Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name	**Sodium Silicate 75tw**
Chemical name	SiO_2/Na_2O
Synonyms	Also known as; Grade M75, Silicate of Soda, Water Glass.
Supplier	Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate, Radstock, Nr. Bath. BA3 4XE
Emergency numbers	Tel: 01761 411077 Fax: 01761 414115 Internet: coshh@bathpotters.demon.co.uk

2. Composition

Component	CAS	EINECS	% of composition
Sodium Silicate	1344-09-8	N/A	97.5%

3. Health Hazard Identification

Inhalation	Strong alkaline liquid, inhalation is unlikely but if occurs will cause chemical burns. Inhalation of mists will cause irritation to the respiratory tract.
Ingestion	If ingestion occurs it will cause chemical burns in the mouth and throat, inability to swallow, and irritation of the gastro intestinal tract with nausea and vomiting. The damage will be greater with hot solutions.
Eyes	Severe irritant causing chemical burns with physical irritation and inflammation, which may cause corneal damage.
Skin	Will cause chemical burns with physical irritation such as reddening, inflammation and dryness.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Wash mouth out with water and give copious quantities of water or milk to drink. Do not induce vomiting, and obtain immediate medical attention.
Eyes	Speed is essential. The eye should be thoroughly irrigated for not less than 20 minutes with clean water. This prolonged irrigation is of extreme importance and must be done at once otherwise permanent damage will result. Seek medical attention immediately.
Skin	Remove contaminated clothing and wash affected areas with copious amounts of water until no soapy feeling remains. If symptoms develop seek medical attention.

5. Fire Fighting Measures

Extinguishing Media	Suitable for surrounding fire conditions The product is not explosive or combustible. 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	Wash down spills of liquor with copious quantities of water. Remove dry materials either by a vacuum cleaner fitted with an efficient particulate filter or by damping down and scooping in to a receptacle.
Protective equipment	Wear suitable gloves and eye/face protection and respiratory protective equipment required for dry or liquid spills.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Avoid contact with skin and eyes. Atmospheric levels of mist should be maintained at the lowest level reasonably practicable. Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition)
Storage	Should be stored in closed steel or other suitable vessels, which prevent free circulation of air over the surface of the silicate. Drums must be kept closed when not in use. If not exposed to the atmosphere obelisk solutions will keep indefinitely. They should not be packed in containers which may be attacked by or which absorb moisture from the solution. Contact with wood will cause discolouration. All grades absorb carbon dioxide on exposure to the atmosphere and the higher ratio grades also lose water resulting in the formulation of a gel, the solution first becoming cloudy and eventually turning solid. Dilute solutions may be frozen and at low temperatures ice crystals separate and rise to the surface. The solutions may be reconstituted by warming and agitating with no change in properties. The more viscous grades should be stored in a warm building before use to facilitate handling.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded, although Sodium Silicate is not listed. 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 prEN 140, 141, 143 or 149 should be worn. Protective PVC gloves and safety spectacles are recommended for handling. When using hot solutions, the use of a full-face shield is recommended.

9. Physical & Chemical properties

Appearance & Odour	Water white viscous solution
Flash point (ºC)	Not applicable
Flammability	Not flammable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	Varies from 1.35 to 1.7 depending on ratio
pH value	Not known
Boiling point (ºC)	101°C - 105°C depending on ratio. Freezing point = 0°C – 4°C

10. Stability & Reactivity

Chemical stability	The material is stable when storage conditions are adhered to.
Conditions/materials to avoid	Solutions will react with new surfaces of aluminium, zinc and their alloy to evolve hydrogen.
Hazardous decomposition products	Not applicable
Hazardous polymerisation products	None known

11. Toxicology Information

Acute toxicology	LD_{50} Oral	Not known
	LD_{50} Dermal	Not known
	LD_{50} Inhalation	Not known
Health effects	Severe irritant causing chemical burns with physical irritation and inflammation, which may cause corneal damage to the eyes. If ingestion occurs it will cause chemical burns in the mouth and throat, inability to swallow, and irritation of the gastro intestinal tract with nausea and vomiting. The damage will be greater with hot solutions.	

12. Ecological information

Ecotoxicity	This product is soluble in water.
Persistence	Decomposition is likely.

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 in an appropriate container.

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14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
ADR		A voluntary label can be used reading 'splashes can damage the eyes'.
Sea	IMO	Not classified
Air	ICAO	Not classified

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15. Regulatory information

EC Supply Labelling	Harmful X_n
R-Phrases	R41 Risk of serious eye damage. R38 Irritating to the skin.
S-Phrases	S2 Keep out of reach of children S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39 Wear suitable gloves and eye/face protection. Optional for dusty residue of dry product: S20/21 When using do not eat, drink or smoke. S38 In case of insufficient ventilation wear suitable respiratory equipment.
UK Occupational exposures limits*	Mg/m^3 8 hr TWA % in product
Unclassified	Treat as a hazardous dust

* 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.

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