

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

1.1. Product identifier

Code: **LRP--000042**
 Product name: **Lustro Rosso**
Prodotto metallo-organico per decorazione al terzo fuoco

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

Intended use: **third firing decoration in the glass/ceramics/porcelain sectors**

1.3. Details of the supplier of the safety data sheet

Name: **COLOROBBLIA S.P.A.**
 Full address: **via Pietramarina 53**
 District and Country: **50053 Sovigliana - Vinci (FI) Italia**
 Tel: **+39 0571 7091**
 Fax: **+39 0571 709.850**

e-mail address of the competent person responsible for the Safety Data Sheet: **ambientemsds@colorobbia.it**

1.4. Emergency telephone number

For urgent inquiries refer to:

- CAV - Ospedale Pediatrico Bambino Gesù - Roma - tel. +39 06 68593726**
- Az. Ospedaliera Università Foggia - Foggia - tel. 800183459**
- Az. Ospedaliera - A. Cardarelli- Napoli- tel. +39 081 7472870**
- CAV - Policlinico Umberto I- Roma - tel. +39 06 49978000**
- CAV - Policlinico A. Gemelli - Roma - tel. +39 06 3054343**
- Az. Ospedaliera Careggi - U.O. Tossicologia Medica - Firenze - tel. +39 055 7947819**
- CAV - Centro Nazionale di Informazione Tossicologica - Pavia - tel. +39 0382 24444**
- Ospedale Niguarda Ca' Granda - Milano - tel. +39 02 66101029**
- Az. ospedaliera Papa Giovanni XXIII - Bergamo - tel. 800883300**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Acute toxicity, category 4	H302	Harmful if swallowed.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 1	H410	Very toxic to aquatic life with long lasting effects.

SECTION 2. Hazards identification ... / >>

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Danger

Hazard statements:

- H226** Flammable liquid and vapour.
- H302** Harmful if swallowed.
- H304** May be fatal if swallowed and enters airways.
- H373** May cause damage to organs through prolonged or repeated exposure.
- H319** Causes serious eye irritation.
- H315** Causes skin irritation.
- H335** May cause respiratory irritation.
- H317** May cause an allergic skin reaction.
- H410** Very toxic to aquatic life with long lasting effects.
- EUH208** Contains: SOLVENT RED 1
 terpinolen
 L - alpha - pinen
 DIPENTENE
 Malaleuca alternifolia extract
 (-)-Pin-2(10)-Ene
 Anethole
 Alpha-Pinene
 May produce an allergic reaction.

Precautionary statements:

- P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P331** Do NOT induce vomiting.
- P280** Wear protective gloves/ protective clothing / eye protection / face protection.
- P301+P310** IF SWALLOWED: immediately call a POISON CENTER / doctor / . . .
- P370+P378** In case of fire: use . . . to extinguish.
- P273** Avoid release to the environment.

Contains: TURPENTINE
 Hydrocarbons, C9-C12 n-alkanes, ISOALCANI, CYCLIC, AROMATIC (2-25%)
 Synthetic Camphor
 Eucalyptus Oil
 Eugenol
 (R)-P-MENTHA-1,8-DIENE
 Eucaliptus globulus oil
 Eucaliptol
 Linalool

2.3. Other hazards

vPvB substances contained:
 Camphene

PBT substances contained:
 Camphene

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
Synthetic Camphor		
CAS 76-22-2	20 ≤ x < 25	Flam. Sol. 1 H228, Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335
EC 200-945-0		
INDEX		
TURPENTINE		
CAS 8006-64-2	10 ≤ x < 25	Flam. Liq. 3 H226, Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC 232-350-7		
INDEX 650-002-00-6		
Reg. no. 01-2119553060-53		
Au Resinate		
CAS	1 ≤ x < 5	Flam. Sol. 1 H228
EC 945-694-4		
INDEX		
Eucaliptus globulus oil		
CAS 84625-32-1	2,5 ≤ x < 5	Flam. Liq. 3 H226, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC 283-406-2		
INDEX		
Reg. no. 2119978250-37-0000		
Hydrocarbons, C9-C12 n-alkanes, ISOALCANI, CYCLIC, AROMATIC (2-25%)		
CAS 64742-82-1	2,5 ≤ x < 5	Flam. Liq. 3 H226, STOT RE 1 H372, Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066, Classification note according to Annex VI to the CLP Regulation: P
EC 919-446-0		
INDEX		
Reg. no. 01-2119458049-33		
Eucalyptus Oil		
CAS 8000-48-4	2,5 ≤ x < 5	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC		
INDEX		
Eucaliptol		
CAS 470-82-6	1 ≤ x < 5	Flam. Liq. 3 H226, Skin Sens. 1 H317
EC 207-431-5		
INDEX		
Reg. no. 01-2119967772-24-0000		
(R)-P-MENTHA-1,8-DIENE		
CAS 5989-27-5	1 ≤ x < 2,5	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1, Classification note according to Annex VI to the CLP Regulation: C
EC 227-813-5		
INDEX 601-029-00-7		
Reg. no. 01-2119529223-47-000		
Linalool		
CAS 78-70-6	1 ≤ x < 5	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1B H317
EC 201-134-4		
INDEX		
Reg. no. 01-2119474016-42-0000		
Ag Resinate		
CAS 68551-38-2	1 ≤ x < 5	Flam. Sol. 1 H228
EC 271-373-7		
INDEX		
Decahydronaphthalene		
CAS 91-17-8	1 ≤ x < 2,5	Flam. Liq. 3 H226, Acute Tox. 3 H331, Asp. Tox. 1 H304, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Chronic 1 H410 M=10
EC 202-046-9		
INDEX		
Reg. no. 01-2119565127-37-XXXX		

