Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B100 SUN YELLOW**
Chemical name	Preseodymium yellow
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment yellow 159	68187-15-5	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material. Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Yellow powder, odourless
Flash point (ºC)	Not applicable
Flammability	Not applicable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$	
R-Phrases	R20 Harmful by inhalation	
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs S20/21 When using do not eat, drink or smoke S22 Do not breath dust or spray	
UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Quartz (total)	0.3.	8
Zirconium compounds (as Zr)	5	45

* Refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B101 Maize yellow**
Chemical name	Preseodymium yellow, and orange pigment.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment yellow 159	68187-15-5	66
C.I.Pigment brown 24	68186-90-3	34

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflamation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)

Storage	Store in dry area

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Cream powder, odourless
Flash point (ºC)	Not applicable
Flammability	Not applicable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	None known
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful
R-Phrases	R20/21 Harmful by inhalation and if swallowed.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs S20/21 When using do not eat, drink or smoke S22 Do not breath dust or spray

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Zirconium compounds (as Zr)	5	26

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Saftey Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B102 Emerald green**
Chemical name	Zircon / praseodymium green pigment.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment yellow 159	68187-15-5	66
C.I.Pigment blue 71	68186-95-8	34

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)

Storage	Store in dry area

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Green powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	None known
Health effects	Prolonged or repeated exposure above occupational exposure standards may cause lung or kidney damage.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful
R-Phrases	R20/22 Harmful by inhalation and if swallowed. R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs S20/21 When using do not eat, drink or smoke S28 After contact with skin, wash immediately with plenty of soap and water.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Quartz (total)	0.3	5
Zirconium compounds (as Zr)	5	30

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

20.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B103 Forest Green.**
Chemical name	Green ceramic stain.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment green 17	68909-79-5	56

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)

Storage	Store in dry area

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Green powder, odourless
Flash point (ºC)	Not applicable
Flammability	Not applicable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful
R-Phrases	R20/22 Harmful by inhalation and if swallowed. R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs S20/21 When using do not eat, drink or smoke. S22 Do not breath dust. S28 After contact with skin, wash immediately with plenty of soap and water. S44 If you feel unwell seek medical advice.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Chromium compounds	0.5	56

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

20.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B104 Marine green.**
Chemical name	Cobalt chromite blue-green spinal.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment blue 36	68187-11-1	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)

Storage	Store in dry area

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Green powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	The colour is not likely to be toxic.
Health effects	None known.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
	R43 May cause sensitisation by skin contact.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs
	S20/21 When using do not eat, drink or smoke.
	S24 Avoid contact with skin.
	S28 After contact with skin, wash immediately with plenty of soap and water.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Cobalt compounds (as Co)	0.10	4.5

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B105 Azure blue.**
Chemical name	Zircon Vanadium blue.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment blue 71	68186-95-8	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)

Storage	Store in dry area

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Blue powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	None known.
Health effects	Prolonged or repeated exposure above occupational exposure standards may cause lung or kidney damage.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful
R-Phrases	R20/22 Harmful by inhalation and if swallowed R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs S20/21 When using do not eat, drink or smoke. S28 After contact with skin, wash immediately with plenty of soap and water.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Barium compounds (as Ba)	0.5	1.5

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

20.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B106 Cobalt blue.**
Chemical name	Cobalt silicate blue.
Synonyms	Olivine.
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

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2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment blue 73	68187-40-6	100

---

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation. Some cobalt compounds have been known to produce dermatitis and sensitisation.

---

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

---

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

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6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

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7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure

limits (refer to Guidance Note EH40 - latest edition)

Storage Store in dry area

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Blue powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	None known.
Health effects	Prolonged or repeated exposure above occupational exposure standards may cause fibrosis of the lungs.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful
R-Phrases	R20/22 Harmful by inhalation and if swallowed R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs S20/21 When using do not eat, drink or smoke. S22 Do not breath dust.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Cobalt compounds.	0.1	48

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

20.08.21

WG Ball
MAKERS OF COLOUR

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name	B107 .Purple.
Chemical Name	Cobalt Tin.
CAS Number	no number
EC Number	no number

1.2 Relevant identified uses of the substance or mixture and uses.

Pigment for glazing and ceramics

1.3 Details of the supplier of the safety data sheet

W.G. Ball Ltd
Anchor Road
Longton
Stoke on Trent
ST3 1JW
United Kingdom
Tel: (01782) 313956 & 312286
Email: sales@wgball.com

1.4 Emergency telephone number:

01782-313956
Hours of operation: Mon-Fri 08:00 - 16:00 hours

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS07 Warning

Acute toxicity (inhalation) Category 4,	H332
Acute toxicity (oral) Category 4,	H302
Specific Target Organ Toxicity -	H373

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Harmful Xn

R20/22: Harmful by inhalation and if swallowed.
R33: Danger of cumulative effects
R48: Danger of serious damage to health by prolonged exposure.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard Pictogram	GHS07
Signal word	Warning
Hazard determining components of labeling:	void

Hazard statements

H302: Harmful if swallowed.
H332: Harmful if inhaled.
H373: May cause damage to organs through prolonged or repeated exposure .

Precautionary statements

P270:	Do not eat, drink or smoke when using this product.
P262:	Do not get in eyes, on skin, on clothing
P302 + P352:	IF ON SKIN: Wash with plenty of soap and water.

2.3 Other hazards: no known

Inhalation	Excessive exposure may cause symptons of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation. Some cobalt compounds have been known to produce dermatitis and sensitisation.

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3. Composition/information on ingredients

3.1 Substances

CAS No.	no number
Identification number(s)	3210
EINECS number:	no number
Index number:	no number
Trade name:	Purple Stain.
Composition:	Calcined Cobalt/ Tin mixture.

---

4. First Aid Measures

4.1 Description of first aid measures

Inhalation	**:**	Remove patient to fresh air, loosen clothing & seek medical attention.
Ingestion	**:**	Do not induce vomiting seek medical advice.
Eyes	**:**	Wash immediately with copious amounts of water.
Skin	**:**	Wash affected areas with water.

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

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5. Fire Fighting Measures

5.1 Extinguishing media

Extinguishing Media :	Suitable for surrounding fire conditions.
Special Exposure Hazard**:**	In the event of fire, the product may emit harmful or toxic

5.2 Special hazards arising from the substance or mixture

None known

5.3 Advice for firefighters

Personal Protective Equipment**:**	Self contained breathing apparatus.

---

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Personal Protective Equipment**:**	Respiratory protective equipment.

6.2 Environmental precautions

No special precautions

6.3 Methods and material for containment and cleaning up

Leaks and Spills :	Use suitable vacuum equipment where practicable, otherwise damp down and scoop into a container.

6.4 Reference to other sections

See section 8 for information on personal protective equipment.

---

7. Handling and Storage

7.1 Precautions for safe handling

Handling :	Do not eat, drink or smoke in areas where the material is used. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage: Store in a dry area.

8. Exposure Controls/Personal Protective Equipment

8.1 Control parameters

no special ones

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Adequate ventilation should be provided so that occupational exposure limits are not exceeded. Local exhaust ventilation is normally recommended.

8.2.2 Individual protection measures:

Personal Protective Equipment**:**

Where L.E.V.is not practicable and exposure is likely to be excessive,approved respiratory protection conforming to CEN standards EN 140,141,143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

8.2.3 Environmental exposure controls:

9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance & Odour	:	Purple, odourless powder.
Flash Point	:	Not applicable.
Flammability	:	Does not support combustion.
Explosive Properties	:	Non explosive.
Oxidising Properties	:	None.
Specific Gravity	:	N.A.
Solubility	:	Insoluble.
Melting Point	:	N.A.

9.2 Other information

No further relevant information available.

10. Stability and Reactivity

10.1 Reactivity

The substance is non-reactive

10.2 Chemical stability

The material is stable.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

None known.

11. Toxicological Information

11.1 Information on toxicological effects

Prolonged or repeated exposure above Occpational Exposure Standards may cause fibrosis of the lungs.

12. Ecological Information

12.1 Toxicity

Not known.

12.2 Persistence and degradability

Not known.

12.3 Bioaccumulative potential

Not known.

12.4 Mobility in soil

Not known.

12.5 Results of PBT and vPvB assessment

Not known.

12.6 Other adverse effects

Not known.

13. Disposal

Dispose of in accordance with current waste disposal regulations (for U.K. - Control of Pollution [Special Waste] Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

14.1	U.N./S.I. No.	:	Not classified.
14.2	U.N. Class	:	Not classified.
14.3	Transport hazard class:		Not classified.
14.4	Packing Group	:	Not classified.
14.5	Environmental Hazards:		
	Road:- U.K.	:	Not classified.
	A.D.R.	:	Not classified.
	Sea:- I.M.O.	:	Not classified.
	Air:- I.C.A.O.	:	Not classified.

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms : GHS07

Signal word : Warning

Hazard-determining components of labelling: Void

Hazard statements :

H302: Harmful if swallowed.

H332: Harmful if inhaled.

H373: May cause damage to organs through prolonged or repeated exposure .

Precautionary statements

P270: Do not eat, drink or smoke when using this product.

P262: Do not get in eyes, on skin, on clothing

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

U. K. Occupational Exposure Limits:	mg/m3 8 hr TWA.	% in product.
Cobalt compounds (as Co)	0.1	6.20

EU directives

Regulation of the European Parliament and of the Council(EC) No 1272/2008 of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and

Corrigendum to Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended.

2000/532/EC: Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended.

Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances, as amended.

16. Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B108 Chrome tin pink.**
Chemical name	Sphene, Chromium tin pink
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

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2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Red 233	68187-12-2	100

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3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

---

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

---

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

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6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

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7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)

Storage	Store in dry area

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Pink powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	None required by directive 88/379/EEC
R-Phrases	None.
S-Phrases	Optional for dusty powders; S20/21 When using do not eat, drink or smoke. S22 Do not breath dust.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Total inhalable dust	10.0	
Total respirable dust	4.0	

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

20.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B110 Nut brown.**
Chemical name	Chrome, iron, zinc spinel.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Brown 33	68186-88-9	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)

Storage Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Brown powder, odourless
Flash point (ºC)	Not applicable
Flammability	Not applicable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed. R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs. S20/21 When using do not eat, drink or smoke. S28 After contact with skin wash immediately with plenty of soap and water.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Chromium compounds	0.5	36

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B112 Lime green.**
Chemical name	Vanadium green.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 Fax: 01761 414115 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Yellow 159	68187-15-5	30
C.I.Pigment Blue 71	68186-95-8	70

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Lime powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs.
	S20/21 When using do not eat, drink or smoke.
	S28 After contact with skin wash immediately with plenty of soap and water.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Barium compounds (as Ba)	0.5	0.8

* Refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B113 Victoria green.**
Chemical name	Victoria green garnet.
Synonyms	3215
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Green 51	68553-01-5	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)

Storage Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Light green powder, odourless
Flash point (ºC)	Not applicable
Flammability	Not applicable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed. R33 Danger of cumulative effects.
S-Phrases	S20/21 When using do not eat, drink or smoke. S22 Do not breath dust.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Chromium compounds	0.5	13

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B114 Persian green.**
Chemical name	Cobalt Chromite blue green spinel.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 FE-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Blue 36	68187-11-1	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)

Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Blue-green powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
	R43 May cause sensitisation by skin contact.
S-Phrases	S20/21 When using do not eat, drink or smoke.
	S24 Avoid contact with skin

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Cobalt compounds	0.10	25

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B115 Turquoise green.**
Chemical name	Cobalt Chromite blue green spinel.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Blue 36	68187-11-1	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure

	limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Green powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed. R33 Danger of cumulative effects. R43 May cause sensitisation by skin contact.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs. S20/21 When using do not eat, drink or smoke. S24 Avoid contact with skin

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Cobalt compounds	0.10	8.0

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B116 Turquoise blue.**
Chemical name	Zircon vanadium blue.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Blue 71	68186-95-8	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation. Some cobalt compounds have been known to produce dermatitis and sensitisation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Blue powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs.
	S20/21 When using do not eat, drink or smoke.
	S28 After contact with skin, wash immediately with plenty of soap and water.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Barium compounds (as Ba)	0.5	1.5

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B117 Cornflower blue.**
Chemical name	Cobalt, Zinc, Silicate Blue Phenacite.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

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2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Blue 74	68412-74-8	100

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3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation. Some cobalt compounds have been known to produce dermatitis and sensitisation.

