# Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

**1.1. Product identifier**

| | |
| --- | --- |
| Code: | **0030550** |
| Product name | **OLIO 41** |
| Chemical name and synonym | **OLIO 41** |

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

| | |
| --- | --- |
| Sector of use: | **SU22 – Professional uses SU21 – Consumer uses** |
| Category of use: | **PC09a - Products for coatings and paints, thinners and paint removers** |
| Intended use | **drier impregnating oil for wood** |

**1.3. Details of the supplier of the safety data sheet**

| | |
| --- | --- |
| Name | **MARBEC S.R.L.** |
| Full address | **VIA CROCE ROSSA 5/i** |
| District and Country | **51037 MONTALE (PISTOIA)**<br>**ITALIA** |
| | **Tel. +039 0573/959848** |
| | **Fax** |
| e-mail address of the competent person responsible for the Safety Data Sheet Supplier: | **info@marbec.it** |

**1.4. Emergency telephone number**

| | |
| --- | --- |
| For urgent inquiries refer to | **MARBEC srl**<br>**+390573959848 h8.30-13 h14-18 or +393348578502**<br>**Number of Poison Centers active 24/24 hours**<br>**IRCSS Fondazione Maugeri –**<br>**Pavia 0039-0382-24444**<br>**CAV Ospedali Riuniti –**<br>**Bergamo 0039-800-883300**<br>**CAV Ospedale Niguarda Ca` Granda –**<br>**Milano 0039-02-66101029**<br>**CAV Ospedale Careggi- Firenze 0039-055-7947819**<br>**CAV Policlinico Gemelli –**<br>**Roma 0039-06-3054343**<br>**CAV Policlinico Umberto I –**<br>**Roma 0039-06 49978000**<br>**CAV Ospedale Cardarelli –**<br>**Napoli 0039-081 5453333**<br>**CAV Azienda Ospedaliera Integrata Verona - Verona 800011858** |

## 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 2020/878.
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. |
| Aspiration hazard, category 1 | H304 | May be fatal if swallowed and enters airways. |
| Specific target organ toxicity - single exposure, category 3 | H336 | May cause drowsiness or dizziness. |

### 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. |
| **H304** | May be fatal if swallowed and enters airways. |
| **H336** | May cause drowsiness or dizziness. |
| **EUH066** | Repeated exposure may cause skin dryness or cracking. |
| **EUH208** | Contains: Cobalt bis (2-ethylhexanoate)<br>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. |
| **P261** | Avoid breathing dust / fume / gas / mist / vapours / spray. |
| **P301+P310** | IF SWALLOWED: Immediately call a POISON CENTER / doctor / . . . |
| **P304+P340** | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |

| | |
|---|---|
| **Contains:** | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatic"<br>Hydrocarbons, C9, aromatic |

VOC (Directive 2004/42/EC) :

Minimal build woodstains.

| | |
|---|---|
| VOC given in g/litre of product in a ready-to-use condition : | 379,00 |
| Limit value: | 700,00 |

**2.3. Other hazards**

**Do not accumulate cloths, rags, sponges, sawdust, etc. impregnated with the product, they may self-ignite. Dispose of them after wetting them with water.**

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

## SECTION 3. Composition/information on ingredients

**3.2. Mixtures**

Contains:

| Identification | x = Conc. % | Classification (EC) 1272/2008 (CLP) |
|---|---|---|
| **Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics** | | |
| CAS - | 30 ≤ x < 50 | Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336, EUH066 |
| EC 919-857-5 | | Asp. Tox. 1 H304: ≥ 1% |
| INDEX - | | |
| REACH Reg. 01-2119463258-33 | | |
| **linseed oil oxidized** | | |
| CAS 68649-95-6 | 30 ≤ x < 50 | |
| EC 272-038-8 | | |
| INDEX - | | |
| REACH Reg. 01-2119484875-20-xxxx | | |
| **Hydrocarbons,C9, aromatics** | | |
| CAS - | 1 ≤ x < 2,5 | Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H335, STOT SE 3 H336, Aquatic Chronic 2 H411 |
| EC 918-668-5 | | |
| INDEX 649-356-00-4 | | |
| REACH Reg. 01-2119455851-35-XXXX | | |
| **Cobalt bis(2-ethylhexanoate)** | | |
| CAS 136-52-7 | 0 ≤ x < 0,5 | Repr. 2 H361f, Eye Irrit. 2 H319, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412 |
| EC 205-250-6 | | |
| INDEX - | | |
| REACH Reg. 01-2119524678-29-xxxx | | |
| **2-ethylhexanoic acid, zirconium salt** | | |
| CAS 22464-99-9 | 0 ≤ x < 0,5 | Repr. 2 H361d |
| EC 245-018-1 | | |
| INDEX - | | |