SECTION 3. Composition/information on ingredients ... / >>

Eugenol			
CAS	97-53-0	$1 \leq x < 5$	Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Sens. 1 H317
EC			
INDEX			
Alpha-Pinene			
CAS	80-56-8	$0,5 \leq x < 1$	Flam. Liq. 3 H226, Acute Tox. 4 H302, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC	201-291-8		
INDEX			
Reg. no.	01-2119519223-49-0000		
Anethole			
CAS	104-46-1	$0,5 \leq x < 1$	Skin Sens. 1 H317
EC	2032055		
INDEX			
Camphene			
CAS	79-92-5	$0,5 \leq x < 1$	Flam. Sol. 1 H228, Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC	201-234-8		
INDEX			
Reg. no.	01-2119446293-40-XXXX		
(-)-Pin-2(10)-Ene			
CAS	127-91-3	$0 \leq x < 0,5$	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1 H317
EC	242-060-2		
INDEX			
Malaleuca alternifolia extract			
CAS	85085-48-9	$0,25 \leq x < 0,5$	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Sens. 1B H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC			
INDEX			
4-METHYLPENTAN-2-ONE			
CAS	108-10-1	$0 \leq x < 0,5$	Flam. Liq. 2 H225, Acute Tox. 4 H332, Eye Irrit. 2 H319, STOT SE 3 H335, EUH066
EC	203-550-1		
INDEX	606-004-00-4		
Reg. no.	01-2119473980-30		
ETHYL ACETATE			
CAS	141-78-6	$0 \leq x < 0,5$	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC	205-500-4		
INDEX	607-022-00-5		
Reg. no.	01-2119475103-46		
DIPENTENE			
CAS	138-86-3	$0 \leq x < 0,25$	Flam. Liq. 3 H226, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1, Classification note according to Annex VI to the CLP Regulation: C
EC	205-341-0		
INDEX	601-029-00-7		
L - alpha - pinen			
CAS	7785-26-4	$0 \leq x < 0,25$	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Sens. 1B H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC	232-077-3		
INDEX			
terpinolen			
CAS	586-62-9	$0 \leq x < 0,25$	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Sens. 1B H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC	209-578-0		
INDEX			
Reg. no.	01-2119982325-32-XXXX		
SOLVENT RED 1			
CAS	1229-55-6	$0 \leq x < 0,5$	Carc. 2 H351, Muta. 2 H341, Skin Sens. 1 H317, Aquatic Chronic 4 H413
EC	214-968-9		
INDEX			

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SECTION 4. First aid measures ... / >>

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again. INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

in the event of an accident or if you feel unwell, contact a beggar or a poison center

SECTION 5. Firefighting measures**5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture**HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

Do not breathe combustion products (carbon oxide, toxic pyrolysis products, etc).

The product is combustible and, when the powder is released into the air in sufficient concentrations and in the presence of a source of ignition, it can create explosive mixtures with air. Fires may start or get worse by leakage of the solid product from the container, when it reaches high temperatures or through contact with sources of ignition.

5.3. Advice for firefighters**GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Hardhat with visor, fireproof clothing (fireproof jacket and trousers with ties around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), a depressurised mask with facemask covering the whole of the operator's face or a self-respirator (self-protector) in the event of large quantities of fume.