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4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

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5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

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6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

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7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure

	limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Blue powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
	R43 May cause sensitisation by skin contact.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs.
	S20/21 When using do not eat, drink or smoke.
	S24 Avoid contact with skin.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Cobalt compounds	0.10	34

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

20.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B118 Mazerine blue.**
Chemical name	Cobalt Silicate Blue.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

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2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Blue 73	68187-40-6	100

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3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation. Some cobalt compounds have been known to produce dermatitis and sensitisation.

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4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

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5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

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6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

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7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure

limits (refer to Guidance Note EH40 - latest edition)

Storage Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Blue powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	None known.
Health effects	Prolonged or repeated exposure above OE Limits may cause fibrosis of the lungs.

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed. R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs. S20/21 When using do not eat, drink or smoke. S22 Do not breath dust.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Cobalt compounds	0.10	48

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B119 Purple.**
Chemical name	Unknown.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

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2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Red 233	68187-12-2	65
C.I.Pigment Blue 71	68412-74-8	35

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3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation. Some cobalt compounds have been known to produce dermatitis and sensitisation.

---

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

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5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

---

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

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7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with

	occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Purple powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
	R43 May cause sensitisation by skin contact.
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs.
	S20/21 When using do not eat, drink or smoke.
	S24 Avoid contact with skin.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Cobalt compounds	0.10	2.5

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B120 Crimson.**
Chemical name	Spene, Chromium tin pink
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Red 233	68187-12-2	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Pink powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	None required by directive 88/379/EEC
R-Phrases	None.
S-Phrases	Optional for dusty powders: S20/21 When using do not eat, drink or smoke. S38 In case of insufficient ventilation wear suitable respiratory equipment.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Dusts: Total inhalable	10.0	
Respirable	4.0	

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

20.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B121 Tan pink.**
Chemical name	Corundum Chromium Pink
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Red 230	68187-27-9	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Pink powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	None required by directive 88/379/EEC
R-Phrases	None.
S-Phrases	Optional for dusty powders: S20/21 When using do not eat, drink or smoke. S38 In case of insufficient ventilation wear suitable respiratory equipment.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Dusts: Total inhalable	10.0	
Respirable	4.0	

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B122 Orange.**
Chemical name	Orange ceramic pigment.
Synonyms	3201
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment 24	68186-90-3	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Orange powder, odourless
Flash point (ºC)	Not applicable
Flammability	Not applicable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
S-Phrases	S20/21 When using do not eat, drink or smoke. S22 Do not breath dust. S25 Avoid contact with eyes.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Antimony compounds	0.5	10
Chromium compounds	0.5	2

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

WG Ball
MAKERS OF COLOUR

1. Identification of Preparation

Trade Name	B123
Chemical Name	Zircon,praseodymium yellow.
CAS Number	68187-15-5*
CI 77997.	C.I.Pigment Yellow 159.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Pigment for vitreous oxides.

1.3 Details of the supplier of the safety data sheet

W.G. Ball Ltd
Anchor Road
Longton
Stoke on Trent
ST3 1JW
United Kingdom
Tel: (01782) 313956 & 312286
Email: sales@wgball.com

1.4 Emergency telephone number:

01782-313956
Hours of operation: Mon-Fri 08:00 - 16:00 hours

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2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
not classified
Classification according to Directive 67/548/EEC or Directive 1999/45/EC
not classified

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard Pictogram	void
Signal word	void
Hazard determining components of labeling:	void
Hazard statements	void

Precautionary statements

P270 Do not eat, drink or smoke when using this product.
P285 In case of inadequate ventilation, wear respiratory protection.

2.3 Other hazards:

Inhalation	:	Excessive exposure may cause symptons of chronic lung disease.
Ingestion	:	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	:	May cause physical irritation and inflammation.
Skin	:	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

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3. Composition/information on ingredients

3.1 Substances

CAS No.	68187-15-5*
Identification number(s)	3221
C.I.77997.	C.I.Pigment Yellow 159.

Composition: (Zr,Pr) Si02.

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4. First Aid Measures

4.1 Description of first aid measures

Inhalation **:** Remove patient to fresh air, loosen clothing & seek medical attention.
Ingestion **:** Do not induce vomiting seek medical advice.
Eyes **:** Wash immediately with copious amounts of water.
Skin **:** Wash affected areas with water.

---

5. Fire Fighting Measures

5.1 Extinguishing media

Extinguishing Media : Suitable for surrounding fire conditions.
Special Exposure Hazard**:** N.A.

---

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation
Personal Protective Equipment**:** Respiratory protective equipment.

6.2 Environmental precautions

Avoid spreading dust or contaminated materials.

6.3 Methods and material for containment and cleaning up

Leaks and Spills : Use suitable vacuum equipment where practicable, otherwise damp down and scoop into a container.

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7. Handling and Storage

7.1 Precautions for safe handling

Handling : Do not eat, drink or smoke in areas where the material is used.
Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage: Store in a dry area.

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8. Exposure Controls/Personal Protective Equipment

8.1 Control parameters

no special ones

8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Adequate ventilation should be provided so that occupational exposure limits are not exceeded. Local exhaust ventilation is normally recommended.

8.2.2 Individual protection measures:
Personal Protective Equipment**:**
Where L.E.V.is not practicable and exposure is likely to be excessive, approved respiratory protection should be worn.

8.2.3 Environmental exposure controls:

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9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance & Odour **:** Yellow powder.
Flash Point **:** N.A.
Flammability **:** Does not support combustion.
Solubility **:** Insoluble.

Melting Point : > 1000.

9.2 Other information

No further relevant information available.

10. Stability and Reactivity

10.1 Reactivity

The substance is non-reactive

10.2 Chemical stability

The material is stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

No incompatible groups noted.

10.6 Hazardous decomposition products

None known.

11. Toxicological Information

11.1 Information on toxicological effects

No data recorded.

12. Ecological Information

12.1 Toxicity

Not known.

12.2 Persistence and degradability

None.

12.3 Bioaccumulative potential

N.A.

12.4 Mobility in soil

N.A.

12.5 Results of PBT and vPvB assessment

N.A.

12.6 Other adverse effects

None.

13. Disposal

Dispose of in accordance with current waste disposal regulations .

14. Transport Information

14.1	U.N./S.I. No.	:	Not classified.
14.2	U.N. Class	:	N.A.
14.3	Transport hazard class:		N.A.
14.4	Packing Group	:	N.A.
14.5	Environmental Hazards:		N.A.
14.6	Special precaution for user:		N.A.

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Labelling according to Regulation (EC) No 1272/2008

The substance is not classified and labelled according to the CLP regulation.

Precautionary statements

P270 Do not eat, drink or smoke when using this product.

P285 In case of inadequate ventilation, wear respiratory protection.

U. K. Occupational Exposure Limits:	mg/m3 8 hr TWA.	% in product.
Dusts:	Total Inhalable	10.00
	" respirable.	4.00

EU directives

Regulation of the European Parliament and of the Council(EC) No 1272/2008 of 16 December 2008 on classification, labeling and packaging of substances and mixtu amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending R (EC) No 1907/2006.

Corrigendum to Regulation (EC) No 1907/2006 of the European Parliament and of Council of 18 December 2006 concerning the Registration, Evaluation, Authorisatic Restriction of Chemicals (REACH), establishing a European Chemicals Agency, ar Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Com Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commis Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended.

2000/532/EC: Commission Decision of 3 May 2000 replacing Decision 94/3/EC est list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste an Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) Directive 91/689/EEC on hazardous waste, as amended.

Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regul administrative provisions relating to the classification, packaging and labelling of da substances, as amended.

15.2 Chemical safety assessment:

No Chemical Safety Assessment has been carried out.

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16. Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual re

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Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B124 Honey.**
Chemical name	Iron brown hematite.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Red 101/102	1317-63-1	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Brown powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feed stuffs.
	S20/21 When using do not eat, drink or smoke.
	S28 After contact with skin , wash immediately with plenty of soap and water.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Manganese compounds (as Mn)	5.0	7.0

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B125 Autumn Brown.**
Chemical name	Zinc, Iron Chromite Brown Spinel.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Brown 33	68186-88-9	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Light brown powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feed stuffs.
	S20/21 When using do not eat, drink or smoke.
	S28 After contact with skin , wash immediately with plenty of soap and water.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Chromium compounds	0.5	11.0

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

20.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B126 Tan Brown.**
Chemical name	Spinels, Zinc, Iron, Chromium Brown.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Brown 33	68186-88-9	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Brown powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feed stuffs.
	S20/21 When using do not eat, drink or smoke.
	S28 After contact with skin , wash immediately with plenty of soap and water.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Chromium compounds	0.5	12.0

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B127 Sepia.**
Chemical name	Iron Chromate Brown Spinel.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Brown 35	68187-09-7	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Dark brown powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
S-Phrases	S13 Keep away from food, drink and animal feed stuffs.
	S20/21 When using do not eat, drink or smoke.
	S28 After contact with skin , wash immediately with plenty of soap and water.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Chromium compounds	0.5	30.0

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

24.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B128 Grey**
Chemical name	Cobalt / Vanadium.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

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2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Blue 71	68186-95-8	100

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3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation. Some cobalt compounds have been known to produce dermatitis and sensitisation

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4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

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5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

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6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

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7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 – latest edition)

Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Blue/grey powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
	R43 May cause sensitisation by skin contact.
S-Phrases	S13 Keep away from food, drink and animal feed stuffs.
	S20/21 When using do not eat, drink or smoke.
	S24 Avoid contact with skin.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Cobalt compounds (as Co)	0.10	2.2

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

20.08.21

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B129 Black**
Chemical name	Spinels, chromium cobalt iron black.
Synonyms	None
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS EINECS	% of composition
C.I.Pigment Black 27	68186-97-0	100

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation. Some cobalt compounds have been known to produce dermatitis and sensitisation

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	In the event of a fire, the product may emit harmful or toxic fumes.
Protective equipment	Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material Local exhaust ventilation is recommended to comply with

	occupational exposure limits (refer to Guidance Note EH40 – latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Black powder, odourless
Flash point (ºC)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Not applicable
Solubility	Insoluble
Melting point (ºC)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	Likely to be of low toxicity.
Health effects	None known

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Harmful $\mathbf{X_n}$
R-Phrases	R20/22 Harmful by inhalation and if swallowed.
	R33 Danger of cumulative effects.
	R43 May cause sensitisation by skin contact.
S-Phrases	S13 Keep away from food, drink and animal feed stuffs.
	S20/21 When using do not eat, drink or smoke.
	S24 Avoid contact with skin.

UK Occupational exposure limits*	Mg/m^3 8 hr TWA	% in product
Cobalt compounds (as Co)	0.10	26.0
Chromium compounds	0.50	33.0

* refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

20.08.21

Directors:
D.Dodd C.Dodd
L.Dodd D.Bennett

Telephone: Stoke-on-Trent
(01782) 313956 & 312286
Fax: (01780) 598148

WG Ball
MAKERS OF COLOUR

SAFETY DATA SHEET .

