

Safety Data Sheet

Complies with Annex II of REACH - Regulation (EU) 2020/878

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

1.1. Product identifier

Code: 0030550
Name: TIROIL
Chemical name and synonyms: TIROIL

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

Sector of use: SU22 – Professional uses SU21-Consumer uses

Description/Usage: drying impregnating oil for wood

1.3. Information about the supplier of the safety data sheet

Business name: MARBEC SRL
Address: VIA CROCE ROSSA 5/i
Locality and State: 51037 MONTALE (PISTOIA)
ITALY
tel. +039 0573/959848
fax

e-mail of the competent person,
responsible for the safety data sheet: info@marbec.it

1.4. Emergency telephone number

For urgent information please contact

MARBEC srl
+390573959848 8.30am-1pm 2pm-6pm or +393348578502
Telephone number of Poison Control Centers active 24 hours a day
IRCSS Maugeri Foundation –
Pavia 0039-0382-24444
CAV Ospedali Riuniti –
Bergamo 0039-800-883300
CAV Niguarda Ca` Granda Hospital –
Milan 0039-02-66101029
CAV Careggi Hospital - Florence 0039-055-7947819
CAV Gemelli Polyclinic –
Rome 0039-06-3054343
CAV Policlinico Umberto I –
Rome 0039-06 49978000
CAV Cardarelli Hospital –
Naples 0039-081 5453333
CAV Verona Integrated Hospital Company - Verona 800011858

SECTION 2. Hazard Identification

2.1. Substance or mixture classification

The product is classified as dangerous pursuant to the provisions of Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and adjustments). The product therefore requires a safety data sheet compliant with the provisions of Regulation (EU) 2020/878. Any additional information regarding risks to health and/or the environment is reported in the sections. 11 and 12 of this sheet.

Hazard classification and indications:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Aspiration hazard, category 1	H304	It can be lethal if ingested and enters the respiratory tract.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

2.2. Label elements

Hazard labeling pursuant to Regulation (EC) 1272/2008 (CLP) and subsequent amendments and adjustments.

Hazard pictograms:



Warnings:

Danger

Hazard Statements:

H226	Flammable liquid and vapour.
H304	It can be lethal if ingested and enters the respiratory tract.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause dryness or cracking of the skin.
EUH208	Contains: Neodecanoic acid, cobalt salt May cause an allergic reaction.

Precautionary advice:

P210	Keep away from heat, hot surfaces, sparks, open flames or other sources of ignition. Not smoking.
P331	DO NOT induce vomiting.
P280	Wear protective gloves/clothing and protect your eyes/face.
P261	Avoid breathing dust / fumes / gases / mist / vapors / aerosols.
P312	If you feel unwell, contact a POISON CENTER / doctor / . . .
P403+P233	Keep container tightly closed and in a well-ventilated place.

Contains:

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

Hydrocarbons, C9, aromatics

VOC (Directive 2004/42/EC):

Wood stains that form a film of minimum thickness.

VOC expressed in g/liter of ready-to-use product: 379.00

Maximum limit: 700.00

2.3. Other dangers

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

Based on available data, the product does not contain PBT or vPvB substances in percentages $\geq 0.1\%$.

The product does not contain substances with properties that interfere with the endocrine system in concentrations $\geq 0.1\%$.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
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Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <2% aromatics"

CAS - CE 919-857-5 INDEX - REACH Reg. 01-2119463258-33	$50 \leq x < 100$	Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336, EUH066 Wait. Tox. 1 H304: $\geq 1\%$
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Cooked linseed oil

CAS 68649-95-6 CE 272-038-8 INDEX - REACH Reg. 01-2119484875-20-xxxx	$30 \leq x < 50$	
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tung oil

CAS 8001-20-5 THERE IS INDEX -	$9 \leq x < 30$	
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Hydrocarbons, C9, aromatics

CAS - CE 918-668-5 INDEX 649-356-00-4 REACH Reg. 01-2119455851-35-XXXX	$1 \leq x < 2.5$	Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H335, STOT SE 3 H336, Aquatic Chronic 2 H411
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Neodecanoic acid, cobalt salt

CAS 27253-31-2 CE 248-373-0 INDEX - REACH Reg. 01-2119970733-31-0006	$0 \leq x < 0.5$	Acute Tox. 4 H302, STOT RE 1 H372, Skin Sens. 1 H317, Aquatic Chronic 3 H412 LD50 Oral: 1567 mg/kg
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The complete text of the hazard indications (H) is shown in section 16 of the sheet.