SECTION 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

BGR	България	МИНИСТЕРСТВО НА ТРУДА И СОЦИАЛНАТА ПОЛИТИКА МИНИСТЕРСТВО НА ЗДРАВЕОПАЗВАНЕТО НАРЕДБА No 13 от 30 декември 2003 г (4 Септември 2018г)
CZE	Česká Republika	Nařízení vlády č. 246/2018 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	TRGS 900 - Seite 1 von 69 (Fassung 29.03.2019)- Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GRC	Ελλάδα	ΕΦΗΜΕΡΙΔΑ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 152 - 21 Αυγούστου 2018
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Regeling van de Staatssecretaris van Sociale Zaken en Werkgelegenheid van 13 juli 2018, 2018-0000118517 tot wijziging van de Arbeidsomstandighedenregeling in verband met de implementatie van Richtlijn 2017/164 in Bijlage XIII
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018
POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r
ROU	România	HOTĂRÂRE nr. 584 din 2 august 2018 pentru modificarea Hotărârii Guvernului nr. 1.218/2006 privind stabilirea cerințelor minime de securitate și sănătate în muncă pentru asigurarea protecției lucrătorilor împotriva riscurilor legate de prezența agenților chimici
SVN	Slovenija	Uradni list Republike Slovenije 20.12.2019 - Uradnem listu RS št. 78/19 -PRAVILNIK o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu
TUR	Türkiye	23.06.2017 tarihli, 30105 sayılı, KKDİK Ek II Yönetmelik hükümlerine uygun düzenlenmiştir
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition, published 2018)
EU	OEL EU	Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2019

Synthetic Camphor

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		13	2	19	3	

SECTION 8. Exposure controls/personal protection ... / >>

TURPENTINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	300				
TLV	CZE	300		800		
VLA	ESP	113	20			
VLEP	FRA	560	100			
TLV	GRC	560	100	840	150	
TGG	NLD	560				
NDS/NDSch	POL	112		300		
TLV	ROU	400		500		SKIN
MV	SVN	560	100	560	100	SKIN
WEL	GBR	566	100	850	150	
TLV-ACGIH		111	20			

Hydrocarbons, C9-C12 n-alkanes, ISOALCANI, CYCLIC, AROMATIC (2-25%)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH			100			

(R)-P-MENTHA-1,8-DIENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	28	5	112	20	SKIN
MAK	DEU	28	5	112	20	SKIN
VLA	ESP	168	30			SKIN
MV	SVN	28	5	112	20	SKIN

Decahydronaphthalene

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH			100			

4-METHYLPENTAN-2-ONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	50		200		
TLV	CZE	80	19,2	200	48	SKIN
AGW	DEU	83	20	166	40	SKIN
MAK	DEU	83	20	166	40	SKIN
VLA	ESP	83	20	208	50	
VLEP	FRA	83	20	208	50	
TLV	GRC	410	100	410	100	
VLEP	ITA	83	20	208	50	
TGG	NLD	104		208		
VLE	PRT	83	20	208	50	
NDS/NDSch	POL	83		200		
TLV	ROU	83	20	208	50	
MV	SVN	83	20	208	50	SKIN
ESD	TUR	83	20	208	50	
WEL	GBR	208	50	416	100	SKIN
OEL	EU	83	20	208	50	
TLV-ACGIH		82	20	307	75	

SECTION 8. Exposure controls/personal protection ... / >>

ETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	734	200	1468	400	
TLV	CZE	700	191,1	900	245,7	
AGW	DEU	730	200	1460	400	
MAK	DEU	750	200	1500	400	
VLA	ESP	734	200	1468	400	
VLEP	FRA	734	200	1468	400	
TLV	GRC	734	200	1468	400	
TGG	NLD	734		1468		
VLE	PRT	734	200	1468	400	
NDS/NDSch	POL	734		1468		
TLV	ROU	400	111	500	139	
MV	SVN	734	200	1468	400	
WEL	GBR	734	200	1468	400	
OEL	EU	734	200	1468	400	
TLV-ACGIH		1441	400			

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,26	mg/l
Normal value in marine water	0,026	mg/l
Normal value for fresh water sediment	1,25	mg/kg
Normal value for marine water sediment	0,125	mg/kg
Normal value of STP microorganisms	650	mg/l
Normal value for the food chain (secondary poisoning)	0,2	g/Kg
Normal value for the terrestrial compartment	0,24	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	4,5 mg/kg				
Inhalation	734 mg/m3	734 mg/m3	VND	367 mg/m3	1468 mg/m3	1468 mg/m3	734 mg/m3	734 mg/m3
Skin			VND	37 mg/kg			VND	63 mg/kg