1. Identification of Preparation

Trade Name	:	B.137.Delft Blue.
Chemical Name	:	Cobalt silicate.
Supplier	:	W. G. Ball Limited

2. Composition

	C.A.S. No.	% of Composition
C.I.Pigment Blue 73.	68187-40-6*	100.0

3. Health Hazards

Inhalation	:	Excessive exposure may cause symptons of chronic lung disease.
Ingestion	:	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eyes	:	May cause physical irritation and inflammation.
Skin	:	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation. Some cobalt compounds have been known to produce dermatitis and sensitisation.

4. First Aid Measures

Inhalation	:	Remove patient to fresh air, loosen clothing & seek medical attention.
Ingestion	:	Do not induce vomiting seek medical advice.
Eyes	:	Wash immediately with copious amounts of water.
Skin	:	Wash affected areas with water.

5. Fire Fighting Measures

Extinguishing Media	:	Suitable for surrounding fire conditions.
Special Exposure Hazard:		In the event of fire, the product may emit harmful or toxic fumes.
Personal Protective Equipment:		Self contained breathing apparatus.

6. Accidental Release Measures

Leaks and Spills	:	Use suitable vacuum equipment where practicable, otherwise damp down and scoop into a container.
Personal Protective Equipment:		Respiratory protective equipment.

7. Handling and Storage

Handling	:	Do not eat, drink or smoke in areas where the material is used. Wash thoroughly after handling.
Storage	:	Store in a dry area.

8. Exposure Controls/Personal Protective Equipment

Engineering Controls	:	Adequate ventilation should be provided so that occupational exposure limits are not exceeded. Local exhaust ventilation is normally recommended.
Personal Protective Equipment:		Where L.E.V. is not practicable and exposure is likely to be excessive,approved respiratory protection conforming to CEN standards EN 140,141,143 or 149 should be worn.

Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical Properties

Appearance & Odour	:	Blue, odourless powder.
Flash Point	:	Not applicable.
Flammability	:	Does not support combustion.
Explosive Properties	:	Non explosive.
Oxidising Properties	:	None.
Specific Gravity	:	N.A.
Solubility	:	Insoluble.
Melting Point	:	N.A.

10. Stability and Reactivity

Chemical Stability	:	The material is stable.
Conditions/Materials to Avoid	:	None known.
Hazardous Decomposition Products	:	None known.
Hazardous Polymerization Products	:	None.

11. Toxicological Information

Health Effects: The product is likely to be of low toxicity.

12. Ecological Information

Ecotoxicity	:	Not known.
Persistence	:	Not known.

13. Disposal

Dispose of in accordance with current waste disposal regulations (for U.K. - Control of Pollution [Special Waste] Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

U.N./S.I. No.	:	Not classified.
U.N. Class	:	Not classified.
Packing Group	:	Not classified.
Road:- U.K.	:	Not classified.
A.D.R.	:	Not classified.
Sea:- I.M.O.	:	Not classified.
Air:- I.C.A.O.	:	Not classified.

15. Regulatory Information

E.C. Supply Labelling	:	Powder Product.- Harmful.Xn
R-Phrases	:	R20/22: Harmful by inhalation and if swallowed. R43: May cause sensitisation by skin contact.
S-Phrases	:	S13: Keep away from food, drink and animal feeding stuffs. S20/21: When using do not eat, drink or smoke.

U. K. Occupational Exposure Limits:	mg/m3 8 hr TWA.	% in product.
Cobalt compounds (as Co)	0.1	48.00

16. Other Information

Bath Potters' Supplies
MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**B188 Coral**
Chemical name	Iron Pink Satin.
Synonyms	Coral pink
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 E-mail: sales@bathpotters.co.uk

2. Composition

Component	CAS	EINECS	% of composition
C.I.Pigment Red 232	68187-13-3	2690741	>90%
C.I.Pigment Blue 71	*68186-95-8*	2690579	<10%

3. Health Hazard Identification

Inhalation	Excessive exposure may cause symptoms of chronic lung disease.
Ingestion	The product is of low solubility in body fluids and it is likely to be of low acute toxicity.
Eves	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water. Seek medical attention is irritation persist.
Skin	Wash affected areas with water. If irritation persists, seek medical attention

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions. Standard fire fighting techniques only are required, i.e. water, sand, carbon dioxide, chemical foam extinguishers etc.
Special Exposure hazard	None
Protective equipment	None other than required for surrounding fire conditions.

6. Accidental Release Measures

Leaks & Spills	Remove any dry materials either by a vacuum cleaner fitted with an efficient particulate filter or by wet sweeping to avoid dust. Store collected waste in a suitable container before disposal.
Protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after

	handling the material Local exhaust ventilation is recommended to comply with occupational exposure limits
	(refer to Guidance Note EH4O – latest edition)
Storage	Store in dry area.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended.
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards pr EN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical properties

Appearance & Odour	Pink powder, odourless
Flash point (°C)	Not applicable
Flammability	Inflammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	3-5
Solubility	7 (Insoluble in water)
Melting point (°C)	Not available

10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerisation products	None

11. Toxicology Information

Acute toxicology	LD_{50} Oral	>2000 mg/kg
	LD_{50} Dermal	Not known
	LD_{50} Inhalation	Not known
Health effects	Prolonged or repeated exposure to any dust, above Occupational Exposure Standards, may cause fibrosis of the lungs.	

12. Ecological information

Ecotoxicity	Not known.
Persistence	Not known

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK Control of Pollution (Special Waste) Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	None required by directive 88/379/EEC
R-Phrases	None
S-Phrases	Optional safety phrases; S 13 Keep away from food, drink and animal feed stuffs. S20/2 1 When using do not eat, drink or smoke. S38 In case of insufficient ventilation wear suitable respiratory equipment.

UK Occupational exposure limits*	Mg/in^3 8 hr TWA	% in product
Low toxicity dusts; Inhalable	10.0	
Respirable	5.0	

* refer to HSE Guidance note EH4O

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

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16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EI-140:	HSE Guidance note EH4O on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

20.08.21

MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: RED INCLUSION
CAS #: 72828-62-7
CHEMICAL NAME: Zircon, cadmium red
CHEMICAL FORMULA: CdSeZrSi

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components.

The Cadmium is encased in a Zirconium layer which renders the Cadmium insoluble. Cadmium leachability tests performed using ASTM D 5517 – 03 found that over a 24 hour period on average 96 ppm of Cadmium was released into a standard acid solution.

HAZARDOUS COMPONENTS
Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Cadmium/Selenium Compound (CdSeS) (CAS 7440-43-9)	0.01/0.002 resp	0.005	0.1

ACGIH, OSHA, IARC, NTP: consider various forms of cadmium are to be carcinogenic..

Symptoms of Overexposure:

Inhalation: Overexposure to Cadmium can result in metallic taste in mouth, headache, shortness of breath, chest pains, weakness, leg pains and fluid in the lung. These symptoms may be delayed, sometimes occurring 4 – 8 hrs after exposure. Long term overexposure to cadmium fumes and dust have been associated with emphysema, bronchitis and kidney damage. Chronic overexposure to metal and cadmium compounds, such as cadmium oxide, cadmium sulphide, cadmium sulphate and cadmium chloride, may result in lung cancer, although a definite cause-effect relationship has not been fully established.
Eye Contact: May cause irritation.
Skin Contact: May cause irritation.

Ingestion: Swallowing may result in severe nausea, vomiting, diarrhoea, stomach cramps, salivation, headache, muscle cramps and dizziness.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Silica, Crystalline (SiO_2)	0.1	10	0.05
(CAS 14808-60-7)			

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: a) Prolonged exposure to respirable crystalline silica (quartz) can cause Silicosis, a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Silicosis increases risk of Tuberculosis.
b) Inhaled from occupational sources is classified as carcinogenic to humans.
c) There is evidence that exposure to respirable crystalline silica or that the disease Silicosis is associated with increased incidence of Scleroderma, an auto-immune disorder manifested by fibrosis (scarring) of the skin and internal organs.
d) There are several studies suggesting that exposure to respirable silica or that the disease Silicosis is associated with the increased incidence of kidney disorders. (Nephrotoxicity)

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Zirconium Silicate (ZrO) (CAS 1314-24-4)	10/5 resp	15/5 resp	5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Acute inhalation to respirable dust which contains radioactive uranium, thorium and radium may cause lung cancer.

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

SARA III DATA

This product contains the following component(s) that require reporting under section 313 of the Emergency
Section of the Emergency Planning and Community Right-To-Know Act, also knows as Title III of the SARA and 40 CFR Part 372.

COMPONENT	**PERCENT PRESENT**
Cadmium Compound	~ 15 %

The percent reported is based on the theoretical composition of this Stain.

PHYSICAL DESCRIPTION/PROPERTIES:

APPEARANCE:	Red powder.
ODOUR:	None.
BOILING POINT:	Not Applicable
MELTING POINT:	> 600ºC
VAPOUR PRESSURE:	Not Applicable
SPECIFIC GRAVITY:	1.6 – 3.0
SOLUBILITY IN WATER:	Negligible
VISCOSITY:	No Data
pH:	Neutral
VOLATILE ORGANIC COMP:	None

FIRE & EXPLOSION HAZARD

FLASH POINT:	N/A
FLAMMABLE LIMITES:	N/A
EXTINGUISHING MEDIA:	None
USUAL FIRE & EXPLOSION HAZARD:	None

REACTIVITY DATA

STABILITY:	Stable
INCOMPATABILITY:	N/A
HAZARDOUS DECOMPOSITION PRODUCTS:	Avoid fumes form firing
HAZARDOUS POLYMERISATION:	Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the

eyes and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician.
For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.

PRECAUTIONS FOR SAFE HANDLING AND USE:
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food, beverages and smoking materials should NOT be in the working area. Hygiene is very important; employees should wash thoroughly before eating, drinking or smoking.

REGULATORY INFORMATION:

CLASSIFICATION AND LABELLING (EEC)

Classification:

T

Label Information:

R-22 Harmful if swallowed.

R-40 Possible risk of irreversible effects.

R-48/23/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

R-53 May cause long-term adverse effects in the aquatic environment.

S-1/2 Keep locked up and out of the reach of children.

S-22 Do not breathe dust.

S-36/37 Wear suitable protective clothing and gloves.

S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S-61 Avoid release to the environment. Refer to special instructions/ Safety Data Sheets.

OTHER INFORMATION: DISCLAIMER:

Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will conduct his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

KEY/LEGEND:

NA = Not available or Not Applicable; ACGIH = American Conference of Governmental Industrial Hygienists; TLV = Threshold Limit Value; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; CAL/OSHA = California Occupational Safety and Health Administration; CFR = Code of Federal Regulations; FED/OSHS = Federal Occupational Safety and Health Administration; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; PEL = Permissible Exposure Limits; TSCA – Toxic Substances Control Act; TWA = Time Weighted Average; US-EPA = US Environmental Protection Agency.

END OF MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: RED INCLUSION
CAS #: 72828-62-7
CHEMICAL NAME: Zircon, cadmium red
CHEMICAL FORMULA: CdSeZrSi

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components.

The Cadmium is encased in a Zirconium layer which renders the Cadmium insoluble. Cadmium leachability tests performed using ASTM D 5517 – 03 found that over a 24 hour period on average 96 ppm of Cadmium was released into a standard acid solution.

HAZARDOUS COMPONENTS
Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Cadmium/Selenium Compound (CdSeS) (CAS 7440-43-9)	0.01/0.002 resp	0.005	0.1

ACGIH, OSHA, IARC, NTP: consider various forms of cadmium are to be carcinogenic..

Symptoms of Overexposure:

Inhalation: Overexposure to Cadmium can result in metallic taste in mouth, headache, shortness of breath, chest pains, weakness, leg pains and fluid in the lung. These symptoms may be delayed, sometimes occurring 4 – 8 hrs after exposure. Long term overexposure to cadmium fumes and dust have been associated with emphysema, bronchitis and kidney damage. Chronic overexposure to metal and cadmium compounds, such as cadmium oxide, cadmium sulphide, cadmium sulphate and cadmium chloride, may result in lung cancer, although a definite cause-effect relationship has not been fully established.
Eye Contact: May cause irritation.
Skin Contact: May cause irritation.