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

NOTE: The dearomatized white spirit in this product is a UVCB complex (PrC3), CAS na, EC 919-857-5, n. INDEX: na ("C9-C11 hydrocarbons, n-alkanes, isoalkanes, cyclic, <2% aromatic" complex and variable combination of paraffinic, cyclic and aromatic hydrocarbons, having carbon numbers predominantly in the C9-C11 range and point boiling point in the range 130°C - 210°C). Some manufacturers provide the following related CAS: 64742-48-9.

Applicable Note P of Annex 1. Benzene concentration < 0.1 & by weight.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove any contact lenses. Wash immediately and abundantly with water for at least 15 minutes, opening the eyelids wide. Consult a doctor if the problem persists.

SKIN: Take off contaminated clothing. Shower immediately. Call a doctor immediately. Wash the contaminated garments before reusing them.

INHALATION: Move the subject to fresh air. If breathing stops, give artificial respiration. Call a doctor immediately.

INGESTION: Call a doctor immediately. Do not induce vomiting. Do not administer anything that is not expressly authorized by your doctor.

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

EYES: wash immediately and abundantly with water for at least 15 minutes. Remove contact lenses, if present, if the situation allows you to carry out the operation easily. Continue rinsing. Consult a doctor immediately.

SKIN: wash immediately and abundantly with soap and water. Take off contaminated clothing. In case of irritation, swelling or redness, consult a specialist doctor. Wash the contaminated garments before reusing them. For thermal burns, cool the injured part. Hold the burned area under cold running water for at least five minutes or until the pain disappears. Avoid general hypothermia. When using high pressure equipment, product injection may occur even without apparent external injury. In this case, immediately transfer the injured person to hospital. Don't wait for symptoms to appear.

INHALATION: In case of difficulty breathing, take the victim to fresh air and keep him in a position comfortable for breathing. If the injured person is unconscious and not breathing, check that there are no obstacles to breathing and perform artificial respiration by specialized personnel. If necessary, perform external cardiac massage and consult a doctor. If the casualty is breathing, keep him in a safe lateral position. Administer oxygen if necessary.

INGESTION: do not induce vomiting to avoid the risk of aspiration. Transport the injured person to hospital immediately. Don't wait for symptoms to appear. In case of spontaneous vomiting, keep your head down to avoid the risk of aspiration of the vomit into the lungs.

4.2. Main symptoms and effects, both acute and delayed

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

Contact with eyes may cause irritation. Skin contact: redness. Repeated exposure may cause dryness or cracking of the skin. Inhalation: headache, dizziness, drowsiness, nausea and other central nervous system effects. Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system depression. If ingested, the material can be aspirated into the lungs and cause chemical pneumonitis.

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

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

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).

Notes to physician: Treat symptomatically.

Cooked linseed oil

Immediate medical assistance. Symptomatic treatment

SECTION 5. Fire fighting measures

5.1. Fire fighting**SUITABLE EXTINGUISHING MEANS**

The extinguishing media are: carbon dioxide, foam, chemical powder. For product leaks and spills that have not ignited, water spray can be used to disperse flammable vapors and protect those trying to stop the leak.

UNSUITABLE EXTINGUISHING MEANS

Do not use water jets. Water is not effective in extinguishing fires however it can be used to cool closed containers exposed to flames preventing explosions.

5.2. Special hazards arising from the substance or mixture**DANGERS DUE TO EXPOSURE IN THE EVENT OF FIRE**

Overpressure can be created in containers exposed to fire with risk of explosion. Avoid breathing combustion products.

5.3. Recommendations for fire fighters**GENERAL INFORMATION**

Cool the containers with jets of water to avoid decomposition of the product and the development of substances potentially dangerous to health. Always wear full fire protection equipment. Collect extinguishing water that must not be discharged into sewers. Dispose of the contaminated water used for extinguishing and the residue of the fire according to current regulations.