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
 VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are

SECTION 8. Exposure controls/personal protection ... />>

required. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
 If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
 Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	Not available	
Odour	characteristic	
Odour threshold	Not available	
pH	Not available	
Melting point / freezing point	Not available	
Initial boiling point	Not available	
Boiling range	Not available	
Flash point	39 T ≤ 43 °C	
Evaporation Rate	Not available	
Flammability of solids and gases	Not available	
Lower inflammability limit	Not applicable	
Upper inflammability limit	Not applicable	
Lower explosive limit	Not applicable	
Upper explosive limit	Not applicable	
Vapour pressure	Not available	
Vapour density	Not available	
Relative density	Not available	
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	Not available	
Auto-ignition temperature	Not applicable	
Decomposition temperature	Not available	
Viscosity	Not available	
Explosive properties	Not available	
Oxidising properties	Not available	

9.2. Other information

VOC (Directive 2010/75/EC) : 22,66 %

SECTION 10. Stability and reactivity

10.1. Reactivity

The product may react exothermically on contact with strong oxidising or reducing agents, strong acids or bases.

TURPENTINE

Dissolves rubber.

Hydrocarbons, C9-C12 n-alkanes, ISOALCANI, CYCLIC, AROMATIC (2-25%)

Stable in normal conditions of use and storage.

4-METHYLPENTAN-2-ONE

Reacts violently with: light metals. Attacks various types of plastic materials.

ETHYL ACETATE

Decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

10.2. Chemical stability

Excessively high temperatures can cause thermal decomposition.

10.3. Possibility of hazardous reactions

SECTION 10. Stability and reactivity ... / >>

See paragraph 10.1.

TURPENTINE

Reacts violently with: strong oxidising agents, chlorine. On contact with: tin chloride. Fire hazard. Dissolves rubber. Develops heat on contact with: calcium hypochlorite, chromium trioxide, chromium oxychloride, tin (IV) chloride. Risk of explosion on contact with: nitric acid, fluorine.

In oxygen atmospheres it generates explosive peroxides.

Hydrocarbons, C9-C12 n-alkanes, ISOALCANI, CYCLIC, AROMATIC (2-25%)

Avoid contact with: strong oxidising agents.

May form explosive mixtures with: strong oxidising agents, chlorates, perchlorates, liquid oxygen.

Fire hazard.

4-METHYLPENTAN-2-ONE

May react violently with: oxidising agents. Forms peroxides with: air. Forms explosive mixtures with: hot air.

ETHYL ACETATE

Risk of explosion on contact with: alkaline metals, hydrides, oleum. May react violently with: fluorine, strong oxidising agents, chlorosulphuric acid, potassium tert-butoxide. Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating.

4-METHYLPENTAN-2-ONE

Avoid exposure to: sources of heat.

ETHYL ACETATE

Avoid exposure to: light, sources of heat, naked flames.

10.5. Incompatible materials

Oxidising or reducing agents. Strong acids or bases.

Hydrocarbons, C9-C12 n-alkanes, ISOALCANI, CYCLIC, AROMATIC (2-25%)

Incompatible with: acids, bases, strong oxidants, nitrates, chlorosulphuric acid, aluminium. Incompatible materials: plastic materials.

4-METHYLPENTAN-2-ONE

Incompatible with: oxidising substances, reducing substances.

ETHYL ACETATE

Incompatible with: acids, bases, strong oxidants, aluminium, nitrates, chlorosulphuric acid. Incompatible materials: plastic materials.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

TURPENTINE

May develop: acyclic terpenes, monocyclic terpenes, hydroterpenes, pyrones, cymenes.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Eugenol

Informazioni riferite all'eugenolo:

LD50 orale ratto 2650 mg/Kg

LD50 dermale coniglio 5000 mg/Kg.

Eugenol

Informazioni riferite all'eugenolo:

LD50 orale ratto 2650 mg/Kg

LD50 dermale coniglio 5000 mg/Kg.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

SECTION 11. Toxicological information ... / >>

Hydrocarbons, C9-C12 n-alkanes, ISOALCANI, CYCLIC, AROMATIC (2-25%)
 NOAEL: 300 mg/Kg (chronic, oral, male animal, 2 years); LOAEC (inhalation, vapour, 90 dyes): 345 ppm; NOAEC(inhalation, rat, vapour): 300 mg/m³; NOAEL (oral, rat, 90 dyes): >= 495 mg/Kg; NOAEC (inhalation, rat, vapour, 90 dyes): 690 ppm; NOAEL (subacute, oral, female animal, 28 dyes): 1056 mg/Kg.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture: > 20 mg/l
 ATE (Oral) of the mixture: 909,09 mg/kg
 ATE (Dermal) of the mixture: >2000 mg/kg