Ingestion: Swallowing may result in severe nausea, vomiting, diarrhoea, stomach cramps, salivation, headache, muscle cramps and dizziness.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Silica, Crystalline (SiO_2)	0.1	10	0.05
(CAS 14808-60-7)			

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: a) Prolonged exposure to respirable crystalline silica (quartz) can cause Silicosis, a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Silicosis increases risk of Tuberculosis.
b) Inhaled from occupational sources is classified as carcinogenic to humans.
c) There is evidence that exposure to respirable crystalline silica or that the disease Silicosis is associated with increased incidence of Scleroderma, an auto-immune disorder manifested by fibrosis (scarring) of the skin and internal organs.
d) There are several studies suggesting that exposure to respirable silica or that the disease Silicosis is associated with the increased incidence of kidney disorders. (Nephrotoxicity)

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Zirconium Silicate (ZrO) (CAS 1314-24-4)	10/5 resp	15/5 resp	5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Acute inhalation to respirable dust which contains radioactive uranium, thorium and radium may cause lung cancer.

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

SARA III DATA

This product contains the following component(s) that require reporting under section 313 of the Emergency
Section of the Emergency Planning and Community Right-To-Know Act, also knows as Title III of the SARA and 40 CFR Part 372.

COMPONENT	**PERCENT PRESENT**
Cadmium Compound	~ 15 %

The percent reported is based on the theoretical composition of this Stain.

PHYSICAL DESCRIPTION/PROPERTIES:

APPEARANCE:	Red powder.
ODOUR:	None.
BOILING POINT:	Not Applicable
MELTING POINT:	> 600ºC
VAPOUR PRESSURE:	Not Applicable
SPECIFIC GRAVITY:	1.6 – 3.0
SOLUBILITY IN WATER:	Negligible
VISCOSITY:	No Data
pH:	Neutral
VOLATILE ORGANIC COMP:	None

FIRE & EXPLOSION HAZARD

FLASH POINT:	N/A
FLAMMABLE LIMITES:	N/A
EXTINGUISHING MEDIA:	None
USUAL FIRE & EXPLOSION HAZARD:	None

REACTIVITY DATA

STABILITY:	Stable
INCOMPATABILITY:	N/A
HAZARDOUS DECOMPOSITION PRODUCTS:	Avoid fumes form firing
HAZARDOUS POLYMERISATION:	Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the

eyes and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician.
For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.

PRECAUTIONS FOR SAFE HANDLING AND USE:
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food, beverages and smoking materials should NOT be in the working area. Hygiene is very important; employees should wash thoroughly before eating, drinking or smoking.

REGULATORY INFORMATION:

CLASSIFICATION AND LABELLING (EEC)

Classification:

T

Label Information:

R-22 Harmful if swallowed.

R-40 Possible risk of irreversible effects.

R-48/23/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

R-53 May cause long-term adverse effects in the aquatic environment.

S-1/2 Keep locked up and out of the reach of children.

S-22 Do not breathe dust.

S-36/37 Wear suitable protective clothing and gloves.

S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S-61 Avoid release to the environment. Refer to special instructions/ Safety Data Sheets.

OTHER INFORMATION: DISCLAIMER:

Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will conduct his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

KEY/LEGEND:

NA = Not available or Not Applicable; ACGIH = American Conference of Governmental Industrial Hygienists; TLV = Threshold Limit Value; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; CAL/OSHA = California Occupational Safety and Health Administration; CFR = Code of Federal Regulations; FED/OSHS = Federal Occupational Safety and Health Administration; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; PEL = Permissible Exposure Limits; TSCA – Toxic Substances Control Act; TWA = Time Weighted Average; US-EPA = US Environmental Protection Agency.

END OF MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: ORANGE STAIN
CAS #: 99749-34-5
CHEMICAL NAME: Zircon, cadmium orange
CHEMICAL FORMULA: CdSeZrSi

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components.

The Cadmium is encased in a Zirconium layer which renders the Cadmium insoluble. Cadmium leachability tests performed using ASTM D 5517 – 03 found that over a 24 hour period on average 167 ppm of Cadmium was released into a standard acid solution.

HAZARDOUS COMPONENTS
Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Cadmium/Selenium Compound (CdSeS) (CAS 7440-43-9)	0.01/0.002 resp	0.005	0.1

ACGIH, OSHA, IARC, NTP: consider various forms of cadmium are to be carcinogenic..
Symptoms of Overexposure:

Inhalation: Overexposure to Cadmium can result in metallic taste in mouth, headache, shortness of breath, chest pains, weakness, leg pains and fluid in the lung. These symptoms may be delayed, sometimes occurring 4 – 8 hrs after exposure. Long term overexposure to cadmium fumes and dust have been associated with emphysema, bronchitis and kidney damage. Chronic overexposure to metal and cadmium compounds, such as cadmium oxide, cadmium sulphide, cadmium sulphate and cadmium chloride, may result in lung cancer, although a definite cause-effect relationship has not been fully established.

Eye Contact: May cause irritation.

Skin Contact: May cause irritation.

Ingestion: Swallowing may result in severe nausea, vomiting, diarrhoea, stomach cramps, salivation, headache, muscle cramps and dizziness.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Silica, Crystalline (SiO_2)	0.1	10	0.05
(CAS 14808-60-7)			

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: a) Prolonged exposure to respirable crystalline silica (quartz) can cause Silicosis, afibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Silicosis increases risk of Tuberculosis.
b) Inhaled from occupational sources is classified as carcinogenic to humans.
c) There is evidence that exposure to respirable crystalline silica or that the disease Silicosis is associated with increased incidence of Scleroderma, an auto-immune disorder manifested by fibrosis (scarring) of the skin and internal organs.
d) There are several studies suggesting that exposure to respirable silica or that the disease Silicosis is associated with the increased incidence of kidney disorders. (Nephrotoxicity)

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Zirconium Silicate (ZrO)	10/5 resp	15/5 resp	5
(CAS 1314-24-4)			

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Acute inhalation to respirable dust which contains radioactive uranium, tohium and radium may cause lung cancer.

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

SARA III DATA

This product contains the following component(s) that require reporting under section 313 of the Emergency Section of the Emergency Planning and Community Right-To-Know Act, also knows as

Title III of the SARA and 40 CFR Part 372.

COMPONENT	**PERCENT PRESENT**
Cadmium Compound	~ 15 %

The percent reported is based on the theoretical composition of this Stain.

PHYSICAL DESCRIPTION/PROPERTIES:

APPEARANCE:	Orange powder.
ODOUR:	None.
BOILING POINT:	Not Applicable
MELTING POINT:	> 600^{o}C
VAPOUR PRESSURE:	Not Applicable
SPECIFIC GRAVITY:	1.6 – 3.0
SOLUBILITY IN WATER:	Negligible
VISCOSITY:	No Data
pH:	Neutra
VOLATILE ORGANIC COMP:	None

FIRE & EXPLOSION HAZARD

FLASH POINT:	N/A
FLAMMABLE LIMITES:	N/A
EXTINGUISHING MEDIA:	None
USUAL FIRE & EXPLOSION HAZARD:	None

REACTIVITY DATA

STABILITY:	Stable
INCOMPATABILITY:	N/A
HAZARDOUS DECOMPOSITION PRODUCTS:	Avoid fumes form firing
HAZARDOUS POLYMERISATION:	Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the eyes and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in

industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.**PRECAUTIONS FOR SAFE HANDLING AND USE:**
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food, beverages and smoking materials should NOT be in the working area. Hygiene is very important; employees should wash thoroughly before eating, drinking or smoking.

REGULATORY INFORMATION: CLASSIFICATION AND LABELLING (EEC)
Classification:
T
Label Information:

R-22 Harmful if swallowed.
R-40 Possible risk of irreversible effects.
R-48/23/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R-53 May cause long-term adverse effects in the aquatic environment.
S-1/2 Keep locked up and out of the reach of children.
S-22 Do not breathe dust.
S-36/37 Wear suitable protective clothing and gloves.
S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S-61 Avoid release to the environment. Refer to special instructions/ Safety Data Sheets.

OTHER INFORMATION: DISCLAIMER:

Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will conduct his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

KEY/LEGEND:

NA = Not available or Not Applicable; ACGIH = American Conference of Governmental Industrial Hygienists; TLV = Threshold Limit Value; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; CAL/OSHA = California Occupational Safety and Health Administration; CFR = Code of Federal Regulations; FED/OSHS = Federal Occupational Safety and Health Administration; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; PEL = Permissible Exposure Limits; TSCA – Toxic Substances Control Act; TWA = Time Weighted Average; US-EPA = US Environmental Protection Agency

END OF MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: ORANGE STAIN
CAS #: 99749-34-5
CHEMICAL NAME: Zircon, cadmium orange
CHEMICAL FORMULA: CdSeZrSi

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components.

The Cadmium is encased in a Zirconium layer which renders the Cadmium insoluble. Cadmium leachability tests performed using ASTM D 5517 – 03 found that over a 24 hour period on average 167 ppm of Cadmium was released into a standard acid solution.

HAZARDOUS COMPONENTS
Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Cadmium/Selenium Compound (CdSeS) (CAS 7440-43-9)	0.01/0.002 resp	0.005	0.1

ACGIH, OSHA, IARC, NTP: consider various forms of cadmium are to be carcinogenic..
Symptoms of Overexposure:

Inhalation: Overexposure to Cadmium can result in metallic taste in mouth, headache, shortness of breath, chest pains, weakness, leg pains and fluid in the lung. These symptoms may be delayed, sometimes occurring 4 – 8 hrs after exposure. Long term overexposure to cadmium fumes and dust have been associated with emphysema, bronchitis and kidney damage. Chronic overexposure to metal and cadmium compounds, such as cadmium oxide, cadmium sulphide, cadmium sulphate and cadmium chloride, may result in lung cancer, although a definite cause-effect relationship has not been fully established.

Eye Contact: May cause irritation.

Skin Contact: May cause irritation.

Ingestion: Swallowing may result in severe nausea, vomiting, diarrhoea, stomach cramps, salivation, headache, muscle cramps and dizziness.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Silica, Crystalline (SiO_2)	0.1	10	0.05
(CAS 14808-60-7)			

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: a) Prolonged exposure to respirable crystalline silica (quartz) can cause Silicosis, afibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Silicosis increases risk of Tuberculosis.
b) Inhaled from occupational sources is classified as carcinogenic to humans.
c) There is evidence that exposure to respirable crystalline silica or that the disease Silicosis is associated with increased incidence of Scleroderma, an auto-immune disorder manifested by fibrosis (scarring) of the skin and internal organs.
d) There are several studies suggesting that exposure to respirable silica or that the disease Silicosis is associated with the increased incidence of kidney disorders. (Nephrotoxicity)

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Zirconium Silicate (ZrO)	10/5 resp	15/5 resp	5
(CAS 1314-24-4)			

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Acute inhalation to respirable dust which contains radioactive uranium, tohium and radium may cause lung cancer.

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

SARA III DATA

This product contains the following component(s) that require reporting under section 313 of the Emergency Section of the Emergency Planning and Community Right-To-Know Act, also knows as

Title III of the SARA and 40 CFR Part 372.

COMPONENT	**PERCENT PRESENT**
Cadmium Compound	~ 15 %

The percent reported is based on the theoretical composition of this Stain.

