

# 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--000041**  
 Product name: **Lustrò Rame**  
**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 ITALIA 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:
  - L - alpha - pinen
  - terpinolen
  - Eugenol
  - Malaleuca alternifolia extract
  - (-)-Pin-2(10)-Ene
  - DIPENTENE
 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%)  
 Anethole  
 Eucalyptus Oil  
 Alpha-Pinene  
 (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**

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

**3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>Synthetic Camphor</b>		
CAS	76-22-2     10 ≤ x < 20	<b>Flam. Sol. 1 H228, Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335</b>
EC	200-945-0	
INDEX		
<b>TURPENTINE</b>		
CAS	8006-64-2     10 ≤ x < 25	<b>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</b>
EC	232-350-7	
INDEX	650-002-00-6	
Reg. no.	01-2119553060-53	
<b>Eucalyptus Oil</b>		
CAS	8000-48-4     5 ≤ x < 9	<b>Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Sens. 1 H317, Aquatic Chronic 2 H411</b>
EC		
INDEX		
<b>Eucalyptus globulus oil</b>		
CAS	84625-32-1     2,5 ≤ x < 5	<b>Flam. Liq. 3 H226, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411</b>
EC	283-406-2	
INDEX		
Reg. no.	2119978250-37-0000	
<b>Linalool</b>		
CAS	78-70-6     1 ≤ x < 5	<b>Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1B H317</b>
EC	201-134-4	
INDEX		
Reg. no.	01-2119474016-42-0000	
<b>Eucaliptol</b>		
CAS	470-82-6     1 ≤ x < 5	<b>Flam. Liq. 3 H226, Skin Sens. 1 H317</b>
EC	207-431-5	
INDEX		
Reg. no.	01-2119967772-24-0000	
<b>Decahydronaphthalene</b>		
CAS	91-17-8     1 ≤ x < 2,5	<b>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</b>
EC	202-046-9	
INDEX		
Reg. no.	01-2119565127-37-XXXX	
<b>(R)-P-MENTHA-1,8-DIENE</b>		
CAS	5989-27-5     1 ≤ x < 2,5	<b>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</b>
EC	227-813-5	
INDEX	601-029-00-7	
Reg. no.	01-2119529223-47-000	
<b>Hydrocarbons, C9-C12 n-alkanes, ISOALCANI, CYCLIC, AROMATIC (2-25%)</b>		
CAS	64742-82-1     1 ≤ x < 2,5	<b>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</b>
EC	919-446-0	
INDEX		
Reg. no.	01-2119458049-33	
<b>Anethole</b>		
CAS	104-46-1     1 ≤ x < 5	<b>Skin Sens. 1 H317</b>
EC	2032055	
INDEX		
<b>CYCLOHEXANOL</b>		
CAS	108-93-0     1 ≤ x < 5	<b>Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Irrit. 2 H315, STOT SE 3 H335</b>
EC	203-630-6	
INDEX	603-009-00-3	
Reg. no.	01-2119447488-26-XXXX	

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

**BENZYL ALCOHOL**

CAS 100-51-6 1 ≤ x < 5 Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319  
 EC 202-859-9  
 INDEX 603-057-00-5  
 Reg. no. 01-2119492630-38-0000

**Alpha-Pinene**

CAS 80-56-8 1 ≤ x < 5 Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1 H317  
 EC 201-291-8  
 INDEX  
 Reg. no. 01-2119519223-49-0000

**4-METHYLPENTAN-2-ONE**

CAS 108-10-1 0,5 ≤ x < 1 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

**Camphene**

CAS 79-92-5 0,5 ≤ 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

**DIPENTENE**

CAS 138-86-3 0,5 ≤ x < 1 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

**(-)-Pin-2(10)-Ene**

CAS 127-91-3 0,5 ≤ x < 1 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 ≤ 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

**Eugenol**

CAS 97-53-0 0 ≤ x < 0,5 Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Sens. 1 H317  
 EC  
 INDEX