REACH Reg. 01-2119979088-21-xxxx

**Calcium bis(2-ethylhexanoate)**

CAS 136-51-6 | 0 ≤ x < 0,5 | Repr. 2 H361, Eye Dam. 1 H318

EC 205-249-0

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REACH Reg. 01-2119978297-19-0001

**DIPROPYLENE GLYCOL MONOMETHYL ETHER**

CAS 34590-94-8 | 0 ≤ x < 0,5 | Substance with a community workplace exposure limit.

EC 252-104-2

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REACH Reg. 01-2119450011-60-xxxx

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

NOTE: The dearomatised white spirit present in this product is a UVCB (PrC3) complex, CAS n.a., EC 919-857-5, n. INDEX: n.a. ("C9-C11 hydrocarbons, n-alkanes, isoalkanes, cyclics, <2% aromatics" A complex and variable combination of paraffinic, cyclic and aromatic hydrocarbons, having carbon numbers predominantly in the range of C9-C11 and boiling point in the range 130 ° C - 210 ° C). Some manufacturers provide the following related CASs: 64742-48-9.
Note P of Annex 1 applies. Benzene concentration <0.1 & by weight.

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

EYES: Wash immediately and abundantly with water for at least 15 minutes. If present, remove contact lenses if the situation allows you to do so with ease. Continue rinsing. Consult a doctor immediately.
SKIN: Wash immediately and abundantly with soap and water. Remove contaminated clothing. In case of irritation, swelling or redness, consult a specialist doctor. Wash contaminated clothing before re-use. For thermal burns, cool the injured part. Keep the burned part under cold running water for at least five minutes or until the pain disappears. Avoid general hypothermia. When using high pressure equipment, a product injection can occur even without apparent external injury. In this case immediately transfer the injured person to the hospital. Do not wait for the symptoms to appear.
INHALATION: In case of difficult breathing, bring the victim to the open air and keep him in a comfortable position for breathing. If the victim is unconscious and not breathing, check that there are no obstacles to breathing and practice artificial respiration by specialized personnel. If necessary, carry out external heart massage and consult a doctor. If the victim breathes, keep him in a safe lateral position. Give oxygen if necessary.
SWALLOWING: Do not cause vomiting to avoid the risk of aspiration. Immediately transport the injured person to hospital. Do not wait for symptoms to appear. In case of spontaneous vomiting, keep your head down to avoid the risk of aspiration of vomiting into the lungs.

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

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatic"Eye contact can cause irritation.
Skin contact: redness. Repeated exposure can cause skin dryness or chapping.
Inhalation: headache, dizziness, drowsiness, nausea and other effects on the central nervous system.
Ingestion: Ingestion can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. It can cause depression in the central nervous system. If ingested, the material can be aspirated into the lungs and cause chemical pneumonia.

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

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics
If ingested accidentally the product can enter the lungs because of its low viscosity and provoke the rapid development of serious lung injuries (keep under medical supervision for 48 hours).
Notes for doctor: Treat symptomatically.

linseed oil oxidized
Immediate medical care. Symptomatic treatment

## SECTION 5. Firefighting measures

**5.1. Extinguishing media**

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

**5.2. Special hazards arising from the substance or mixture**

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

**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
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## 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**

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Keep away from heat, sparks and open flames, do not smoke or use matches or lighters. Use appropriate personal protective equipment, if necessary. Avoid contact with skin and eyes. Do not swallow. Avoid breathing vapors. Do not release into the environment. Ensure that adequate cleaning measures (housekeeping) are taken. Contaminated material should not accumulate in the workplace and should never be stored in your pocket. Keep away from food and drink. Do not eat, drink or smoke while using the product. Wash hands thoroughly after handling. Do not reuse contaminated clothing. Avoid product dispersion 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.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatic"