PHYSICAL DESCRIPTION/PROPERTIES:

APPEARANCE:	Orange powder.
ODOUR:	None.
BOILING POINT:	Not Applicable
MELTING POINT:	> 600^{o}C
VAPOUR PRESSURE:	Not Applicable
SPECIFIC GRAVITY:	1.6 – 3.0
SOLUBILITY IN WATER:	Negligible
VISCOSITY:	No Data
pH:	Neutra
VOLATILE ORGANIC COMP:	None

FIRE & EXPLOSION HAZARD

FLASH POINT:	N/A
FLAMMABLE LIMITES:	N/A
EXTINGUISHING MEDIA:	None
USUAL FIRE & EXPLOSION HAZARD:	None

REACTIVITY DATA

STABILITY:	Stable
INCOMPATABILITY:	N/A
HAZARDOUS DECOMPOSITION PRODUCTS:	Avoid fumes form firing
HAZARDOUS POLYMERISATION:	Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the eyes and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in

industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.**PRECAUTIONS FOR SAFE HANDLING AND USE:**
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food, beverages and smoking materials should NOT be in the working area. Hygiene is very important; employees should wash thoroughly before eating, drinking or smoking.

REGULATORY INFORMATION: CLASSIFICATION AND LABELLING (EEC)
Classification:
T
Label Information:

R-22 Harmful if swallowed.
R-40 Possible risk of irreversible effects.
R-48/23/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R-53 May cause long-term adverse effects in the aquatic environment.
S-1/2 Keep locked up and out of the reach of children.
S-22 Do not breathe dust.
S-36/37 Wear suitable protective clothing and gloves.
S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S-61 Avoid release to the environment. Refer to special instructions/ Safety Data Sheets.

OTHER INFORMATION: DISCLAIMER:

Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will conduct his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

KEY/LEGEND:

NA = Not available or Not Applicable; ACGIH = American Conference of Governmental Industrial Hygienists; TLV = Threshold Limit Value; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; CAL/OSHA = California Occupational Safety and Health Administration; CFR = Code of Federal Regulations; FED/OSHS = Federal Occupational Safety and Health Administration; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; PEL = Permissible Exposure Limits; TSCA – Toxic Substances Control Act; TWA = Time Weighted Average; US-EPA = US Environmental Protection Agency

END OF MATERIAL SAFETY DATA SHEET

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Web: http://www.cszl.com.cn/. Email: geoff_chen@hotmail.com

MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: YELLOW INCLUSION STAIN JH-488B
CAS #: 72828-62-7
CHEMICAL NAME: Zircon, cadmium yellow
CHEMICAL FORMULA: CdZrSi

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components.

The Cadmium is encased in a Zirconium layer which renders the Cadmium insoluble.

HAZARDOUS COMPONENTS
Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Cadmium Compound (CdS) (CAS 7440-43-9)	0.01/0.002 resp	0.005	0.1

ACGIH, OSHA, IARC, NTP: consider various forms of cadmium are to be carcinogenic..

Symptoms of Overexposure:

Inhalation: Overexposure to Cadmium can result in metallic taste in mouth, headache, shortness of breath, chest pains, weakness, leg pains and fluid in the lung. These symptoms may be delayed, sometimes occurring 4 – 8 hrs after exposure. Long term overexposure to cadmium fumes and dust have been associated with emphysema, bronchitis and kidney damage. Chronic overexposure to metal and cadmium compounds, such as cadmium oxide, cadmium sulphide, cadmium sulphate and cadmium chloride, may result in lung cancer, although a definite cause-effect relationship has not been fully established.

Eye Contact: May cause irritation.

Skin Contact: May cause irritation.

Ingestion: Swallowing may result in severe nausea, vomiting, diarrhoea, stomach cramps, salivation, headache, muscle cramps and dizziness.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Silica, Crystalline (SiO_2) (CAS 14808-60-7)	0.1	10	0.05

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: a) Prolonged exposure to respirable crystalline silica (quartz) can cause Silicosis, a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Silicosis increases risk of Tuberculosis.
b) Inhaled from occupational sources is classified as carcinogenic to humans.
c) There is evidence that exposure to respirable crystalline silica or that the disease Silicosis is associated with increased incidence of Scleroderma, an auto-immune disorder manifested by fibrosis (scarring) of the skin and internal organs.
d) There are several studies suggesting that exposure to respirable silica or that the disease Silicosis is associated with the increased incidence of kidney disorders. (Nephrotoxicity)

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Zirconium Silicate (ZrO) (CAS 1314-24-4)	10/5 resp	15/5 resp	5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Acute inhalation to respirable dust which contains radioactive uranium, thorium and radium may cause lung cancer.

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

SARA III DATA

This product contains the following component(s) that require reporting under section 313 of the Emergency Section of the Emergency Planning and Community Right-To-Know Act, also knows as Title III of the SARA and 40 CFR Part 372.

COMPONENT	**PERCENT PRESENT**
Cadmium Compound	~ 15 %

The percent reported is based on the theoretical composition of this Stain.

PHYSICAL DESCRIPTION/PROPERTIES:

APPEARANCE:	Yellow powder.
ODOUR:	None.
BOILING POINT:	Not Applicable
MELTING POINT:	> 600^{O}c
VAPOUR PRESSURE:	Not Applicable
SPECIFIC GRAVITY:	1.6 – 3.0
SOLUBILITY IN WATER:	Negligible
VISCOSITY:	No Data
pH:	Neutral
VOLATILE ORGANIC COMP:	None

FIRE & EXPLOSION HAZARD

FLASH POINT:	N/A
FLAMMABLE LIMITES:	N/A
EXTINGUISHING MEDIA:	None
USUAL FIRE & EXPLOSION HAZARD:	None

REACTIVITY DATA

STABILITY:	Stable
INCOMPATABILITY:	N/A
HAZARDOUS DECOMPOSITION PRODUCTS:	Avoid fumes form firing
HAZARDOUS POLYMERISATION:	Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

FFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the eyes
and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause

lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.

PRECAUTIONS FOR SAFE HANDLING AND USE:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food,beverages and smoking materials should NOT be in the working area. Hygiene is very important;employees should wash thoroughly before eating,drinking or smoking.

REGULATORY INFORMATION:

CLASSIFICATION AND LABELLING (EEC)

Classification:
T
Label Information:
R-22 Harmful if swallowed.
R-40 Possible risk of irreversible effects.
R-48/23/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R-53 May cause long-term adverse effects in the aquatic environment.
S-1/2 Keep locked up and out of the reach of children.
S-22 Do not breathe dust.
S-36/37 Wear suitable protective clothing and gloves.
S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S-61 Avoid release to the environment. Refer to special instructions/ Safety Data Sheets.

OTHER INFORMATION:

DISCLAIMER:

Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will conduct his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

KEY/LEGEND:
NA = Not available or Not Applicable; ACGIH = American Conference of Governmental Industrial Hygienists; TLV = Threshold Limit Value; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; CAL/OSHA = California Occupational Safety and Health Administration; CFR = Code of Federal Regulations; FED/OSHS = Federal Occupational Safety and Health Administration; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; PEL = Permissible Exposure Limits; TSCA – Toxic Substances Control Act; TWA = Time Weighted Average; US-EPA = US Environmental Protection Agency

END OF MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: ORANGE STAIN
CAS #: 99749-34-5
CHEMICAL NAME: Zircon, cadmium orange
CHEMICAL FORMULA: CdSeZrSi

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components.

The Cadmium is encased in a Zirconium layer which renders the Cadmium insoluble. Cadmium leachability tests performed using ASTM D 5517 – 03 found that over a 24 hour period on average 167 ppm of Cadmium was released into a standard acid solution.

HAZARDOUS COMPONENTS
Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Cadmium/Selenium Compound (CdSeS) (CAS 7440-43-9)	0.01/0.002 resp	0.005	0.1

ACGIH, OSHA, IARC, NTP: consider various forms of cadmium are to be carcinogenic..
Symptoms of Overexposure:

Inhalation: Overexposure to Cadmium can result in metallic taste in mouth, headache, shortness of breath, chest pains, weakness, leg pains and fluid in the lung. These symptoms may be delayed, sometimes occurring 4 – 8 hrs after exposure. Long term overexposure to cadmium fumes and dust have been associated with emphysema, bronchitis and kidney damage. Chronic overexposure to metal and cadmium compounds, such as cadmium oxide, cadmium sulphide, cadmium sulphate and cadmium chloride, may result in lung cancer, although a definite cause-effect relationship has not been fully established.

Eye Contact: May cause irritation.

Skin Contact: May cause irritation.

Ingestion: Swallowing may result in severe nausea, vomiting, diarrhoea, stomach cramps, salivation, headache, muscle cramps and dizziness.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Silica, Crystalline (SiO_2)	0.1	10	0.05
(CAS 14808-60-7)			

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: a) Prolonged exposure to respirable crystalline silica (quartz) can cause Silicosis, afibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Silicosis increases risk of Tuberculosis.
b) Inhaled from occupational sources is classified as carcinogenic to humans.
c) There is evidence that exposure to respirable crystalline silica or that the disease Silicosis is associated with increased incidence of Scleroderma, an auto-immune disorder manifested by fibrosis (scarring) of the skin and internal organs.
d) There are several studies suggesting that exposure to respirable silica or that the disease Silicosis is associated with the increased incidence of kidney disorders. (Nephrotoxicity)

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Zirconium Silicate (ZrO)	10/5 resp	15/5 resp	5
(CAS 1314-24-4)			

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Acute inhalation to respirable dust which contains radioactive uranium, tohium and radium may cause lung cancer.

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable.

Ingestion: Not applicable.

SARA III DATA

This product contains the following component(s) that require reporting under section 313 of the Emergency Section of the Emergency Planning and Community Right-To-Know Act, also knows as

Title III of the SARA and 40 CFR Part 372.

COMPONENT	**PERCENT PRESENT**
Cadmium Compound	~ 15 %

The percent reported is based on the theoretical composition of this Stain.

PHYSICAL DESCRIPTION/PROPERTIES:

APPEARANCE:	Orange powder.
ODOUR:	None.
BOILING POINT:	Not Applicable
MELTING POINT:	> 600^{o}C
VAPOUR PRESSURE:	Not Applicable
SPECIFIC GRAVITY:	1.6 – 3.0
SOLUBILITY IN WATER:	Negligible
VISCOSITY:	No Data
pH:	Neutra
VOLATILE ORGANIC COMP:	None

FIRE & EXPLOSION HAZARD

FLASH POINT:	N/A
FLAMMABLE LIMITES:	N/A
EXTINGUISHING MEDIA:	None
USUAL FIRE & EXPLOSION HAZARD:	None

REACTIVITY DATA

STABILITY:	Stable
INCOMPATABILITY:	N/A
HAZARDOUS DECOMPOSITION PRODUCTS:	Avoid fumes form firing
HAZARDOUS POLYMERISATION:	Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the eyes and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in

industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.**PRECAUTIONS FOR SAFE HANDLING AND USE:**
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food, beverages and smoking materials should NOT be in the working area. Hygiene is very important; employees should wash thoroughly before eating, drinking or smoking.

REGULATORY INFORMATION: CLASSIFICATION AND LABELLING (EEC)
Classification:
T
Label Information:

R-22 Harmful if swallowed.
R-40 Possible risk of irreversible effects.
R-48/23/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R-53 May cause long-term adverse effects in the aquatic environment.
S-1/2 Keep locked up and out of the reach of children.
S-22 Do not breathe dust.
S-36/37 Wear suitable protective clothing and gloves.
S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S-61 Avoid release to the environment. Refer to special instructions/ Safety Data Sheets.

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END OF MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

Printing Date: JUNE 20 2021

IDENTIFICATION OF SUBSTANCE AND OF THE COMPANY:

ZHONGLONG MATERIALS GROUP
Tel: 0086-731-84427228;84423858 Fax: 0086-731-84453877
www.zpigments.com Email:info@zpigments.com/info@cszl.com.cn

COMPOSITION/DATA ON COMPONENTS:

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: BLUE I STAIN
CAS #: 68186-86-7
CHEMICAL NAME: Cobalt Alumina Blue - Spinel
CHEMICAL FORMULA: CoAl

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components.

