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:	**0030455**
Product name	**DILUOIL**
Chemical name and synonym	**DILUOIL**

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

Sector of use	**SU22 - Professional uses - SU21 Consumer uses**
Product category	**PC09a - Products for coatings and paints, thinners and pickling solutions**
Uses advised against. Avoid use:	**which involves applications in non-ventilated indoor environments without the aid of PPE.**
Description / Use	**Mixture based on de-aromatized white spirit**

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)** **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** **0573959848 h8.30-13 h14-18 o 3357267921** **Numero telefonico di Centri Antiveleni attivi 24/24 ore** **IRCSS Fondazione Maugeri –** **Pavia 0039-0382-24444** **CAV Ospedali Riuniti –** **Bergamo 0039-800-883300** **CAV Ospedale Niguarda Ca` Granda –** **Milano 0039-02-66101029** **CAV Ospedale Careggi- Firenze 0039-055-7947819** **CAV Policlinico Gemelli –** **Roma 0039-06-3054343** **CAV Policlinico Umberto I –** **Roma 0039-06 49978000** **CAV Ospedale Cardarelli –** **Napoli 0039-081 5453333** **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.

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, cyclics, <2% aromatics "

Product not intended for uses provided for by Directive 2004/42/EC.

2.3. Other hazards

In some circumstances, the product can accumulate electrostatic charges in large quantities, with the risk of discharges that can lead to fires or explosions.
Vapors are heavier than air and can accumulate in confined spaces.
There is a risk of thermal burns in case of direct contact with the skin or eyes, when the product is handled at a high temperature.

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, cyclics, <2% aromatics "		
CAS -	50 ≤ x < 100	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		
Bis(2-ethylsyl) adipato		
CAS 103-23-1	1 ≤ x < 3	
EC 203-090-1		
INDEX -		
2-Etilantrachinone		
CAS 84-51-5	0 < x < 0,01	Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336, EUH066
CE 201-535-4		
INDEX -		

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. Remove contact lenses, if any, if the situation allows you to do this easily. Continue rinsing. Consult a physician 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 subsides. 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 the hospital. Do not wait for symptoms to appear.

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

INGESTION: do not induce vomiting to avoid the risk of aspiration. Immediately transport the injured person to the hospital. Do not wait for symptoms to appear. In case of spontaneous vomiting, keep the head down to avoid the risk of aspiration of the vomit into the lungs.

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

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
Contact with eyes can cause irritation. Skin contact: redness. Repeated exposure may cause skin dryness or cracking. Inhalation: headache, dizziness, drowsiness, nausea and other central nervous system effects. Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. It can 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, cyclics, <2% aromatics "
If accidentally ingested, the product can enter the lungs due to its low viscosity and cause the rapid development of severe lung lesions (keep under medical supervision for 48 hours).
Notes to physician: Treat symptomatically.

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

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

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics "
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. Make sure that adequate housekeeping measures are in place. Contaminated material must not accumulate in the workplace and must never be kept in a 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.

7.2. Conditions for safe storage, including any incompatibilities

Keep only in the original container. Store in a cool and well-ventilated place, away from heat sources, open flames, sparks and other sources of ignition. Keep containers away from any incompatible materials, checking section 10.
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 must comply with the relevant legislation in the European, national or local context. 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 of the internal structure of the storage tanks must be carried out by qualified and properly equipped personnel, as established by national, local or company regulations. Before accessing the storage tanks and starting any type of intervention in a confined space, carry out an adequate remediation, check the atmosphere and check the oxygen content and the degree of flammability. Keep separate from oxidizing agents. Suitable Materials: Use mild steel or stainless steel for containers and linings. For the construction of containers or internal linings, use approved material suitable for the use of the product. Some synthetic materials may not be suitable for containers or linings based on the characteristics of the material and the intended uses. Check the compatibility of 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 tightly closed and properly labeled. Empty containers may contain flammable product residues, which can cause a fire or explosion hazard. Open slowly to control any pressure releases. Do not weld, braze, drill, cut or incinerate empty containers unless they have been properly cleaned.