Keep away from strong oxidants and reducing agents.
Keep away from food, drink and feed.
The structure of the storage area, the characteristics of the tanks, the equipment and the operating procedures shall comply with the relevant European, national or local legislation. Storage facilities shall be equipped with systems to prevent contamination of soil and water in the event of leakage or spillage. The cleaning, inspection and maintenance of the internal structure of storage tanks must be carried out by qualified and properly equipped personnel, as established by national, local or company regulations. Before entering the storage tanks and starting any type of intervention in a confined space, carry out appropriate remediation, check the atmosphere and verify the oxygen content and the degree of flammability.
Keep separate from oxidizing agents.
Suitable materials: use mild steel or stainless steel for containers and coatings. For the realization of containers or interior coatings use approved material suitable for the use of the product. Some synthetic materials may not be suitable for containers or coatings based on material characteristics and intended uses. Check the compatibility of materials at the manufacturer in relation to the conditions of use. If the product is supplied in containers, store only in the original container or in a container suitable for the type of product. Store containers carefully closed and properly labelled. Empty containers may contain flammable product residues, which may cause a fire or explosion hazard. Open slowly to control any pressure release. Do not weld, braze, perforate, cut or incinerate empty containers unless they have been properly reclaimed.

Storage class TRGS 510 (Germany):
3

**7.3. Specific end use(s)**

Information not available

## SECTION 8. Exposure controls/personal protection

**8.1. Control parameters**

Regulatory References:

| | | |
|---|---|---|
| DEU | Deutschland | Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56 |
| ESP | España | Límites de exposición profesional para agentes químicos en España 2021 |
| FRA | France | Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS |
| ITA | Italia | Decreto Legislativo 9 Aprile 2008, n.81 |
| PRT | Portugal | Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos |
| GBR | United Kingdom | EH40/2005 Workplace exposure limits (Fourth Edition 2020) |
| EU | OEL EU | Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; |

| | |
|---|---|
| RCP TLV | 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.<br>ACGIH TLVs and BEIs – Appendix H |

**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics**

**Threshold Limit Value**

| Type | Country | TWA/8h | | STEL/15min | | Remarks / Observations |
|---|---|---|---|---|---|---|
| | | mg/m3 | ppm | mg/m3 | ppm | |
| RCP TLV | | 1200 | 197 | | | |

| Predicted no-effect concentration - PNEC | |
|---|---|
| Normal value in fresh water | NPI |
| Normal value in marine water | NPI |
| Normal value for fresh water sediment | NPI |
| Normal value for marine water sediment | NPI |
| Normal value for water, intermittent release | NPI |
| Normal value of STP microorganisms | NPI |
| Normal value for the food chain (secondary poisoning) | NPI |
| Normal value for the terrestrial compartment | NPI |
| Normal value for the atmosphere | NPI |

**Health - Derived no-effect level - DNEL / DMEL**

| | Effects on consumers | | | | Effects on workers | | | |
|---|---|---|---|---|---|---|---|---|
| Route of exposure | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral | | | | 125 mg/kg bw/d | | | | |
| Inhalation | | | | 185 mg/m3 24h | | | | 871 mg/m3 8h |
| Skin | | | | 125 mg/kg bw/d | | | | 208 mg/kg bw/d |

**linseed oil oxidized**

**Health - Derived no-effect level - DNEL / DMEL**

| | Effects on consumers | | | | Effects on workers | | | |
|---|---|---|---|---|---|---|---|---|
| Route of exposure | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral | | | VND | 8,33 mg/kg bw/d | | | | |
| Inhalation | | | VND | 14,5 mg/m3 | | | VND | 49 mg/m3 |
| Skin | | | VND | 41,7 mg/kg bw/d | | | VND | 69,4 mg/kg bw/d |

**Hydrocarbons,C9, aromatics**

**Threshold Limit Value**

| Type | Country | TWA/8h | | STEL/15min | | Remarks / Observations |
|---|---|---|---|---|---|---|
| | | mg/m3 | ppm | mg/m3 | ppm | |
| OEL | EU | 100 | | | | |