HAZARDOUS COMPONENTS

Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m^3		
COMPONENT	ACGIH/TLV	FED-OSHA/PEL	CAL-OSHA/PEL
Cobalt Oxide (Co_3O_4) (CAS 1396-06-1)	0.02	0.5	N/A

ACGIH: Animal carcinogen: Agent is carcinogenic in experimental animals at dose levels, by route (s) of administration at site, or histologic type, or by mechanism considered relevant to workers exposure. Available epidemiologist studies do not confirm an increased risk of cancer in humans except under common levels of exposure.

Symptoms of Overexposure:

Inhalation: Prolonged inhalation of dust or metal dust, and fume or mist containing cobalt may cause serious respiratory illness. May cause an irritation of respiratory organs of sensitive persons resulting in obstruction of airways with shortness of breath.
Eye Contact: May cause serious eye irritation.
Skin Contact: Prolonged exposure may produce irritation.
Ingestion: Large amounts may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhoea.

	Exposure Limit (Air), mg/m^3		
COMPONENT	ACGIH/TLV	FED-OSHA/PEL	CAL-OSHA/PEL
Alumina Oxide (Al_2O_3) (CAS 1344-28-1)	10	15/5 resp	N/A

ACGIH: The value for particulate matter containing no asbestos and 1% crystalline silica.

Symptoms of overexposure:

Inhalation:	Acute may cause coughing and shortness of breath. Chronic may adversely affect breathing capacity.
Eye Contact:	Direct contact may cause irritation.
Skin Contact:	May cause abrasions.
Ingestion:	May cause irritation.

SARA III DATA
This product contains the following component(s) that require reporting under section 313 of the Emergency Section of the Emergency Planning and Community Right-To-Know Act, also knows as Title III of the SARA and 40 CFR Part 372.

COMPONENT	PERCENT PRESENT
Cobalt Compound	~ 45 %

The percent reported is based on the theoretical composition of this Stain.
PHYSICAL DESCRIPTION/PROPERTIES: APPEARANCE: Dark blue powder.

ODOUR:	None. BOILING POINT: Not Applicable
MELTING POINT:	> 600oC
VAPOUR PRESSURE:	Not Applicable
SPECIFIC GRAVITY:	1.6 – 3.0
SOLUBILITY IN WATER:	Negligible
VISCOSITY:	No Data
pH:	Neutral

VOLATILE ORGANIC COMP: None

FIRE & EXPLOSION HAZARD

FLASH POINT:	N/A
FLAMMABLE LIMITES:	N/A
EXTINGUISHING MEDIA:	None

USUAL FIRE & EXPLOSION HAZARD: None

REACTIVITY DATA

STABILITY:	Stable
INCOMPATABILITY:	N/A

HAZARDOUS DECOMPOSITION PRODUCTS: Avoid fumes form firing
HAZARDOUS POLYMERISATION: Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the eyes and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion

of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.

PRECAUTIONS FOR SAFE HANDLING AND USE:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food, beverages and smoking materials should NOT be in the working area. Hygiene is very important; employees should wash thoroughly before eating, drinking or smoking.

REGULATORY INFORMATION:

MATERIAL SAFETY DATA SHEET CLASSIFICATION AND LABELLING (EEC)
Classification:
H
Label Information:
R-20 Harmful by inhalation.
R-22 Harmful if swallowed.
R-36/37/38 Irritating to eyes, respiratory system and skin.

S-7 Keep container tightly closed. S-22 Do not breathe dust.
S-24/25 Avoid contact with skin and eyes.
S-28 After contact with skin, wash immediately with plenty of water.
S-51 Use only in well ventilated areas.

OTHER INFORMATION: DISCLAIMER:
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END OF MATERIAL SAFETY DATA SHEET

CHINA CHANGSHA ZHONGLONG CHEMICAL(GROUP)CO.,LTD
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Tel No. : 0086-731-4453848,4423858 Fax No. :0086-731-4453877,8913326
Web: http://www.cszl.com.cn/. Email:claud_huang@hotmail.com or info@cszl.com.cn

MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: US041 PINK STAIN
CAS #: 68187-12-2
CHEMICAL NAME: C.I. Pigment Red 233, Chrome Tin Pink - Sphene
CHEMICAL FORMULA: CrSnSiCa

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components.

HAZARDOUS COMPONENTS
Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Chrome Oxide (Cr_2O_3) (CAS 1313-13-2)	0.5	0.5	0.5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Repeated prolonged exposure to trivalent compounds may cause delayed effects involving the respiratory system.
Eye Contact: Mechanical irritation to the eye may occur such as watering, reddening de to exposure to fines.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Tin Oxide (SnO) (CAS 1309-37-1)	2	2	2

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: No information found on acute overexposure. Chronic exposure to tin oxide fumes or dust may result in Stannosis, a form of Phenumoconiosis.
Eye Contact: May cause irritation.
Skin Contact: May cause mechanical skin irritation.
Ingestion: Expected to be non-toxic.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Silica, Crystalline (SiO_2) (CAS 14808-60-7)	0.1	10	0.05

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: a) Prolonged exposure to respirable crystalline silica (quartz) can cause Silicosis, a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Silicosis increases risk of Tuberculosis.
b) Inhaled from occupational sources is classified as carcinogenic to humans.
c) There is evidence that exposure to respirable crystalline silica or that the disease Silicosis is associated with increased incidence of Scleroderma, an
auto-immune disorder manifested by fibrosis (scarring) of the skin and internal organs.
d) There are several studies suggesting that exposure to respirable silica or that the disease Silicosis is associated with the increased incidence of kidney disorders. (Nephrotoxicity)
Eye Contact: May cause abrasions of the cornea.
Skin Contact: Not applicable.
Ingestion: Not applicable.

SARA III DATA
This product contains the following component(s) that require reporting under section 313 of the Emergency Section of the Emergency Planning and Community Right-To-Know Act, also knows as Title III of the SARA and 40 CFR Part 372.

COMPONENT	**PERCENT PRESENT**
Chrome Compound	~ 5 %

Tin Compound ~ 29 %
The percent reported is based on the theoretical composition of this Stain.
PHYSICAL DESCRIPTION/PROPERTIES: APPEARANCE: Pink powder.
ODOUR: one.
BOILING POINT: ot Applicable
MELTING POINT: 600Oc
VAPOUR PRESSURE: ot Applicable
SPECIFIC GRAVITY: .6 – 3.0
SOLUBILITY IN WATER: egligible
VISCOSITY: o Data
pH: Neutral
VOLATILE ORGANIC COMP: None

FIRE & EXPLOSION HAZARD

FLASH POINT: N/A FLAMMABLE LIMITES: N/A EXTINGUISHING MEDIA: None USUAL FIRE & EXPLOSION HAZARD: None

REACTIVITY DATA

STABILITY: Stable
INCOMPATABILITY: N/A
HAZARDOUS DECOMPOSITION PRODUCTS: Avoid fumes form firing
HAZARDOUS POLYMERISATION: Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the eyes and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.

PRECAUTIONS FOR SAFE HANDLING AND USE:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.
OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food, beverages and smoking materials should NOT be in
the working area. Hygiene is very important; employees should wash thoroughly before eating, drinking or smoking.

REGULATORY INFORMATION: CLASSIFICATION AND LABELLING (EEC)
Classification:
H
Label Information:
R-20 Harmful by inhalation.
R-22 Harmful if swallowed.
R-36/37/38 Irritating to eyes, respiratory system and skin.
S-7 Keep container tightly closed.
S-22 Do not breathe dust.
S-24/25 Avoid contact with skin and eyes.
S-28 After contact with skin, wash immediately with plenty of water.

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S-51 Use only in well ventilated areas.

OTHER INFORMATION: DISCLAIMER:
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product purchased is sold on the assumption the purchaser will conduct his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

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END OF MATERIAL SAFETY DATA SHEET

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Web: http://www.cszl.com.cn/. Email:claud_huang@hotmail.com or info@cszl.com.cn

MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: US041 PINK STAIN
CAS #: 68187-12-2
CHEMICAL NAME: C.I. Pigment Red 233, Chrome Tin Pink - Sphene
CHEMICAL FORMULA: CrSnSiCa

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components.

HAZARDOUS COMPONENTS
Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Chrome Oxide (Cr_2O_3) (CAS 1313-13-2)	0.5	0.5	0.5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Repeated prolonged exposure to trivalent compounds may cause delayed effects involving the respiratory system.
Eye Contact: Mechanical irritation to the eye may occur such as watering, reddening de to exposure to fines.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Tin Oxide (SnO) (CAS 1309-37-1)	2	2	2

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: No information found on acute overexposure. Chronic exposure to tin oxide fumes or dust may result in Stannosis, a form of Phenumoconiosis.
Eye Contact: May cause irritation.
Skin Contact: May cause mechanical skin irritation.
Ingestion: Expected to be non-toxic.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Silica, Crystalline (SiO_2) (CAS 14808-60-7)	0.1	10	0.05

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: a) Prolonged exposure to respirable crystalline silica (quartz) can cause Silicosis, a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Silicosis increases risk of Tuberculosis.
b) Inhaled from occupational sources is classified as carcinogenic to humans.
c) There is evidence that exposure to respirable crystalline silica or that the disease Silicosis is associated with increased incidence of Scleroderma, an
auto-immune disorder manifested by fibrosis (scarring) of the skin and internal organs.
d) There are several studies suggesting that exposure to respirable silica or that the disease Silicosis is associated with the increased incidence of kidney disorders. (Nephrotoxicity)
Eye Contact: May cause abrasions of the cornea.
Skin Contact: Not applicable.
Ingestion: Not applicable.

SARA III DATA
This product contains the following component(s) that require reporting under section 313 of the Emergency Section of the Emergency Planning and Community Right-To-Know Act, also knows as Title III of the SARA and 40 CFR Part 372.

COMPONENT	**PERCENT PRESENT**
Chrome Compound	~ 5 %

Tin Compound ~ 29 %
The percent reported is based on the theoretical composition of this Stain.
PHYSICAL DESCRIPTION/PROPERTIES: APPEARANCE: Pink powder.
ODOUR: one.
BOILING POINT: ot Applicable
MELTING POINT: 600Oc
VAPOUR PRESSURE: ot Applicable
SPECIFIC GRAVITY: .6 – 3.0
SOLUBILITY IN WATER: egligible
VISCOSITY: o Data
pH: Neutral
VOLATILE ORGANIC COMP: None

FIRE & EXPLOSION HAZARD

FLASH POINT: N/A FLAMMABLE LIMITES: N/A EXTINGUISHING MEDIA: None USUAL FIRE & EXPLOSION HAZARD: None

REACTIVITY DATA

STABILITY: Stable
INCOMPATABILITY: N/A
HAZARDOUS DECOMPOSITION PRODUCTS: Avoid fumes form firing
HAZARDOUS POLYMERISATION: Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the eyes and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.

PRECAUTIONS FOR SAFE HANDLING AND USE:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.
OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food, beverages and smoking materials should NOT be in
the working area. Hygiene is very important; employees should wash thoroughly before eating, drinking or smoking.

REGULATORY INFORMATION: CLASSIFICATION AND LABELLING (EEC)
Classification:
H
Label Information:
R-20 Harmful by inhalation.
R-22 Harmful if swallowed.
R-36/37/38 Irritating to eyes, respiratory system and skin.
S-7 Keep container tightly closed.
S-22 Do not breathe dust.
S-24/25 Avoid contact with skin and eyes.
S-28 After contact with skin, wash immediately with plenty of water.

Add: 13H, Jiefang West Road, Changsha,410000, Hunan Prov., China
Tel No. : 0086-731-4453848,4423858 Fax No. :0086-731-4453877,8913326
Web: http://www.cszl.com.cn/. Email:claud_huang@hotmail.com or info@cszl.com.cn

S-51 Use only in well ventilated areas.