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:

RCP TLV	ACGIH TLVs and BEIs – Appendix H

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

Threshold Limit Value

Type	Status	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

Bis(2-ethylsyl) adipato

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0032	mg/l
Normal value in marine water	0,0032	mg/l
Normal value for fresh water sediment	15,6	mg/kg/d
Normal value for water, intermittent release	0,0032	mg/l
Normal value of STP microorganisms	35	mg/l
Normal value for the terrestrial compartment	0,865	mg/kg/d

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				1,3 mg/kg bw/d				
Inhalation				4,4 mg/m3				17,8 mg/m3
Skin				13 mg/kg bw/d				25,5 mg/kg bw/d

2-Etilantrachinone

Threshold Limit Value

Type	Status	TWA/8h	
		mg/m3	ppm
RCP TLV		10	197

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 (ref. Standard EN 374).
For the final choice of the material of the work gloves it is necessary to consider: compatibility, degradation, breakage time and permeation.
In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as it is not foreseeable. Gloves they have a wear time that depends on the duration and mode of use.
Presumably suitable glove materials: nitrile, PVC or PVA (polyvinyl alcohol) with a chemical protection index of at least 5 (permeation> 240 minutes). Use gloves in compliance with the conditions and limits set by the manufacturer. If necessary, refer to the UNI EN standard 374. Gloves should be periodically inspected and replaced in case of wear, perforation or contamination.

SKIN PROTECTION
Wear category I professional long-sleeved work clothes and safety footwear (ref. Directive 89/686 / EEC and EN ISO standard 20344). Wash with soap and water after removing protective clothing.
Evaluate the advisability of providing antistatic clothing in case the work environment presents a risk of explosivity.
When handling the product, use antistatic work clothes with long sleeves, in relation to the risks associated with the classification of the areas of work, if necessary, heat-resistant and thermally insulated.
In case of contamination of clothing, replace and clean them immediately.
Evaluate the advisability of providing antistatic clothing in case the work environment presents a risk of explosivity.
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
Emissions from manufacturing processes, including those from ventilation equipment should be controlled for regulatory compliance of environmental protection.
Do not release into the environment. Storage facilities must be equipped with appropriate systems to prevent contamination of the soil and water in case of leaks or spills. Prevent the release of undissolved substances or recover them from wastewater. Do not distribute the sludge generated by the industrial water treatment on natural soils. Sludge generated by industrial water treatment must be incinerated, kept underneath containment or treated. For further details see the attached exposure scenarios.
Other information

Minimize exposure to mists / vapors / aerosols. Before accessing the storage tanks and starting any type of intervention in a space confined, carry out adequate remediation, check the atmosphere and verify the oxygen content and the degree of flammability.
In the attached exposure scenarios, the operational conditions and management measures that allow for the control of health and safety risks are reported
the environment associated with the identified uses of the substance, relative to the hazard characteristics described in section 2.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	colourless	
Odour	characteristic	
Melting point / freezing point	< -20 °C	
Initial boiling point	145 °C	
Flammability	not applicable	
Lower explosive limit	1,16 % (v/v)	
Upper explosive limit	6 % (v/v)	
Flash point	> 38 °C	
Auto-ignition temperature	> 220 °C	
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	2,24 KPa	Temperature: 37,8 °C
Density and/or relative density	0,77 - 0,79 kg/l	Temperature: 15 °C
Relative vapour density	> 1 (air = 1) @ 101 kPa - referred to the main component	
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 2010/75/EU)	98,50 %	-	768,26	g/litre
VOC (volatile carbon)	96,53 %	-	752,90	g/litre
Explosive properties	Not explosive			
Oxidising properties	Not oxidising			

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Vapors 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) 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.
Keep separate from oxidizing agents. Keep away from heat / sparks / open flames / hot surfaces. Not smoking. Avoid the formation of electrostatic charges.

10.5. Incompatible materials

Strong acids. Oxidizing agents.
Keep away from strong oxidants and reducing agents.

10.6. Hazardous decomposition products

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

SECTION 11. Toxicological information

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

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

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, cyclics, <2% aromatics "

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

Bis(2-ethylsyl) adipato

LD50 (Oral):	24600 mg/kg ratto
LC50 (Inhalation vapours):	> 5,7 mg/l/4h ratto

2-ethylanthraquinone

LD50 (Oral) 2795 mg / kg Rat

LD50 (Dermal)> 20000 mg / kg Rabbit

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

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

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

Bis(2-ethylsyl) adipato

Method: Read-across with similar substances or surrogates. Result: non-irritating.

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

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

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

Bis(2-ethylsyl) adipato

Method: Read-across with similar substances or surrogates. Result: non-irritating.

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

Respiratory sensitization

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

Not assumed to be a respiratory sensitizer.

Bis(2-ethylsyl) adipato

Method: Read-across with similar substances or surrogates. Result: non-irritating.

Skin sensitization

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

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

Bis(2-etilesil) adipato

Method: Draize test. Intracutaneus test. Induction: intradermal. Challenge: intradermal. Guinea pig male. Method: Mallette and von Haam, 1952. Induction: no data challenge: no data. Rabbit. Method: structure-activity relationship models (QSAR) Result: non-sensitizing (weight of evidence).