EQUIPMENT

Normal fire-fighting clothing, such as an open circuit compressed air breathing apparatus (EN 137), flame retardant suit (EN469), flame retardant gloves (EN 659) and fire fighter boots (HO A29 or A30).

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

Stop the leak if there is no danger.

Wear appropriate protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of skin, eyes and personal clothing. These indications are valid both for workers and for emergency interventions.

Keep unequipped people away. Use explosion-proof equipment. Eliminate any sources of ignition (cigarettes, flames, sparks, etc.) or heat from the area where the leak occurred.

6.2. Environmental precautions

Prevent the product from entering sewers, surface waters and groundwater.

6.3. Methods and materials for containment and cleanup

Suck up the spilled product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10. Absorb the remainder with inert absorbent material.

Provide sufficient ventilation of the area affected by the leak. Disposal of contaminated material must be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections

Any information regarding personal protection and disposal is reported in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for Safe Handling

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclic, <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 vapours. Do not release into the environment. Ensure that adequate housekeeping measures are taken. Contaminated material must not accumulate in the workplace and must never be kept in pockets. Keep away from food and drinks. Do not eat, drink or smoke while using the product. Wash your hands thoroughly after handling. Do not reuse contaminated clothing. Avoid dispersing the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a cool, well-ventilated place, away from heat sources, open flames, sparks and other sources of ignition. Store containers away from any incompatible materials, checking section 10.

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

Keep away from strong oxidants and reducers. Keep away from food, drink and feed. The structure of the storage area, the characteristics of the tanks, the equipment and the operating procedures must comply with the relevant legislation at European, national or local level. Storage facilities must be equipped with appropriate systems to prevent soil and water contamination in the event of leaks or spills. The cleaning, inspection and maintenance activities of the internal structure of the storage tanks must be carried out by qualified and correctly equipped personnel, as established by national, local legislation or company regulations. Before accessing the storage tanks and starting any type of intervention in a confined space, carry out adequate reclamation, check the atmosphere and check the oxygen content and the degree of flammability. Store separate from oxidizing agents. Suitable materials: Use mild steel or stainless steel for containers and linings. To create containers or internal linings, use approved material suitable for use with the product. Some synthetic materials may not be suitable for containers or liners based on material characteristics and intended uses. Check the compatibility of the materials with 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. Keep containers carefully closed and correctly labelled. Empty containers may contain flammable product residues, which may cause fire or explosion hazards. Open slowly to monitor any pressure release. Do not weld, braze, puncture, cut or incinerate empty containers unless they have been properly cleaned.

Storage class TRGS 510 (Germany):

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7.3. Specific end uses

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Normative requirements:

ITA	Italy	Legislative Decree 9 April 2008, n.81
EU	OEL EU	Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	CPR TLV	

ACGIH TLVs and BEIs –
Appendix H

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

Threshold limit value

Guy	State	TWA/8h		STEL/15min		Notes / Observations
		mg/m3	ppm	mg/m3	ppm	
CPR TLV		1200	197			
Predicted no-effect concentration on the environment - PNEC						

Reference value in fresh water	NPI
Reference value in sea water	NPI
Reference value for sediments in fresh water	NPI
Reference value for sediments in sea water	NPI
Reference value for water, intermittent release	NPI
Reference value for STP microorganisms	NPI
Reference value for the food chain (secondary poisoning)	NPI
Reference value for the terrestrial compartment	NPI
Reference value for the atmosphere	NPI

Health - Derived No Effect Level - DNEL / DMEL

Exhibition Street	Effects on consumers			Effects on workers				
	Acute rooms	Acute systemic	Chronic premises	Chronic systemic	Acute rooms	Acute systemic	Chronic premises	Chronic systemic
Oral				125 mg/kg bw/d				
Inhalation				185 mg/m3 24h				871 mg/m3 8h
Dermal				125 mg/kg bw/d				208 mg/kg bw/d