OTHER INFORMATION: DISCLAIMER:
Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any
product purchased is sold on the assumption the purchaser will conduct his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

KEY/LEGEND:

NA = Not available or Not Applicable; ACGIH = American Conference of Governmental
Industrial Hygienists; TLV = Threshold Limit Value; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; CAL/OSHA = California Occupational Safety and Health Administration; CFR = Code of Federal Regulations; FED/OSHS = Federal Occupational Safety and Health Administration; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; PEL = Permissible Exposure Limits; TSCA – Toxic Substances Control Act; TWA = Time Weighted Average; US-EPA = US Environmental Protection Agency

END OF MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: CORAL PINK
CAS #: 68187-12-2
CHEMICAL NAME: C.I. Pigment Red 233, Chrome Tin Pink - Sphene
CHEMICAL FORMULA: CrSnSiCa

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components.

HAZARDOUS COMPONENTS
Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Chrome Oxide (Cr_2O_3) (CAS 1313-13-2)	0.5	0.5	0.5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Repeated prolonged exposure to trivalent compounds may cause delayed effects involving the respiratory system.
Eye Contact: Mechanical irritation to the eye may occur such as watering, reddening de to exposure to fines.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Tin Oxide (SnO) (CAS 1309-37-1)	2	2	2

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: No information found on acute overexposure. Chronic exposure to tin oxide fumes or dust may result in Stannosis, a form of Phenumoconiosis.
Eye Contact: May cause irritation.
Skin Contact: May cause mechanical skin irritation.
Ingestion: Expected to be non-toxic.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Silica, Crystalline (SiO_2) (CAS 14808-60-7)	0.1	10	0.05

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: a) Prolonged exposure to respirable crystalline silica (quartz) can cause Silicosis, a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Silicosis increases risk of Tuberculosis.
b) Inhaled from occupational sources is classified as carcinogenic to humans.
c) There is evidence that exposure to respirable crystalline silica or that the disease Silicosis is associated with increased incidence of Scleroderma, an auto-immune disorder manifested by fibrosis (scarring) of the skin and internal organs.
d) There are several studies suggesting that exposure to respirable silica or that the disease Silicosis is associated with the increased incidence of kidney disorders. (Nephrotoxicity)

Eye Contact: May cause abrasions of the cornea.
Skin Contact: Not applicable.
Ingestion: Not applicable.

SARA III DATA
This product contains the following component(s) that require reporting under section 313 of the Emergency Section of the Emergency Planning and Community Right-To-Know Act, also knows as Title III of the SARA and 40 CFR Part 372.

COMPONENT	**PERCENT PRESENT**
Chrome Compound	~ 5 %
Tin Compound	~ 29 %

The percent reported is based on the theoretical composition of this Stain.

PHYSICAL DESCRIPTION/PROPERTIES:

APPEARANCE: Pink powder.
ODOUR: None.
BOILING POINT: Not Applicable
MELTING POINT: > 600°C **VAPOUR**
PRESSURE: Not Applicable
SPECIFIC GRAVITY: 1.6 – 3.0
SOLUBILITY IN WATER: Negligible
VISCOSITY: No Data **pH:**
Neutral

VOLATILE ORGANIC COMP: None

FIRE & EXPLOSION HAZARD

FLASH POINT:	N/A
FLAMMABLE LIMITES:	N/A
EXTINGUISHING MEDIA:	None
USUAL FIRE & EXPLOSION HAZARD:	None

REACTIVITY DATA

STABILITY:	Stable
INCOMPATABILITY:	N/A
HAZARDOUS DECOMPOSITION PRODUCTS:	Avoid fumes form firing
HAZARDOUS POLYMERISATION:	Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the eyes and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.

PRECAUTIONS FOR SAFE HANDLING AND USE:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food, beverages and smoking materials should NOT be in the working area. Hygiene is very important; employees should wash thoroughly before eating, drinking or smoking.

REGULATORY INFORMATION: CLASSIFICATION

AND LABELLING (EEC)

Classification:
H
Label Information:
R-20 Harmful by inhalation.
R-22 Harmful if swallowed.
R-36/37/38 Irritating to eyes, respiratory system and skin.
S-7 Keep container tightly closed.
S-22 Do not breathe dust.
S-24/25 Avoid contact with skin and eyes.
S-28 After contact with skin, wash immediately with plenty of water.
S-51 Use only in well ventilated areas.

OTHER INFORMATION:

DISCLAIMER:

Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will conduct his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

KEY/LEGEND:

NA = Not available or Not Applicable; ACGIH = American Conference of Governmental Industrial Hygienists; TLV = Threshold Limit Value; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; CAL/OSHA = California Occupational Safety and Health Administration; CFR = Code of Federal Regulations; FED/OSHS = Federal Occupational Safety and Health Administration; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; PEL = Permissible Exposure Limits; TSCA – Toxic Substances Control Act; TWA = Time Weighted Average; US-EPA = US Environmental Protection Agency

END OF MATERIAL SAFETY DATA SHEET

CHINA CHANGSHA ZHONGLONG CHEMICAL(GROUP)CO.,LTD
Add: 13H, Jiefang West Road, Changsha,410000, Hunan Prov., China
Tel No. : 0086-731-4453848,4423858 Fax No. :0086-731-4453877,8913326
Web: http://www.cszl.com.cn/. Email:geoff_chen@hotmail.com

MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: BLACK STAIN
CAS #: 68186-97-0
CHEMICAL NAME: C.I. Pigment Black 27, Cobalt Chrome Iron Nickel Black - Spinel
CHEMICAL FORMULA: CrFeZnAl

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components.

HAZARDOUS COMPONENTS
Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Cobalt Oxide (Co3O4) (CAS 1396-06-1)	0.02	0.5	N/A

ACGIH: Animal carcinogen: Agent is carcinogenic in experimental animals at dose levels, by route (s) of administration at site, or histologic type, or by mechanism considered relevant to workers exposure. Available epidemiologist studies do not confirm an increased risk of cancer in humans except under common levels of exposure.

Symptoms of Overexposure:

Inhalation: Prolonged inhalation of dust or metal dust, and fume or mist containing cobalt may cause serious respiratory illness. May cause an irritation of respiratory organs of sensitive persons resulting in obstruction of airways with shortness of breath.
Eye Contact: May cause serious eye irritation.
Skin Contact: Prolonged exposure may produce irritation.
Ingestion: Large amounts may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhoea.

COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**

Chrome Oxide (Cr_2O_3) (CAS 1313-13-2)	0.5	0.5	0.5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Repeated prolonged exposure to trivalent compounds may cause delayed effects involving the respiratory system.
Eye Contact: Mechanical irritation to the eye may occur such as watering, reddening de to exposure to fines.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Iron Oxide (Fe_2O_3) (CAS 1309-37-1)	5	10	5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Repeated and prolonged exposure may cause beginnings Pneumoconiosis called Siderosis.
Eye Contact: May cause irritation.
Skin Contact: May cause mechanical skin irritation.
Ingestion: Expected to be non-toxic.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Nickel Oxide (NiO) (CAS 7440-02-0)	0.2 resp	1 resp	N/A

ACGIH: Inhalable fraction, the concentration of inhalable particulate for application of this TLV is to be determined from the fraction passing a size-selector with characteristics defined in (A1). (A1) – Confirmed human carcinogen: Agent is carcinogenic to humans based on epidemiologic studies of,or convincing clinical evidence, in exposed humans. (Ca) Carcinogen.

Symptoms of overexposure:

Inhalation: Evidence for the association of nickel compound exposures and cancer risk comes mainly from workers in now obsolete nickel refining operations. The studies of nickel workers suggest that respiratory cancer risks are primarily related to exposure to relatively insoluble forms of nickel notably sulphidic and oxidic nickel at concentrations greater than 10mg/m3. Toxic respiratory effects in animals may be caused by reduced particle clearance capacity. The International Agency for Research on Cancer (IARC) (ref. 4) in 1990 and the U.S. Tenth Report on Carcinogens (ref. 5) in 2002 concluded there was sufficient evidence that nickel compounds are carcinogenic to humans. The Report of the International Committee on Nickel Carcinogenesis in Man reported that workers who have been primarily exposed to nickel oxide showed some evidence of increased lung cancer.

Eye Contact: May cause irritation.

Skin Contact: Nickel oxide has caused tumours at the site of injection in rodents. Prolonged and intimate skin contact can cause an allergic skin rash in previously sensitized individuals.

Ingestion: The U.S. National Institute for Occupational Safety and Health (NIOSH) concluded there is no evidence that nickel and its inorganic compounds are carcinogenic when ingested. The U.S. Food and Drug Administration has affirmed that nickel is generally recognized as safe (GRAS) as a direct human food ingredient

SARA III DATA

This product contains the following component(s) that require reporting under section 313 of the Emergency Section of the Emergency Planning and Community Right-To-Know Act, also knows as Title III of the SARA and 40 CFR Part 372.

COMPONENT	PERCENT PRESENT
Cobalt Compound	~ 25 %
Chromium Compound	~ 35%
Nickel Compound	~ 9 %

The percent reported is based on the theoretical composition of this Stain.

PHYSICAL DESCRIPTION/PROPERTIES:

APPEARANCE:	Black powder.
ODOUR:	None.
BOILING POINT:	Not Applicable
MELTING POINT:	> 600oC
VAPOUR PRESSURE:	Not Applicable
SPECIFIC GRAVITY:	1.6 – 3.0
SOLUBILITY IN WATER:	Negligible
VISCOSITY:	No Data
pH:	Neutral

VOLATILE ORGANIC COMP: None

FIRE & EXPLOSION HAZARD

FLASH POINT: N/A
FLAMMABLE LIMITES: N/A
EXTINGUISHING MEDIA: None
USUAL FIRE & EXPLOSION HAZARD: None

REACTIVITY DATA

STABILITY: Stable
INCOMPATABILITY: N/A
HAZARDOUS DECOMPOSITION PRODUCTS: Avoid fumes form firing
HAZARDOUS POLYMERISATION: Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the eyes and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.

PRECAUTIONS FOR SAFE HANDLING AND USE:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.
CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food, beverages and smoking materials should NOT be in the working area. Hygiene is very important; employees should wash thoroughly before eating, drinking or smoking.

REGULATORY INFORMATION:

CLASSIFICATION AND LABELLING (EEC)

Classification:
H
Label Information:
R-20 Harmful by inhalation.
R-22 Harmful if swallowed.
R-36/37/38 Irritating to eyes, respiratory system and skin.
S-7 Keep container tightly closed.
S-22 Do not breathe dust.
S-24/25 Avoid contact with skin and eyes.
S-28 After contact with skin, wash immediately with plenty of water.
S-51 Use only in well ventilated areas.

OTHER INFORMATION: DISCLAIMER:
Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will conduct his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or

consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

KEY/LEGEND:

NA = Not available or Not Applicable; ACGIH = American Conference of Governmental Industrial Hygienists; TLV = Threshold Limit Value; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; CAL/OSHA = California Occupational Safety and Health Administration; CFR = Code of Federal Regulations; FED/OSHS = Federal Occupational Safety and Health Administration; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; PEL = Permissible Exposure Limits; TSCA – Toxic Substances Control Act; TWA = Time Weighted Average; US-EPA = US Environmental Protection Agency

END OF MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

Printing Date: JUN 20 2021

SECTION 1: IDENTIFICATION OF SUBSTANCE AND OF THE COMPANY：

ZHONGLONG MATERIALS LIMITED
Tel: 0086-731-84427228;84423858 Fax: 0086-731-84453877
www.zpigments.com Email:info@zpigments.com

Product name：COBALT CHROMITE GREEN SPINEL
Cobalt Chromite Green Spinel, an inorganic pigment, is a reaction product of high temperature calcination in which Cobalt (II) Oxide and Chromium (III) Oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of spinel.
Its composition may include any one or a combination of the modifiers Al2O3, B2O3, CaO, MgO, PbO, SiO2, TiO2, ZnO, or ZrO2

Product number	6266 PEACOCK
EC no.	269-101-7
CAS no.	68187-49-5
Index no.	C.I. 77344

SECTION 2: Hazard identification

Classification of the substance or mixture

GHS classification in accordance with OSHA (29 CFR 1910.1200)	Not a hazardous substance or mixture.
GHS label elements, including precautionary statements	Not a hazardous substance or mixture.
Other hazards which do not result in classification	Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

COBALT CHROMITE GREEN SPINEL PIGMENT GREEN 26 100%

EC no.	269-101-7
CAS no.	68187-49-5
Index no.	C.I. 77344
Formula	CoCr2O4

SECTION 4: First-aid measures

- Contact with skin: Wash with plenty of water and soap.
- Contact with eyes: Wash immediately with water for at least 10 minutes.
- Swallowing: Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet.
  A suspension of activated charcoal in water, or liquid paraffin may be administered.
- Inhalation: Ventilate the premises.
  The patient is to be removed immediately from the contaminated premises and

made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION

SECTION 5: Fire-fighting measures

•Recommended extinguishers:	Water, CO2, Foam, Chemical powders, according to the materials involved in the fire.
•Extinguishers not to be used:	None in particular.
•Risks arising from combustion:	Avoid inhaling the fumes.
•Protective equipment:	Use protection for the respiratory tract.