**Health - Derived no-effect level - DNEL / DMEL**

| | Effects on consumers | | | | Effects on workers | | | |
|---|---|---|---|---|---|---|---|---|
| Route of exposure | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral | | | | | | | | 11 mg/kg bw/d |
| Inhalation | | | | 32 mg/m3 | | | | 150 mg/m3 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Skin | | | | 11 mg/kg bw/d | | | | 25 mg/kg bw/d |

**Cobalt bis(2-ethylhexanoate)**

| Predicted no-effect concentration - PNEC | | |
|---|---|---|
| Normal value in fresh water | 0,00051 | mg/l |
| Normal value in marine water | 0,00236 | mg/l |
| Normal value for fresh water sediment | 9,5 | mg/kg |
| Normal value for the terrestrial compartment | 7,9 | mg/kg |
| Normal value for the atmosphere | 0,37 | mg/lt |

**Health - Derived no-effect level - DNEL / DMEL**

| | Effects on consumers | | | | Effects on workers | | | |
|---|---|---|---|---|---|---|---|---|
| Route of exposure | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral | | | | 0,0558 mg/kg bw/d | | | | |
| Inhalation | | | 0,037 mg/m3 | | | | 0,2351 mg/m3 | |

**2-ethylhexanoic acid, zirconium salt**

**Threshold Limit Value**

| Type | Country | TWA/8h | | STEL/15min | | Remarks / Observations |
|---|---|---|---|---|---|---|
| | | mg/m3 | ppm | mg/m3 | ppm | |
| OEL | EU | 5 | | | | (come Zr) |

**Health - Derived no-effect level - DNEL / DMEL**

| | Effects on consumers | | | | Effects on workers | | | |
|---|---|---|---|---|---|---|---|---|
| Route of exposure | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral | | | | 4,51 mg/kg bw/d | | | | |
| Inhalation | | | | 8,13 mg/m3 | | | | 32,97 mg/m3 |
| Skin | | | | 3,25 mg/kg bw/d | | | | 6,49 mg/kg bw/d |

**Calcium bis(2-ethylhexanoate)**

**Threshold Limit Value**

| Type | Country | TWA/8h | | STEL/15min | | Remarks / Observations |
|---|---|---|---|---|---|---|
| | | mg/m3 | ppm | mg/m3 | ppm | |
| OEL | EU | 5000 | | | | |

**Health - Derived no-effect level - DNEL / DMEL**

| | Effects on consumers | | | | Effects on workers | | | |
|---|---|---|---|---|---|---|---|---|
| Route of exposure | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral | | | | 2,83 mg/kg bw/d | | | | |
| Inhalation | | | | 9,86 mg/m3 | | | | 39,98 mg/m3 |
| Skin | | | | 2,83 mg/kg bw/d | | | | 5,67 mg/kg bw/d |

**DIPROPYLENE GLYCOL MONOMETHYL ETHER**

**Threshold Limit Value**

| Type | Country | TWA/8h | | STEL/15min | | Remarks / Observations |
|---|---|---|---|---|---|---|
| | | mg/m3 | ppm | mg/m3 | ppm | |
| AGW | DEU | 310 | 50 | 310 | 50 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| MAK | DEU | 310 | 50 | 310 | 50 | |
| VLA | ESP | 308 | 50 | | | SKIN |
| VLEP | FRA | 308 | 50 | | | SKIN |
| VLEP | ITA | 308 | 50 | | | SKIN |
| VLE | PRT | 308 | 50 | | | SKIN |
| WEL | GBR | 308 | 50 | | | SKIN |
| OEL | EU | 308 | 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.

HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
Materials presumably suitable for gloves: nitrile, PVC or PVA (polyvinyllacool) with a chemical protection index of at least 5 (permeation time > 240 minutes).
Compatibility, degradation, breaking time and permeation must be considered when choosing the material of work gloves.
In the case of preparations, the resistance of work gloves to chemical agents must be checked before use because it is not foreseeable. Gloves have a wear time which depends on the duration and mode of use.

SKIN PROTECTION
Wear category I 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).

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.
Do not release into the environment. Storage facilities shall be equipped with systems to prevent contamination of soil and water in the event of leakage or spillage. Prevent the release of undissolved substances or recover them from wastewater. Do not distribute sludge generated by industrial water treatment on natural soils. Sludge generated by industrial water treatment must be incinerated, kept under containment or treated.
Other information Minimise exposure to mists/vapours/aerosols. Before entering the storage tanks and starting any type of intervention in a confined space, carry out appropriate remediation, check the atmosphere and verify the oxygen content and the degree of flammability.