TURPENTINE
 LD50 (Oral) 5760 mg/kg Rat

4-METHYLPENTAN-2-ONE
 LD50 (Oral) 2080 mg/kg Rat
 LD50 (Dermal) > 16000 mg/kg Rabbit
 LC50 (Inhalation) > 8,2 mg/l/4h Rat

Hydrocarbons, C9-C12 n-alkanes, ISOALCANI, CYCLIC, AROMATIC (2-25%)
 LD50 (Oral) > 15000 mg/kg Rat
 LD50 (Dermal) > 4 ml/Kg Rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
 May produce an allergic reaction.

Contains:

- SOLVENT RED 1
- terpinolen
- L - alpha - pinen
- DIPENTENE
- Malaleuca alternifolia extract
- (-)-Pin-2(10)-Ene
- Anethole
- Alpha-Pinene

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

May cause respiratory irritation

STOT - REPEATED EXPOSURE

May cause damage to organs

SECTION 11. Toxicological information ... / >>

ASPIRATION HAZARD

Toxic for aspiration

SECTION 12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

(R)-P-MENTHA-1,8-DIENE
 LC50 - for Fish 35 mg/l/96h Oncorhynchus mykiss
 EC50 - for Crustacea 69,6 mg/l/48h Daphnia pulex

DIPENTENE
 LC50 - for Fish 80 mg/l/96h Oncorhynchus mykiss
 EC50 - for Crustacea 17 mg/l/48h Daphnia magna

12.2. Persistence and degradability

Petroleum distillates, charcoal, vegetable extracts: they are mixtures of paraffinic, naphthenic, diterpenic and aromatic hydrocarbons. Their behaviour on the environment depends on the concentration. In each case use, according to good working practices, avoiding disposal in the environment. As a rule, the product is poorly biodegradable.

TURPENTINE

Oil distillates, coal, plant extracts: they are blends of parafin hydrocarbons, naphthenes, diterpenes and aromatics. Their behaviour in the environment depends on their composition. In any case they should be used according to good working practice, avoiding discharge into the environment.

TURPENTINE
 Solubility in water 0,1 - 100 mg/l
 Rapidly degradable

(R)-P-MENTHA-1,8-DIENE
 Solubility in water 0,1 - 100 mg/l
 Rapidly degradable

DIPENTENE
 NOT rapidly degradable

4-METHYLPENTAN-2-ONE
 Solubility in water > 10000 mg/l
 Rapidly degradable

ETHYL ACETATE
 Solubility in water > 10000 mg/l
 Rapidly degradable

12.3. Bioaccumulative potential

(R)-P-MENTHA-1,8-DIENE
 Partition coefficient: n-octanol/water 4,38
 BCF 1022

DIPENTENE
 Partition coefficient: n-octanol/water 4,5

4-METHYLPENTAN-2-ONE
 Partition coefficient: n-octanol/water 1,9

ETHYL ACETATE
 Partition coefficient: n-octanol/water 0,68
 BCF 30

SECTION 12. Ecological information ... / >>

12.4. Mobility in soil

4-METHYLPENTAN-2-ONE
 Partition coefficient: soil/water 2,008

12.5. Results of PBT and vPvB assessment

vPvB substances contained:
 Camphene

PBT substances contained:
 Camphene

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 1263

14.2. UN proper shipping name

ADR / RID: PAINT or PAINT RELATED MATERIAL
 IMDG: PAINT or PAINT RELATED MATERIAL (TURPENTINE)
 IATA: PAINT or PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3



IMDG: Class: 3 Label: 3



IATA: Class: 3 Label: 3



14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous



IMDG: Marine Pollutant



IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Pass.:	Maximum quantity: 60 L	Packaging instructions: 355
	Special Instructions:	A3, A72, A192	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: P5c-E1

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product	
Point	3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

Hydrocarbons, C9-C12 n-alkanes, ISOALCANI, CYCLIC, AROMATIC (2-25%)

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Flam. Sol. 1	Flammable solid, category 1
Carc. 2	Carcinogenicity, category 2

SECTION 16. Other information ... / >>

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H351	Suspected of causing cancer.
H341	Suspected of causing genetic defects.
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds

SECTION 16. Other information ... / >>

- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

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- The Merck Index. - 10th Edition
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- IFA GESTIS website
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Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

03.