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <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.

Bis(2-etilesil) adipato

Based on the studies carried out on the mutagenic potential, the substance appears to have negative genetic toxicity.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <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.

Bis(2-etilesil) adipato

NOAEL (carcinogenicity):> 25000 ppm (nominal) (male / female). Neoplastic effects: no effect.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

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

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.

Adverse effects on sexual function and fertility

Bis(2-etilesil) adipato

Method: equivalent or similar to OECD Guidelaine 415 (one-Generation Reproduction Toxicity Study). Oral: feed. Rat (Wistar) male / female. Results: NOAEL (P): approx. 170 mg / kg bw / day (nominal) (male / female) NOAEL (F1): approx. 170 mg / kg bw / day (nominal) (male / female)

Adverse effects on development of the offspring

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <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.

Method: Equivalent or similar to OECD Guidelaine 414 (Prenatal Developmental Toxicity Study) (used to determine limit dose). Oral: feed. Rat (Wistar) Results: NOAEL (maternal toxicity): ca. 170 mg / kg bw / day (nominal) NOEL (fetotoxicity): 28 mg / kg bw / day (nominal) (male / female)

Effects on or via lactation

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

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

Bis(2-etilesil) adipato

Not available

Target organs

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

Central nervous system.

Route of exposure

Information not available

ASPIRATION HAZARD

Toxic for aspiration

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

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

Bis(2-etilesil) adipato

Not relevant

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, cyclics, <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 water courses or sewers or if it has contaminated the ground or vegetation. Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (EC 919-857-5): Based on the ecological information below and according to the criteria indicated by the regulations on dangerous substances, this substance is not classified dangerous for the environment.

12.1. Toxicity

C9-C11 hydrocarbons, n-alkanes, isoalkanes, cyclics, <2% aromatics (EC 919-857-5):
Below is a summary of the most representative studies in 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 (Number of cells); 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 (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% aromatics) OECD Guideline 203 - SRC (1995).

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <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

Bis(2-etilesil) adipato

LC50 - for Fish	> 0,78 mg/l/96h oncorhynchus mykiss
EC50 - for Crustacea	> 500 mg/l/48h daphnia magna
EC50 - for Algae / Aquatic Plants	> 500 mg/l/72h algae
Chronic NOEC for Crustacea	0,77 mg/l daphnia magna, acqua dolce, semistatico. OECD Guideline 211

12.2. Persistence and degradability

C9-C11 hydrocarbons, n-alkanes, isoalkanes, cyclics, <2% aromatics (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 inherently considered 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, cyclics, <2% aromatics "
Inherently degradable

Bis (2-ethylhexyl) adipate
Quickly degradable

12.3. Bioaccumulative potential

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

Bis (2-ethylhexyl) adipate

BCF	27 l/kg

12.4. Mobility in soil

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

Bis (2-ethylhexyl) adipate

Partition coefficient: soil/water	4,687 l/kg

12.5. Results of PBT and vPvB assessment

C9-C11 hydrocarbons, n-alkanes, isoalkanes, cyclics, <2% aromatics (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 the bioaccumulation potential: the structure of most of the hydrocarbons contained in this substance DO NOT show characteristics of vB (very Bioaccumulative) however some components have characteristics of B (Bioaccumulative).
Toxicity Assessment: For hydrocarbon structures showing P and B characteristics, toxicity was assessed but none
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.
On the basis of available data, the product does not contain PBT or vPvB substances in percentage ≥ 0.1%.

12.6. Endocrine disrupting properties

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (EC 919-857-5): The dispersion into the environment can lead to the contamination of environmental matrices (air, soil, subsoil, surface and underground waters) . Use according to good working practice, avoiding to disperse the products in the environment
Based on the 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, 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:	3295

14.2. UN proper shipping name

ADR / RID:	HYDROCARBONS, LIQUID, N.O.S. . (Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics)
IMDG:	HYDROCARBONS, LIQUID, N.O.S. . (Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics)
IATA:	HYDROCARBONS, LIQUID, N.O.S. . (Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics)

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-D	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Pass.:	Maximum quantity: 60 L	Packaging instructions: 355
	Special provision:	A3, A324	

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

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 subjected to health surveillance carried out in accordance with the provisions of 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.

15.2. Chemical safety assessment

A chemical safety assessment has been carried out for the following contained substances:
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <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
Asp. Tox. 1	Aspiration hazard, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
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.

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
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
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 (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)

20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- 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.