Activities with large dispersion that lead to a probable consistent release of aerosols (e.g. use with airless spray application) are reserved for EXCLUSIVE PROFESSIONAL USE. Use additional protective measures: use an approved air-powered respirator operating at positive pressure. Air-powered respirators with an exhaust bottle may be appropriate when oxygen levels are inadequate, if the risks of gases/vapours are low, and if the capacity'/values of the air purification filters can be exceeded. For high aerodisperse concentrations, also use waterproof clothing to protect the skin and protect the face.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| Properties | Value | Information |
|---|---|---|
| Appearance | liquid | |
| Colour | yellowish | |
| Odour | characteristic | |
| Melting point / freezing point | Not available | |
| Initial boiling point | 165 °C | |
| Flammability | Not available | |
| Lower explosive limit | Not available | |
| Upper explosive limit | Not available | |
| Flash point | 23 ≤ T ≤ 60 °C | |
| Auto-ignition temperature | Not available | |
| pH | Not applicable | Reason for missing data:substance/mixture is non-soluble (in water) |
| Kinematic viscosity | Not available | |
| Solubility | immiscible with water | |
| Partition coefficient: n-octanol/water | Not available | |
| Vapour pressure | Not available | |
| Density and/or relative density | 0,85 kg/l | |
| Relative vapour density | Not available | |
| Particle characteristics | Not applicable | |

### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2004/42/EC) : 44,59 % - 379,00 g/litre

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

If finely distributed and in contact with air there is a risk of self-ignition under certain conditions.

**10.2. Chemical stability**

The product is stable in normal conditions of use and storage.

**10.3. Possibility of hazardous reactions**
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatic"Vapours can form explosive mixtures with air. Contact with strong oxidants (such as peroxides and chromates) can cause a fire hazard. A mixture with nitrates or other strong oxidants (such as chlorates, perchlorates and liquid oxygen) may generate an explosive mass. Sensitivity to heat, friction and shock cannot be assessed in advance.

**10.4. Conditions to avoid**

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

**10.5. Incompatible materials**

Strong oxidizing agents

**10.6. Hazardous decomposition products**

Acrolein, carbon monoxide, carbon dioxide (carbon dioxide)

## SECTION 11. Toxicological information

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Local effects. Product information:
Skin contact. Symptoms: Redness. Repeated exposure may cause skin dryness or cracking. Eye Contact: Contact with eyes may cause irritation.
Inhalation: Inhalation of the vapors may cause drowsiness and dizziness. It can cause irritation. Inhalation of vapors can cause headache, nausea, vomiting and changes in consciousness.
Ingestion: if accidentally ingested, the product can enter the lungs due to its low viscosity and cause the rapid development of serious lung lesions (keep under medical supervision for 48 hours). Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system depression.
Other adverse effects
Vapor concentrations above the recommended exposure levels are irritating to the eyes and respiratory tract, can cause headache and dizziness, have an anesthetic effect and cause other central nervous system effects. Repeated and / or prolonged skin contact with low viscosity materials can degrease the skin with possible development of irritation and dermatitis. Small amounts of fluid, aspirated into the lungs if swallowed or vomit, can cause chemical pneumonia or pulmonary edema.

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

| | |
|---|---|
| ATE (Inhalation) of the mixture: | Not classified (no significant component) |
| ATE (Oral) of the mixture: | Not classified (no significant component) |
| ATE (Dermal) of the mixture: | Not classified (no significant component) |

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

| | |
|---|---|
| LD50 (Dermal): | > 2000 mg/kg |
| LD50 (Oral): | > 5000 mg/kg |
| LC50 (Inhalation vapours): | > 9300 mg/l/4h |

linseed oil oxidized

| | |
|---|---|
| LD50 (Dermal): | > 2000 mg/kg ratto |
| LD50 (Oral): | > 4790 mg/kg ratto |

Hydrocarbons,C9, aromatics

| | |
|---|---|
| LD50 (Dermal): | > 2000 mg/kg |
| LD50 (Oral): | > 2000 mg/kg |
| LC50 (Inhalation vapours): | > 5 mg/l/4h |