Cooked linseed oil**Health - Derived No Effect Level - DNEL / DMEL**

Exhibition Street	Effects on consumers			Effects on workers				
	Acute rooms	Acute systemic	Chronic premises	Chronic systemic	Acute rooms	Acute systemic	Chronic premises	Chronic systemic
Oral			VND	8.33 mg/kg bw/d				
Inhalation			VND	14.5 mg/m3			VND	49 mg/m3
Dermal			VND	41.7 mg/kg bw/d			VND	69.4 mg/kg bw/d

Hydrocarbons, C9, aromatics**Threshold limit value**

Guy	State	TWA/8h	STEL/15min	Notes / Observations	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	100			

Health - Derived No Effect Level - DNEL / DMEL

Exhibition Street	Effects on consumers			Effects on workers				
	Acute rooms	Acute systemic	Chronic premises	Chronic systemic	Acute rooms	Acute systemic	Chronic premises	Chronic systemic
Oral								11 mg/kg bw/d
Inhalation				32 mg/m3				150 mg/m3
Dermal				11 mg/kg bw/d				25 mg/kg bw/d

Neodecanoic acid, cobalt salt**Threshold limit value**

Guy	State	TWA/8h	STEL/15min	Notes / Observations	
		mg/m3	ppm	mg/m3	ppm
VLEP	ITA	0.1			

Predicted no-effect concentration on the environment - PNEC

Reference value in fresh water	0.003	mg/l
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Reference value in sea water	0.00236	mg/l
Reference value for sediments in fresh water	9.5	mg/kg/d
Reference value for sediments in sea water	9.5	mg/kg/d
Reference value for STP microorganisms	0.37	mg/l
Reference value for the terrestrial compartment	10.9	mg/kg/d

Health - Derived No Effect Level - DNEL / DMEL

Exhibition Street	Effects on consumers			Effects on workers				
	Acute rooms	Acute systemic	Chronic premises	Chronic systemic	Acute rooms	Acute systemic	Chronic premises	Chronic systemic
Oral				0.0649 mg/kg bw/d				
Inhalation			0.043 mg/m3				0.273 mg/m3	

Legend:

(C) = CEILING ; INALAB = Inhalable Fraction; RESPIR = Respirable Fraction; TORAC = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available; NEA = no expected exposure; NPI = no hazard identified.

8.2. Exposure controls

Considering that the use of adequate technical measures should always take priority over personal protective equipment, ensure good ventilation in the workplace through effective local extraction.

When choosing personal protective equipment, ask your chemical suppliers for advice if necessary.

Personal protective equipment must bear the CE marking which certifies their compliance with current regulations.

HAND PROTECTION

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

Presumably suitable materials for gloves: nitrile, PVC or PVA (polyvinyl alcohol) with a protection index from chemical agents of at least 5 (breakthrough time > 240 minutes).

For the final choice of work glove material, the following must be considered: compatibility, degradation, breaking time and permeation.

In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as it is unpredictable. The gloves have a wear time that depends on the duration and method of use.

SKIN PROTECTION

Wear work clothes with long sleeves and safety footwear for professional category I use (ref. Regulation 2016/425 and standard EN ISO 20344). Wash with soap and water after removing protective clothing.

Consider providing anti-static clothing if the work environment presents a risk of explosiveness.

EYE PROTECTION

We recommend wearing airtight protective glasses (ref. standard EN 166).

RESPIRATORY PROTECTION

Not necessary for normal use.

If the threshold value (e.g. TLV-TWA) of the substance or one or more of the substances present in the product is exceeded (e.g. use in unventilated environments, formation of dust or aerosol), it is recommended to wear a mask with type A filter whose class (1, 2 or 3) must be chosen in relation to the limit concentration of use. (ref. standard EN 14387). If gases or vapors of a different nature and/or gases or vapors with particles (aerosols, fumes, mists, etc.) are present, combined filters must be provided.

The use of respiratory protection means is necessary if the technical measures adopted are not sufficient to limit the worker's exposure to the threshold values taken into consideration. However, the protection offered by masks is limited.

In the event that the substance considered is odorless or its olfactory threshold is higher than the relevant TLV-TWA and in case of emergency, wear an open-circuit compressed air breathing apparatus (ref. standard EN 137) or a self-contained breathing apparatus external air (ref. EN 138 standard). For the correct choice of respiratory protection device, refer to the EN 529 standard.