**terpinolen**

CAS 586-62-9 0,25 ≤ 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 209-578-0  
 INDEX

Reg. no. 01-2119982325-32-XXXX

**L - alpha - pinen**

CAS 7785-26-4 0 ≤ 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

**ETHYL ACETATE**

CAS 141-78-6 0 ≤ 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

**CYCLOHEXANONE**

CAS 108-94-1 0 ≤ x < 0,5 Flam. Liq. 3 H226, Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Dam. 1 H318, Skin Irrit. 2 H315

EC 203-631-1  
 INDEX 606-010-00-7  
 Reg. no. 01-2119453616-35

**TOLUENE**

CAS 108-88-3 0 ≤ x < 0,5 Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336

EC 203-625-9  
 INDEX 601-021-00-3

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.

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

**SECTION 6. Accidental release measures ... / >>**

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. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. 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. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

**7.2. Conditions for safe storage, including any incompatibilities**

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a 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 (Fassung 07.06.2018) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2008 NIPO: 211-08-011-5
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition, published 2018)
GRC	Ελλάδα	ΕΦΗΜΕΡΙΔΑ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 152 - 21 Αυγούστου 2018
ITA	Italia	DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017
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
POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r
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
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 04.06.2015 (1602) - Pravilnik o spremembah in dopolnitvah Pravilnika o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu
TUR	Türkiye	KİMYASAL MADDELERLE ÇALIŞMALARDA SAĞLIK VE GÜVENLİK ÖNLEMLERİ HAKKINDA YÖNETMELİK - Resmi Gazete Tarihi: 12.08.2013 Resmi Gazete Sayısı: 28733
EU	OEL EU	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 91/322/EEC.
	TLV-ACGIH	ACGIH 2019

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

**Synthetic Camphor**

**Threshold Limit Value**

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

**TURPENTINE**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	300				
TLV	CZE	300	54	800	144	
VLA	ESP	113	20			
VLEP	FRA	560	100			
WEL	GBR	566	100	850	150	
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
TLV-ACGIH		111	20			

**Decahydronaphthalene**

**Threshold Limit Value**

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

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

**Threshold Limit Value**

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

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

**Threshold Limit Value**

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

**BENZYL ALCOHOL**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	5				
TLV	CZE	40	9,04	80	18,08	
AGW	DEU	22	5	44	10	SKIN
NDS/NDSch	POL	240				11

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

**CYCLOHEXANOL**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	200				
TLV	CZE	200	48,8	400	97,6	SKIN
VLA	ESP	208	50			SKIN
VLEP	FRA	200	50	300	75	
WEL	GBR	208	50			
TLV	GRC	200	50			
TGG	NLD		1			
NDS/NDSch	POL	10				SKIN
TLV	ROU	100	25	200	50	SKIN
MV	SVN	210	50	840	200	SKIN
TLV-ACGIH		205	50			SKIN

**4-METHYLPENTAN-2-ONE**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	50		200		
TLV	CZE	80	19,52	200	48,8	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	
WEL	GBR	208	50	416	100	SKIN
TLV	GRC	410	100	410	100	
VLEP	ITA	83	20	208	50	
TGG	NLD	104		208		
NDS/NDSch	POL	83		200		
VLE	PRT	83	20	208	50	
MV	SVN	83	20	207,5	50	
ESD	TUR	83	20	208	50	
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	
		mg/m3	ppm	mg/m3	ppm
TLV	BGR	734	200	1468	400
TLV	CZE	700	194,6	900	250,2
AGW	DEU	730	200	1460	400
MAK	DEU	750	200	1500	400
VLA	ESP	734	200	1468	400
VLEP	FRA	1400	400		
WEL	GBR	734	200	1468	400
TLV	GRC	734	200	1468	400
VLEP	ITA	734	200	1468	400
TGG	NLD	734		1468	
NDS/NDSch	POL	734		1468	
VLE	PRT	734	200	1468	400
TLV	ROU	400	111	500	139
MV	SVN	1400	400	1400	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