Cobalt bis(2-ethylhexanoate)

| | |
|---|---|
| LD50 (Dermal): | > 2000 mg/kg |
| LD50 (Oral): | 3129 mg/kg ratto |

2-ethylhexanoic acid, zirconium salt

| | |
|---|---|
| LD50 (Dermal): | > 2000 mg/kg coniglio |
| LD50 (Oral): | > 2000 mg/kg |
| LC50 (Inhalation mists/powders): | > 8800 mg/m3/1h ratto |

Calcium bis(2-ethylhexanoate)

| | |
|---|---|
| LD50 (Dermal): | > 2000 mg/kg Ratto - wistar |
| LD50 (Oral): | 2043 mg/kg Ratto - Fischer 344 |

SKIN CORROSION / IRRITATION

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Repeated exposure can cause skin dryness and cracking. Slightly irritating to the skin on prolonged exposure.

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

EYE CONTACT: May cause mild, short-term eye discomfort. Based on test data for materials of similar structure to OECD guideline 405.

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:

Cobalt bis(2-ethylhexanoate)

Respiratory sensitization

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Not assumed to be a respiratory sensitizer.

Skin sensitization

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Not assumed to be a skin sensitizer to OECD 406 guidelines.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

The mutagenic potential of the substance has been extensively investigated in a range of in-vivo and in-vitro analyzes. Genetic toxicity: negative. It is assumed that it is not a germ cell mutagenic agent. Based on test data for materials of similar structure to OECD guidelines 471 473 474 476 478 479.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

This product is not classified as a carcinogen. It is assumed that it does not cause cancer. Based on test data for materials of similar structure to OECD guideline 453.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

No information available. It is assumed that it is not a toxic agent for reproduction. Based on test data for materials of similar structure to OECD guidelines 414 421 422.

Cobalt bis(2-ethylhexanoate)

NOAEL (rat; F1) = 100 mg / kg bw / day.

2-ethylhexanoic acid, zirconium salt

NOAEL (rat; F1) = 100 mg / kg / bw / day.

Calcium bis(2-ethylhexanoate)

NOAEL (rat; F1) = 100 mg / kg bw / day.

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

The results of the studies on the substance related to developmental toxicity, dictated by the OECD guidelines, and those of the screening studies in the same setting did not reveal any tissue in rats.

Effects on or via lactation

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Lactation: Not expected to be harmful to breastfed infants.

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Single Exposure: May cause drowsiness and dizziness. This substance does not meet the EU criteria for classification.

Target organs

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Central nervous system

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Repeated Exposure: Not expected to cause organ damage following prolonged and repeated exposure. Based on test data for materials of similar structure to OECD guideline 408 413 422. No known effects based on information provided.

Target organs

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Central nervous system.

Route of exposure

Information not available

ASPIRATION HAZARD

Toxic for aspiration

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

The fluid can enter the lungs and cause damage (chemical pneumonia, potentially fatal).

**11.2. Information on other hazards**

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

## SECTION 12. Ecological information

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Use according to good working practices, avoiding to disperse the product in the environment. Notify the competent authorities if the product has reached waterways or sewers or if it has contaminated the soil or vegetation. C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatic (EC 919-857-5) hydrocarbons: Based on the ecological information below and according to the criteria indicated in the regulations on dangerous substances, this substance is not classified as hazardous to the environment.

**12.1. Toxicity**

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatic (EC 919-857-5): below is a summary of the most representative studies of the Registration Dossier . Aquatic toxicity:
Endpoint: Invertebrates - Short term (Daphnia magna)
Result: EL50 (48 h): >1000 mg/L (mobility); EL50 (24 h): >1000 mg/L (mobility)
Comments: Key study (C9-C11, <2% aromatic) - OECD Guideline 202 - SRC (1995)
Endpoint: Invertebrates - Short term (Chaetogammarus marinus)
Result: LL50 (48 h): > 1000 mg/L (mortality); LL50 (24 h): >1000 mg/L (mortality)
Comments: Key study (C9-C11 <2 % aromatic) OECD Guideline 202 - TNO (1992)
Endpoint: Invertebrates - Long term (Daphnia magna)
Result: NOELR (21 days): 0.23 mg/L (reproduction)
Comments: Support study (C9-C11 <2 % aromatic) (Q)SAR Modeled date - CONCAWE (2010)