ENVIRONMENTAL EXPOSURE CONTROLS

Emissions from production processes, including those from ventilation equipment, should be controlled for compliance with environmental protection legislation.

Do not release into the environment. Storage facilities must be equipped with appropriate systems to prevent soil and water contamination in the event of leaks or spills. 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 from industrial water treatment must be incinerated, kept under containment or treated.

Other information Minimize exposure to mists/vapours/aerosols. Before accessing the storage tanks and starting any type of intervention in a confined space, carry out adequate reclamation, check the atmosphere and check the oxygen content and the degree of flammability.

Activities with large dispersion that lead to a probable large release of aerosols (e.g. use with spray application with an airless system) are reserved for PROFESSIONAL USE ONLY. Use additional protective measures: use an approved air-supplied respirator, operating at positive pressure. Air-supplied respirators, with a waste bottle, may be appropriate when oxygen levels are inadequate, if gas/vapor risks are low, and if the capacity/ratings of air purification filters may be exceeded. For high airborne 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

Property	Value	Information
Physical State	liquid	
Color	yellowish	
Odor	characteristic	
Melting or freezing point	Not available	
Initial boiling point	165°C	
Flammability	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Flash point	43°C	
Auto-ignition temperature	Not available	
pH	Not applicable	Reason for missing data: the substance/mixture is not soluble (in water)
Kinematic viscosity	Not available	
Solubility	immiscible with water	
Partition coefficient: n-octanol/water	Not available	
Vapor pressure	Not available	
Density and/or Relative density	0.85 kg/l	
Relative vapor density	Not available	
Characteristics of the particles	Not applicable	

9.2. More information

9.2.1. Information regarding physical hazard classes

Information not available

9.2.2. Other safety features

VOC (Directive 2004/42/EC):	44.59% - 379.00 g/litre
Explosive properties	not explosive
Oxidizing properties	non-oxidizing

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular dangers of reaction with other substances under normal conditions of use.

10.2. Chemical stability

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

10.3. Possibility of dangerous reactions

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

Vapors can form explosive mixtures with air. Contact with strong oxidants (such as peroxides and chromates) may cause a fire hazard. A mixture with nitrates or other strong oxidants (such as chlorates, perchlorates and liquid oxygen) can generate an explosive mass. Sensitivity to heat, friction and shock cannot be assessed in advance.

10.4. Conditions to avoid

Avoid overheating. Avoid the accumulation of electrostatic charges. Avoid any source 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 the hazard classes defined in Regulation (EC) no. 1272/2008

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

Local effects. Product information:

Skin contact. Symptoms: Redness. Repeated exposure may cause dryness or cracking of the skin. Eye contact: Contact with eyes may cause irritation.

Inhalation: Inhalation of vapors may cause drowsiness and dizziness. May 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 may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system depression.

Other adverse effects

Vapor concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headache and dizziness, have an anesthetic effect and cause other effects on the central nervous system. Repeated and/or prolonged skin contact with low viscosity materials can degrease the skin with possible development of irritation and dermatitis. Small quantities of liquid, aspirated into the lungs if swallowed or vomited, can cause chemical pneumonitis or pulmonary edema.

Metabolism, kinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Immediate, delayed and chronic effects resulting from short- and long-term exposures

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no relevant component)
ATE (Oral) of the mixture:	Not classified (no relevant component)
ATE (Dermal) of the mixture:	Not classified (no relevant component)

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

LD50 (Dermal):	> 2000 mg/kg
LD50 (Oral):	> 5000 mg/kg
LC50 (Vapour inhalation):	> 9300 mg/l/4h

Cooked linseed oil

LD50 (Dermal):	> 2000 mg/kg rat
LD50 (Oral):	> 4790 mg/kg rat

Hydrocarbons, C9, aromatics

LD50 (Dermal):	> 2000 mg/kg
LD50 (Oral):	> 2000 mg/kg
LC50 (Vapour inhalation):	> 5 mg/l/4h

Neodecanoic acid, cobalt salt

LD50 (Oral):	1567 mg/kg
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SKIN CORROSION / SKIN IRRITATION

Repeated exposure may cause dryness and cracking of the skin.