**TOLUENE**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	192	50	384	100	SKIN
TLV	CZE	200	53,2	500	133	SKIN
AGW	DEU	190	50	760	200	SKIN
MAK	DEU	190	50	760	200	SKIN
VLA	ESP	192	50	384	100	SKIN
VLEP	FRA	76,8	20	384	100	SKIN
WEL	GBR	191	50	384	100	SKIN
TLV	GRC	192	50	384	100	
VLEP	ITA	192	50			SKIN
TGG	NLD	150		384		
NDS/NDSch	POL	100		200		SKIN
VLE	PRT	192	50	384	100	SKIN
TLV	ROU	192	50	384	100	SKIN
MV	SVN	192	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH		75,4	20			

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

**CYCLOHEXANONE**

Threshold Limit Value						
Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	40,8	10	81,6	20	SKIN
TLV	CZE	40	9,96	80	19,92	SKIN
AGW	DEU	80	20	80	20	SKIN
VLA	ESP	41	10	82	20	SKIN
VLEP	FRA	40,8	10	81,6	20	
WEL	GBR	41	10	82	20	SKIN
TLV	GRC	200	50	400	100	
VLEP	ITA	40,8	10	81,6	20	SKIN
TGG	NLD			50		SKIN
NDS/NDSch	POL	40		80		SKIN
VLE	PRT	40,8	10	81,6	20	SKIN
TLV	ROU	40,8	10	81,6	20	SKIN
MV	SVN	40,8	10	81,6	20	SKIN
ESD	TUR	40,8	10	81,6	20	SKIN
OEL	EU	40,8	10	81,6	20	SKIN
TLV-ACGIH		80	20	201	50	SKIN

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 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
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**SECTION 9. Physical and chemical properties ... / >>**

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 ≤ 45 °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) : 12,52 %

**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.

**BENZYL ALCOHOL**

Decomposes at temperatures above 870°C/1598°F. Possibility of explosion.

**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.

**TOLUENE**

Avoid exposure to: light.

**CYCLOHEXANONE**

Attacks various types of plastic materials.

May condense under the effect of heat to form resinous compounds.

**10.2. Chemical stability**

Excessively high temperatures can cause thermal decomposition.

**10.3. Possibility of hazardous reactions**

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.

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

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

Fire hazard.

**BENZYL ALCOHOL**

May react dangerously with: hydrobromic acid, iron, oxidising agents, sulphuric acid. Risk of explosion on contact with: phosphorus trichloride.

**CYCLOHEXANOL**

Risk of explosion on contact with: nitric acid, strong oxidising agents. May react dangerously with: alkaline metals, chromium trioxide. Forms explosive mixtures with: air.

**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.

**TOLUENE**

Risk of explosion on contact with: fuming sulphuric acid, nitric acid, silver perchlorate, nitrogen dioxide, non-metal halogenates, acetic acid, organic nitrocompounds. May form explosive mixtures with: air. May react dangerously with: strong oxidising agents, strong acids, sulphur.

**CYCLOHEXANONE**

Risk of explosion on contact with: hydrogen peroxide, nitric acid, heat, mineral acids. May react violently with: oxidising agents. Forms explosive mixtures with: air.

**10.4. Conditions to avoid**

Avoid overheating.

**BENZYL ALCOHOL**

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

**CYCLOHEXANOL**

Avoid exposure to: sources of heat, naked flames.

**4-METHYLPENTAN-2-ONE**

Avoid exposure to: sources of heat.

**ETHYL ACETATE**

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

**CYCLOHEXANONE**

Avoid exposure to: 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.

**BENZYL ALCOHOL**

Incompatible with: sulphuric acid, oxidising substances, aluminium.

**CYCLOHEXANOL**

Incompatible with: strong oxidants. 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.

**SECTION 11. Toxicological information ... / >>**

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

TOLUENE

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

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

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

NOAEL: 300 mg/Kg (cronic, 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.