Endpoint: Algae (Pseudokirchnerella subcapitata) Inhibition of growth
Result: EC50 (72 h ): > 1000 mg/L (Growth); EC50 (72 h ): > 1000 mg/L (biomass); NOELR (72 h): 3 mg/L (Number of cells); NOELR (72 h): 100 mg/L (Growth)
Comments: Key study (C9-C11 <2 % aromatic) OECD Guideline 201 - SRC (1995)
Endpoint: Fish - Short term (Oncorhynchus mykiss)
Result: LL50 (24 h):>1000 mg/L; LL0 (24 h):1000 mg/L; LL50 (48 h): >1000 mg/L; LL0 (48 h):1000 mg/L; LL50 (72): >1000 mg/L; LL0 (72 h) mg/L:
Comments: Key study (C9-C11 <2 % aromatic) OECD Guideline 203 - SRC (1995).

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

| | |
|---|---|
| LC50 - for Fish | > 1000 mg/l/96h |
| EC50 - for Crustacea | > 1000 mg/l/48h |
| EC50 - for Algae / Aquatic Plants | > 1000 mg/l/72h |

Hydrocarbons,C9, aromatics

| | |
|---|---|
| LC50 - for Fish | > 1 mg/l/96h |
| EC50 - for Crustacea | > 10 mg/l/48h |
| EC50 - for Algae / Aquatic Plants | > 100 mg/l/72h |

Cobalt bis(2-ethylhexanoate)

| | |
|---|---|
| LC50 - for Fish | 8,9 mg/l/96h Onch. mykiss |
| EC50 - for Crustacea | 3,6 mg/l/48h Daphnia magna |
| EC50 - for Algae / Aquatic Plants | 0,85 mg/l/72h Pseudokirhneriella |
| Chronic NOEC for Fish | 2,07 mg/l Pimephales promelas |
| Chronic NOEC for Crustacea | 0,032 mg/l Crustaceans 28 giorni |

Calcium bis(2-ethylhexanoate)

| | |
|---|---|
| LC50 - for Fish | 180 mg/l/96h |
| EC50 - for Crustacea | 85,4 mg/l/48h |
| EC50 - for Algae / Aquatic Plants | 49,3 mg/l/72h |

2-ethylhexanoic acid, zirconium salt

| | |
|---|---|
| LC50 - for Fish | > 100 mg/l/96h |
| EC50 - for Crustacea | 85,4 mg/l/48h |
| EC50 - for Algae / Aquatic Plants | 49,3 mg/l/72h |

**12.2. Persistence and degradability**

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics
Abiotic degradability: Hydrolysis: this substance is resistant to hydrolysis Therefore, this process will not contribute to a measurable loss of degradation of the substance in the environment.
Biotic degradability: Based on available studies and the properties of C9-C16 hydrocarbons, this substance is considered inherently biodegradable.
Method : Non-adapted microorganisms OECD Guideline 301 F
Result : Readily biodegradable 80 % (28 days)
Comments : Reliable key study without restrictions (C9-C11, <2% aromatic)
Source: Shell (1997).

DIPROPYLENE GLYCOL MONOMETHYL ETHER

| | |
|---|---|
| Solubility in water | 1000 - 10000 mg/l |

Rapidly degradable

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

Entirely degradable

Hydrocarbons,C9, aromatics

Rapidly degradable

linseed oil oxidized

Rapidly degradable
(secondo i criteri OCSE)

Cobalt bis(2-ethylhexanoate)

| | |
|---|---|
| Solubility in water | > 10000 mg/l |

Rapidly degradable

Calcium bis(2-ethylhexanoate)

| | |
|---|---|
| Solubility in water | > 10000 mg/l |

Rapidly degradable

2-ethylhexanoic acid, zirconium salt

| | |
|---|---|
| Solubility in water | < 0,1 mg/l |

Rapidly degradable

**12.3. Bioaccumulative potential**

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatic (EC 919-857-5): Standard tests for this endpoint are not applicable to UVCB substances.