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

Repeated exposure may cause dryness and cracking of the skin. Slightly irritating to the skin in case of prolonged exposure.

SERIOUS EYE DAMAGE / EYE IRRITATION

It 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 similar in structure to OECD Guideline 405.

RESPIRATORY OR SKIN SENSITIZATION

May cause an allergic reaction.

Contains:

Neodecanoic acid, cobalt salt

Respiratory sensitization

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

It is assumed that it is not a respiratory sensitiser.

Skin sensitization

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

It is assumed that it is not a skin sensitizer according to OECD 406 guidelines.

MUTAGENICITY ON GERM CELLS

It 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 studied in a range of in-vivo and in-vitro assays. Genetic toxicity: negative. It is assumed not to be a germ cell mutagen. Based on test data for materials of similar structure to OECD guidelines 471 473 474 476 478 479.

CARCINOGENICITY

It 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 carcinogenic. It is assumed that it does not cause cancer. Based on test data for materials similar in structure to OECD Guideline 453.

REPRODUCTION TOXICITY

It does not meet the classification criteria for this hazard class

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

No information available. It is assumed not to be a reproductive toxicant. Based on test data for materials of similar structure to OECD guidelines 414 421 422.

Harmful effects on sexual function and fertility

Information not available

Harmful effects on the development of offspring

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

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

Effects on or through breastfeeding

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

Lactation: It is assumed that it is not harmful to breast-fed infants.

SPECIFIC TARGET ORGAN TOXICITY (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

SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE

It does not meet the classification criteria for this hazard class

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

Repeated Exposure: Expected not to cause damage to organs following prolonged and repeated exposure. Based on test data for materials of similar structure to OECD guidelines 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

DANGER IN CASE OF ASPIRATION

Toxic by 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 about other hazards

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

SECTION 12. Ecological information

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

Use according to good working practices, avoiding dispersing the product into 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 hydrocarbons, n-alkanes, isoalkanes, cyclic, <2% aromatic (EC 919-857-5) : Based on the ecological information below and based on the criteria indicated by the regulations on hazardous substances, this substance is not classified dangerous for the environment.

12.1. Toxicity

C9-C11 hydrocarbons, 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% aromatics) - 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 % aromatics) OECD Guideline 202 - TNO (1992)

Endpoint: Invertebrates - Long term (Daphnia magna)

Result: NOELR (21 days): 0.23 mg/L (reproduction)

Comments: Supporting study (C9-C11 <2 % aromatics) (Q)SAR Modeled data - CONCAWE (2010)

Endpoint: Algae (Pseudokirchnerella subcapitata) Growth inhibition

Result: EC50 (72 h): > 1000 mg/L (Growth); EC50 (72 h): > 1000 mg/L (biomass); NOELR (72 h): 3 mg/L (Cell number); NOELR (72 h): 100 mg/L (Growth)

Comments: Key study (C9-C11 <2 % aromatics) OECD Guideline 201 - SRC (1995)

Endpoint: Fish - Short term (Oncorhynchus mykiss)

Result: LL50 (24h):>1000 mg/L; LL0 (24h):1000 mg/L; LL50 (48h): >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 % aromatics) OECD Guideline 203 - SRC (1995).

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

LC50 - Pisces > 1000 mg/l/96h

EC50 - Crustaceans > 1000 mg/l/48h

EC50 - Algae / Aquatic Plants > 1000 mg/l/72h

Hydrocarbons, C9, aromatics

LC50 - Pisces > 1 mg/l/96h

EC50 - Crustaceans > 10 mg/l/48h

EC50 - Algae / Aquatic Plants > 100 mg/l/72h

Neodecanoic acid, cobalt salt

LC50 - Pisces 1.5 mg/l/96h Oncorhynchus mykiss (rainbow trout)

EC50 - Crustaceans 0.61 mg/l/48h Daphnia magna

EC50 - Algae / Aquatic Plants 144 mg/l/72h Pseudokirchneriella subcapitata

12.2. Persistence and degradability

C9-C11 hydrocarbons, n-alkanes, isoalkanes, cyclic, <2% aromatic (EC 919-857-5):

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 : Key study Reliable without restrictions (C9-C11, <2% aromatics)

Source : Shell (1997).