SECTION 6: Accidental release measures

•Measures for personal safety:	Use gloves and protective clothing. In the event of particulates aerosols use respiratory protection.
•Environmental measures: .	Keep away from drains, surface- and ground-water and soil
•Cleaning methods:	Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities. Remove the waste materials with a suitable device (for instance a suction pump) and dispose. After the product has been recovered, rinse the area and materials involved with water.

SECTION 7: Handling and storage

•Handling precautions:	Wear suitable gloves, glasses and face protection. Avoid contact and inhalation of the vapours/powders. Do not eat or drink while working.
•Incompatible materials:	None in particular.
•Storage conditions:	Always keep the containers tightly closed.
•Instructions as regards storage premises:	Adequately ventilated premises.

SECTION 8: Exposure controls / personal protection

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Chromium (III) Compounds (as Cr)	0.5 mg/m3	0.5 mg/m3	0.5 mg/m3
Cobalt, Metal, Dust & Fume (as Co)	0.02 mg/m3	0.5 mg/m3	N/A
Zinc oxide(as Zn) (Total Dust)	10 mg/m3	10 mg/m3(total) 5 mg/m3 (respirable)	5 mg/m3

•Precautionary measures:	Give adequate ventilation to the premises where the product is stored and/or handled.

•Respiratory protection:	Use suitable respiratory protection.
•Protection for hands:	Not needed for normal use.
•Eye protection:	Not needed for normal use.
•Protection for skin:	No special precaution must be adopted for normal use.

SECTION 9: Physical and chemical properties

Appearance/form	BLUE/ POWDER
Odor	None
SPECIFIC GRAVITY	4.96
pH	6.6
Melting point/freezing point	<1000 C
Initial boiling point and boiling range	NA
Flash point	NA
Evaporation rate	NA
Flammability (solid, gas)	none
Upper/lower flammability limits	NA
Upper/lower explosive limits	NA
Vapor pressure	NA
Vapor density	NA
Relative density	NA
Solubility(ies)	insoluble
Partition coefficient: n-octanol/water	NA
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity	NA
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

Chemical stability	STABLE
Possibility of hazardous reactions	WILL NOT OCCUR
Incompatible materials	NONE
Hazardous decomposition products	N/A

SECTION 11: Toxicological information

ORAL	LD50 (male rats) > 10000 mg/kg
INHALATION	LC50 (rats; 4 hours) > 5.05 mg/L air (actual concentration)
SKIN	N/A

NON IRRITATING TO THE SKIN
NON IRRITATING TO THE EYES

THIS PIGMENT IS NOT LISTED IN THE NATIONAL TOXICOLOGY PROGRAM (NTP) REPORT ON CARCINOGENS.
IT IS NOT LISTED AS A POTENTIAL CARCINOGEN IN THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER(IARC) MONOGRAPHS. IT IS NOT FOUND TO

BE A CARCINOGEN BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION(OSHA)

SECTION 12: Ecological information

ECOTOXICITY	NO DATA
DEGRADABILITY	NO DATA
MOBILITY	NO DATA
BIOACCUMULATIVE	NO DATA

SECTION 13: Disposal considerations

Disposal of the product	Contain spillage and scoop or vacuum. Avoid making dust put in appropriate container for disposal. Waste disposal method in accordance with Federal, State and Local Laws.
Disposal of contaminated packaging	Dispose of as unused product.
Waste treatment	MUST BE PROCESSED THROUGH IN-HOUSE TREATMENT
Sewage disposal	AVOID CITY DRAINS

SECTION 14: Transport information

14.1 UN Number	None
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

Attention all Retailers of Mason Stains

ALL retailers of this product are REQUIRED by law to supply their customers with a copy of material safety data sheet with initial purchase.

***SARA 313

This product contains certain oxides and compounds which are subject to reporting requirements of Superfund Amendment and Reauthorization Act (SARA) of 1986, Section 313 of the Emergency Planning and Community Right to Know Act and of 40 CRF, Part 372.
The information contained in this MSDS must be provided to every employee who is exposed to this product

in any way. We recommend the user reads and understands the contents herein before using this material. PLEASE KEEP ON FILE FOR FUTURE REFERENCE. DO NOT THROW AWAY! MSDS'S ARE REQUIRED FOR FIRST SHIPMENT, AND WILL BE SENT AGAIN WHEN REVISED UPON YOUR NEXT ORDER OF PRODUCT
OR BY REQUEST.

Disclamer

SECTION 16: REFERENCE INFORMATION

CPMA CLASSIFICATION AND CHEMICAL DESCRIPTIONS OF THE COMPLEX INORGANIC COLOR PIGMENTS Fourth Edition - January 2019 Update

END OF MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

CHEMICAL FAMILY: Inorganic
PRODUCT NAME: BROWN
CAS #: 68186-88-9
CHEMICAL NAME: C.I. Pigment Brown 33, Chromium Iron Zinc Alumina Brown - Spinel
CHEMICAL FORMULA: CrFeZnAl

This product is a blend of various metal oxides, salts and some other compounds which are interfused by high temperature calcination to form the insoluble finished product which typically does not exhibit the properties of the individual components..

HAZARDOUS COMPONENTS
Stain is a fused substance. The components of the final product listed below are from the inventory of potentially hazardous substances referenced by FED-OSHA in 29 CFR 1910.1200

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Chrome Oxide (Cr_2O_3) (CAS 1313-13-2)	0.5	0.5	0.5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Repeated prolonged exposure to trivalent compounds may cause delayed effects involving the respiratory system.
Eye Contact: Mechanical irritation to the eye may occur such as watering, reddening de to exposure to fines.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Iron Oxide (Fe_2O_3) (CAS 1309-37-1)	5	10	5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: Repeated and prolonged exposure may cause beginnings Pneumoconiosis called Siderosis.
Eye Contact: May cause irritation.
Skin Contact: May cause mechanical skin irritation.
Ingestion: Expected to be non-toxic.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Zinc Oxide (ZnO) (CAS 1314-13-2)	10	10/5 resp	5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: High levels of dust may result in tightness of chest, metallic taste, cough, dizziness, fever, chills, headache, nausea, and dry throat. Chronic exposure may produce symptoms known as metal fume fever or "zinc shakes", an acute, self-limiting condition without recognized complications. Symptoms of metal fume fever include: chills, fever, muscular pain, nausea and vomiting. May aggravate respiratory conditions.
Eye Contact: May cause irritation.
Skin Contact: May cause irritation.
Ingestion: May cause irritation to the gastro-intestinal tract.

	Exposure Limit (Air), mg/m^3		
COMPONENT	**ACGIH/TLV**	**FED-OSHA/PEL**	**CAL-OSHA/PEL**
Aluminum Oxide (Al_2O_3) (CAS 1344-28-1)	10	5	5

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

Symptoms of overexposure:

Inhalation: High levels of dust may result in irritation of the respiratory system May aggravate respiratory conditions.
Eye Contact: May cause irritation.
Skin Contact: May cause irritation.
Ingestion: May cause irritation to the gastro-intestinal tract.

SARA III DATA
This product contains the following component(s) that require reporting under section 313 of the Emergency Section of the Emergency Planning and Community Right-To-Know Act, also knows as Title III of the SARA and 40 CFR Part 372.

COMPONENT	**PERCENT PRESENT**
Zinc Compound	~ 35 %

The percent reported is based on the theoretical composition of this Stain.

PHYSICAL DESCRIPTION/PROPERTIES:

APPEARANCE:	Brown powder.
ODOUR:	None.
BOILING POINT:	Not Applicable
MELTING POINT:	> 600^{o}C
VAPOUR PRESSURE:	Not Applicable
SPECIFIC GRAVITY:	1.6 – 3.0
SOLUBILITY IN WATER:	Negligible
VISCOSITY:	No Data
pH:	Neutral
VOLATILE ORGANIC COMP:	None

FIRE & EXPLOSION HAZARD

FLASH POINT:	N/A
FLAMMABLE LIMITES:	N/A
EXTINGUISHING MEDIA:	None
USUAL FIRE & EXPLOSION HAZARD:	None

REACTIVITY DATA

STABILITY:	Stable
INCOMPATABILITY:	N/A
HAZARDOUS DECOMPOSITION PRODUCTS:	Avoid fumes form firing
HAZARDOUS POLYMERISATION:	Will not occur

HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and Ingestion

EFFECTS OF OVER EXPOSURE: Prolonged contact with stain dust can be very irritating to the eyes and/or skin. High dust levels can be irritating to the respiratory tract. Over exposure to dust may cause lung damage. With adequate ventilation, dust control and good personal hygiene, symptoms of over exposure should not occur. Ingestion of large amounts of stain may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in industrial health.

CARCINOGECITY: N/A

EMERGENCY & FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes, flush immediately with clean water and call a physician. If ingested, give large amounts of water to induce vomiting, only in conscious person.

SOURCES OF HEALTH HAZARD DATA: The MSDS was developed from information on the constituent substances of this stain material, not from test data on the stain itself.

PRECAUTIONS FOR SAFE HANDLING AND USE:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Uncontaminated material may be recovered and re-used. If contaminated, scoop, vacuum or wash into a receptacle or disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Protect containers against physical damage, store in a dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

CONTROL MEASURES

RESPIRATORY PROTECTION: Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust – Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment – work gloves recommended.

EYE PROTECTION: Use judgment – safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to coveralls, smock, aprons, gloves, shoes and hats.

WORK/HYGENIC PRACTICES: Food, beverages and smoking materials should NOT be in the working area. Hygiene is very important; employees should wash thoroughly before eating, drinking or smoking.

REGULATORY INFORMATION: CLASSIFICATION

AND LABELLING (EEC)

Classification:
H
Label Information:
R-20 Harmful by inhalation.
R-22 Harmful if swallowed.
R-36/37/38 Irritating to eyes, respiratory system and skin.
S-7 Keep container tightly closed.
S-22 Do not breathe dust.
S-24/25 Avoid contact with skin and eyes.
S-28 After contact with skin, wash immediately with plenty of water.
S-51 Use only in well ventilated areas.

OTHER INFORMATION:

DISCLAIMER:

Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will conduct his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

KEY/LEGEND:

NA = Not available or Not Applicable; ACGIH = American Conference of Governmental Industrial Hygienists; TLV = Threshold Limit Value; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; CAL/OSHA = California Occupational Safety and Health Administration; CFR = Code of Federal Regulations; FED/OSHS = Federal Occupational Safety and Health Administration; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; PEL = Permissible Exposure Limits; TSCA – Toxic Substances Control Act; TWA = Time Weighted Average; US-EPA = US Environmental Protection Agency

END OF MATERIAL SAFETY DATA SHEET