DIPROPYLENE GLYCOL MONOMETHYL ETHER

| | |
|---|---|
| Partition coefficient: n-octanol/water | 0,0043 |

linseed oil oxidized

| | |
|---|---|
| Partition coefficient: n-octanol/water | > 6 Kow |

Cobalt bis(2-ethylhexanoate)

| | |
|---|---|
| BCF | 15600 |

2-ethylhexanoic acid, zirconium salt

| | |
|---|---|
| BCF | 2,96 |

**12.4. Mobility in soil**

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatic (EC 919-857-5): Koc absorption: Standard tests for this endpoint are not applicable to substances
UVCB.

linseed oil oxidized

| | |
|---|---|
| Partition coefficient: soil/water | > 4,96 l/kg |

**12.5. Results of PBT and vPvB assessment**

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatic (EC 919-857-5): Comparison with the criteria of Annex XIII of the reach Regulation
Persistence assessment: Some hydrocarbon structures contained in this substance have characteristics of P (Persistent) or vp (very Persistent).
Evaluation of bioaccumulation potential: the structure of most hydrocarbons contained in this substance DO NOT present characteristics of vb (very Bioaccumulative) however some components have characteristics of B (Bioaccumulative).
Toxicity assessment: for hydrocarbon structures showing P and B characteristics toxicity but no relevant component meets the toxicity criteria with the exception of`anthracene which has been confirmed as a PBT. Since`anthracene is not present, the product is not considered PBT/vPvB.
According to the available data, the product does not contain PBT or vPvB substances in percentage to 0.1%.

**12.6. Endocrine disrupting properties**

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatic (EC 919-857-5): Dispersion in the environment may lead to contamination of environmental matrices
(air, soil, subsoil, surface and groundwater). Use according to good working practice, avoiding to disperse the products in the environment
According to the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disrupters with effects on the environment being evaluated.

**12.7. 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 or ID 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 |
| 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 |

**14.5. Environmental hazards**

| | |
|---|---|
| ADR / RID: | NO |
| IMDG: | NO |
| IATA: | NO |

**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 provision: | A3, A72, A192 | |

**14.7. Maritime transport in bulk according to IMO instruments**

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/EU: P5c

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

Product

| | |
|---|---|
| Point | 3 - 40 |

Contained substance

| | |
|---|---|
| Point | 75 |

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

Not applicable

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 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 dangerous to health must be subject to health surveillance carried out in accordance with the provisions of art. 41 of D.Lgs. 81 of 9 April 2008 unless the risk to the safety and health of the worker has been assessed irrelevant, in accordance with art. 224 paragraph 2.

VOC (Directive 2004/42/EC) :

Minimal build woodstains.

### 15.2. Chemical safety assessment

A chemical safety assessment has been prepared for the following substances in the mixture:Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics

## SECTION 16. Other information

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

| | |
|---|---|
| **Flam. Liq. 3** | Flammable liquid, category 3 |
| **Repr. 2** | Reproductive toxicity, category 2 |
| **Asp. Tox. 1** | Aspiration hazard, category 1 |
| **Eye Dam. 1** | Serious eye damage, category 1 |
| **STOT SE 3** | Specific target organ toxicity - single exposure, category 3 |
| **Skin Sens. 1** | Skin sensitization, category 1 |
| **Aquatic Acute 1** | Hazardous to the aquatic environment, acute toxicity, category 1 |
| **Aquatic Chronic 2** | Hazardous to the aquatic environment, chronic toxicity, category 2 |
| **H226** | Flammable liquid and vapour. |
| **H361** | Suspected of damaging fertility or the unborn child. |
| **H361d** | Suspected of damaging the unborn child. |
| **H361f** | Suspected of damaging fertility. |
| **H304** | May be fatal if swallowed and enters airways. |
| **H318** | Causes serious eye damage. |
| **H335** | May cause respiratory irritation. |
| **H317** | May cause an allergic skin reaction. |
| **H336** | May cause drowsiness or dizziness. |
| **H400** | Very toxic to aquatic life. |
| **H411** | Toxic to aquatic life with long lasting effects. |
| **EUH066** | Repeated exposure may cause skin dryness or cracking. |

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 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: 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: Regulation (EC) 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: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
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8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
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- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- 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.
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:
01 / 02 / 03 / 09 / 11 / 12 / 15 / 16.