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

Inherently degradable

Hydrocarbons, C9, aromatics

Rapidly degradable

Cooked linseed oil

Rapidly degradable

(according to OECD criteria)

12.3. Bioaccumulative potential

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

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

Cooked linseed oil

Partition coefficient: n-octanol/water > 6 Kow

12.4. Mobility in soil

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

UVCB.

Cooked linseed oil

Partition coefficient: soil/water > 4.96 l/kg

12.5. Results of PBT and vPvB assessment

C9-C11 hydrocarbons, n-alkanes, isoalkanes, cyclic, <2% aromatic (EC 919-857-5): Comparison with the criteria of Annex XIII of the REACH Regulation Evaluation of persistence: some hydrocarbon structures contained in this substance present characteristics of P (Persistent) or vP (very Persistent).

Evaluation of bioaccumulation potential: the structure of most of the hydrocarbons contained in this substance DOES NOT present characteristics of vB (very Bioaccumulative) however some components have characteristics of B (Bioaccumulative).

Toxicity assessment: For hydrocarbon structures that showed P and B characteristics, toxicity was assessed but no relevant component meets the toxicity criteria with the exception of anthracene which has been confirmed as a PBT. Because anthracene is not present, the product is not considered PBT/vPvB.

Based on available data, the product does not contain PBT or vPvB substances in percentages $\geq 0.1\%$.

12.6. Endocrine disrupting properties

C9-C11 hydrocarbons, n-alkanes, isoalkanes, cyclic, <2% aromatic (EC 919-857-5): Dispersion into the environment may lead to contamination of environmental matrices

(air, soil, subsoil, surface and groundwater). Use according to good working practice, avoiding dispersing the products into the environment

Based on available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors 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 if possible. Product residues are to be considered hazardous special waste. The dangerousness of waste that partly contains this product must be assessed based on current legislative provisions.

Disposal must be entrusted to a company authorized to manage waste, in compliance with national and possibly local regulations. Transport of waste may be subject to ADR.

CONTAMINATED PACKAGING

Contaminated packaging must be sent for recovery or disposal in compliance with national waste management regulations.

SECTION 14. Transportation Information

14.1. UN number or ID number

ADR/RID, IMDG, 1263
IATA:

14.2. Official UN shipping name

ADR / RID: PAINTS or PAINT-LIKE MATERIALS (including paints, lacquers, enamels, stains, shellacs, varnishes, polishes, liquid fillers and liquid lacquer bases) or PAINT-LIKE MATERIALS (including solvents and paint thinners)

IMDG: PAINT or PAINT RELATED MATERIAL (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)

IATA: PAINT or PAINT RELATED MATERIAL (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)

14.3. Transport hazard classes

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3



14.4. Packing group

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ADR/RID, IMDG, III
IATA:**14.5. Dangers for the environment**ADR / RID: NO
IMDG: NO
IATA: NO**14.6. Special precautions for users**

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	Special Provision:- EMS: FE, <u>SE</u>	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 in accordance with IMO acts

Information not relevant

SECTION 15. Regulatory information**15.1. Health, safety and environmental laws and regulations specific to the substance or mixture**

Seveso category - Directive 2012/18/EU: P5c

Restrictions relating to the product or substances contained according to Annex XVII Regulation (EC) 1907/2006Product Point 3 - 40Regulation (EU) 2019/1148 - relating to the placing on the market and use of explosives precursors

Not applicable

Substances in Candidate List (Art. 59 REACH)Based on available data, the product does not contain SVHC substances in percentages $\geq 0.1\%$.Substances subject to authorization (Annex XIV REACH)

None

Substances subject to export notification requirements Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Sanitary checks

Workers exposed to this chemical agent dangerous to health must be subjected to health surveillance carried out in accordance with the provisions of the art. 41 of Legislative Decree 81 of 9 April 2008 unless the risk to the safety and health of the worker has been assessed as irrelevant, in accordance with the provisions of art. 224 paragraph 2.

VOC (Directive 2004/42/EC):

Wood stains that form a film of minimum thickness.