TOLUENE

Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

TOLUENE

Certain drugs and other industrial products can interfere with the metabolism of the toluene.

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	960,94 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

TURPENTINE

LD50 (Oral) 5760 mg/kg Rat

TOLUENE

LD50 (Oral) 5580 mg/kg Rat  
 LD50 (Dermal) 12124 mg/kg Rabbit  
 LC50 (Inhalation) 28,1 mg/l/4h Rat

BENZYL ALCOHOL

LD50 (Oral) 1230 mg/kg Rat  
 LD50 (Dermal) 2000 mg/kg Rabbit  
 LC50 (Inhalation) > 4,1 mg/l/4h 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

**SECTION 11. Toxicological information ... / >>**

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin  
 May produce an allergic reaction.

Contains:

L - alpha - pinen

terpinolen

Eugenol

Malaleuca alternifolia extract

(-)-Pin-2(10)-Ene

DIPENTENE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).

The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

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

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.

**SECTION 12. Ecological information ... / >>**

**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

**TOLUENE**

Solubility in water 100 - 1000 mg/l  
 Rapidly degradable

**DIPENTENE**

NOT rapidly degradable

**CYCLOHEXANOL**

Solubility in water 36000 mg/l  
 Rapidly degradable

**BENZYL ALCOHOL**

Rapidly degradable

**4-METHYLPENTAN-2-ONE**

Solubility in water > 10000 mg/l  
 Rapidly degradable

**CYCLOHEXANONE**

Solubility in water 0,1 - 100 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

**TOLUENE**

Partition coefficient: n-octanol/water 2,73  
 BCF 90

**DIPENTENE**

Partition coefficient: n-octanol/water 4,5

**CYCLOHEXANOL**

Partition coefficient: n-octanol/water 1,25

**BENZYL ALCOHOL**

Partition coefficient: n-octanol/water 1,1

**4-METHYLPENTAN-2-ONE**

Partition coefficient: n-octanol/water 1,9

**CYCLOHEXANONE**

Partition coefficient: n-octanol/water 0,86

**SECTION 12. Ecological information ... / >>**

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

**12.4. Mobility in soil**

4-METHYLPENTAN-2-ONE  
 Partition coefficient: soil/water 2,008  
 CYCLOHEXANONE  
 Partition coefficient: soil/water 1,18

**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

Contained substance

Point 48 TOLUENE

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater 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

**SECTION 16. Other information ... / >>**

<b>Flam. Sol. 1</b>	Flammable solid, category 1
<b>Repr. 2</b>	Reproductive toxicity, category 2
<b>Acute Tox. 3</b>	Acute toxicity, category 3
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>STOT RE 1</b>	Specific target organ toxicity - repeated exposure, category 1
<b>Asp. Tox. 1</b>	Aspiration hazard, category 1
<b>STOT RE 2</b>	Specific target organ toxicity - repeated exposure, category 2
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Skin Sens. 1B</b>	Skin sensitization, category 1B
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 1</b>	Hazardous to the aquatic environment, chronic toxicity, category 1
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2
<b>H225</b>	Highly flammable liquid and vapour.
<b>H226</b>	Flammable liquid and vapour.
<b>H228</b>	Flammable solid.
<b>H361d</b>	Suspected of damaging the unborn child.
<b>H331</b>	Toxic if inhaled.
<b>H302</b>	Harmful if swallowed.
<b>H312</b>	Harmful in contact with skin.
<b>H332</b>	Harmful if inhaled.
<b>H372</b>	Causes damage to organs through prolonged or repeated exposure.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H400</b>	Very toxic to aquatic life.
<b>H410</b>	Very toxic to aquatic life with long lasting effects.
<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>EUH066</b>	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 ... / &gt;&gt;

- 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
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
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- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

## 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.

## Changes to previous review:

The following sections were modified:

01 / 03 / 08 / 11.

Changed TLVs in section 8.1 for following countries:

CZE,