15.2. Chemical safety assessment

A chemical safety assessment has been developed for the following substances contained in the mixture:

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

Hydrocarbons, C9, aromatics

SECTION 16. Other information

Text of the hazard statements (H) mentioned in sections 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
Wait. Tox. 1	Aspiration hazard, category 1
STOT IF 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H226	Flammable liquid and vapour.
H302	Harmful if ingested.
H372	Causes damage to organs through prolonged or repeated exposure.
H304	It can be lethal if ingested and enters the respiratory tract.
H335	May irritate the respiratory tract.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic organisms with long lasting effects.
EUH066	Repeated exposure may cause dryness or cracking of the skin.

LEGEND:

- ADR: European Agreement for the transport of dangerous goods by road
- CAS: Chemical Abstract Service Number
- CE: Identification number in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived no-effect level
- EC50: Concentration that gives effect to 50% of the population subject to testing
- EmS: Emergency Schedule
- GHS: Globally Harmonized System for the Classification and Labeling of Chemical Products
- IATA DGR: Regulations for the transport of dangerous goods of the International Air Transport Association
- IC50: Immobilization concentration of 50% of the population subject to testing
- IMDG: International Maritime Code for the Transport of Dangerous Goods
- IMO: International Maritime Organization
- INDEX: Identification number in Annex VI of CLP
- LC50: Lethal concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational exposure level
- PBT: Persistent, bioaccumulating and toxic according to REACH
- PEC: Predictable environmental concentration
- PEL: Predictable level of exposure
- PNEC: Predictable no-effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulations for the international transport of dangerous goods by train
- STA: Acute Toxicity Estimate
- TLV: Threshold limit value
- TLV CEILING: Concentration that must not be exceeded during any moment of occupational exposure.
- TWA: Weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic compound
- vPvB: Very persistent and very bioaccumulating according to REACH
- WGK: Aquatic hazard class (Germany).

GENERAL BIBLIOGRAPHY:

1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
 2. Regulation (EC) 1272/2008 of the European Parliament (CLP)
 3. Regulation (EU) 2020/878 (Annex II of the REACH Regulation)
 4. Regulation (EC) 790/2009 of the European Parliament (I Atp. CLP)
 5. Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)
 6. Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
 7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
 8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
 9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
 10. Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)
 11. Regulation (EU) 2016/918 of the European Parliament (VIII Atp. CLP)
 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
 13. Regulation (EU) 2017/776 (X Atp. CLP)
 14. Regulation (EU) 2018/669 (XI Atp. CLP)
 15. Regulation (EU) 2019/521 (XII Atp. CLP)
 16. Delegated Regulation (EU) 2018/1480 (XIII Atp. CLP)
 17. Regulation (EU) 2019/1148
 18. Delegated Regulation (EU) 2020/217 (XIV Atp. CLP)
 19. Delegated Regulation (EU) 2020/1182 (XV Atp. CLP)
 20. Delegated Regulation (EU) 2021/643 (XVI Atp. CLP)
 21. Delegated Regulation (EU) 2021/849 (XVII Atp. CLP)
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - NI Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - IFA GESTIS website
 - ECHA Agency website
 - Database of SDS models of chemical substances - Ministry of Health and Istituto Superiore di Sanità

Note for the user:

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The information contained in this sheet is based on the knowledge available to us at the date of the latest version. The user must ensure the suitability and completeness of the information in relation to the specific use of the product.

This document should not be interpreted as a guarantee of any specific property of the product.

Since the use of the product does not fall under our direct control, it is the user's obligation to observe the laws and regulations in force regarding hygiene and safety under his own responsibility. We do not assume responsibility for improper use.

Provide adequate training to personnel assigned to the use of chemical products.

CLASSIFICATION CALCULATION METHODS

Chemical-physical hazards: The classification of the product was derived from the criteria established by the CLP Regulation Annex I Part 2. The methods of evaluation of the chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on the calculation methods in Annex I of CLP Part 3, unless otherwise indicated in section 11.

Environmental hazards: The classification of the product is based on the calculation methods set out in Annex I of CLP Part 4, unless otherwise indicated in section 12.

Changes compared to the previous revision

Changes have been made to the following sections:

02 / 03 / 08 / 10 / 11 / 12 / 15 / 16.