

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

### 1.1 Product identifier

**Product name** : FLUIDE LDS  
**Product code** : 30459  
**Product description** : Not available.  
**Product type** : Liquid.  
**Other means of identification** : Not available.

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

#### Identified uses

Transmission fluids  
General use of lubricants and greases in vehicles or machinery - Industrial  
General use of lubricants and greases in vehicles or machinery - Professional  
Formulation additives, lubricants and greases - Industrial

#### Uses advised against

Not applicable.

### 1.3 Details of the supplier of the safety data sheet

TotalEnergies Lubrifiants  
562 Avenue du Parc de L'île  
92029 Nanterre Cedex FRANCE  
Tél: +33 (0)1 41 35 40 00  
Fax: +33 (0)1 41 35 84 71  
m.msds-lubs@totalenergies.com

TotalEnergies Marketing UK Limited  
183 Eversholt St, Kings Cross  
London, NW1 1BU  
UNITED KINGDOM  
Tel: +44 (0)20 7339 8000  
Fax: +44 (0)20 7339 8033  
m.gb-msds@totalenergies.com

H.S.E

### 1.4 Emergency telephone number

#### National advisory body/Poison Centre

**Telephone number** : National Poisons Information Service (NPIS): 111

#### Supplier

**Telephone number** : Emergency telephone: +44 1235 239670

**Hours of operation** : Edit the content of sentence <GB Telephone Number - Supplier - Hours of operation> to define this output

**Information limitations** : Edit the content of sentence <GB Telephone Number - Supplier - Information limitations> to define this output

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Product definition** : Mixture**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Acute Tox. 4, H332

Asp. Tox. 1, H304

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

**Ingredients of unknown toxicity** : 5.3 percent of the mixture consists of component(s) of unknown acute inhalation toxicity

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

**2.2 Label elements****Hazard pictograms** :**Signal word** : Danger**Hazard statements** : H304 - May be fatal if swallowed and enters airways.  
H332 - Harmful if inhaled.**Precautionary statements**

- General** : P101 - If medical advice is needed, have product container or label at hand.  
P102 - Keep out of reach of children.  
P103 - Read carefully and follow all instructions.
- Prevention** : P271 - Use only outdoors or in a well-ventilated area.
- Response** : P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P331 - Do NOT induce vomiting.
- Storage** : P405 - Store locked up.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Contains** : Hydrogenated dimerization products of 1-decene and reaction products of 1-decene, hydrogenated  
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene  
reaction mass of: branched icosane; branched docosane; branched tetracosane  
Distillates (petroleum), hydrotreated middle

**Supplemental label elements** : Contains methyl methacrylate. May produce an allergic reaction.**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.**2.3 Other hazards**

**SECTION 2: Hazards identification**

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB in a concentration  $\geq 0,1\%$ .

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

**Other hazards which do not result in classification**

: Hazard of slipping on spilt product.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures**

: Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Hydrogenated dimerization products of 1-decene and reaction products of 1-decene, hydrogenated	REACH #: 01-2119537268-33 EC: 931-652-2	$\geq 25 - \leq 50$	Acute Tox. 4, H332 Asp. Tox. 1, H304	[1]
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene	REACH #: 01-2119411393-49 EC: 700-308-1	$\geq 25 - \leq 48$	Acute Tox. 4, H332 Asp. Tox. 1, H304	[1]
reaction mass of: branched icosane; branched docosane; branched tetracosane	CAS: 151006-58-5 Index: 601-070-00-0	$\geq 10 - \leq 25$	Acute Tox. 4, H332	[1]
Distillates (petroleum), hydrotreated middle	EC: 265-148-2 CAS: 64742-46-7	$\leq 10$	Asp. Tox. 1, H304	[1]
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	REACH #: 01-2119510877-33 EC: 620-540-6 CAS: 1218787-32-6	$< 0.25$	Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)	[1]
methyl methacrylate	REACH #: 01-2119452498-28 EC: 201-297-1 CAS: 80-62-6 Index: 607-035-00-6	$\leq 0.3$	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	[1] [2]
naphthalene	EC: 202-049-5 CAS: 91-20-3 Index: 601-052-00-2	$< 0.1$	Acute Tox. 4, H302 Carc. 2, H351 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) <b>See Section 16 for the full text of the H statements declared above.</b>	[1] [2]

**Additional information**

: Mineral oil of petroleum origin Product containing mineral oil with less than 3% DMSO extract as measured by IP 346 The product is made from synthetic base oils

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

**SECTION 3: Composition/information on ingredients**Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. The exposed person may need to be kept under medical surveillance for 48 hours.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**4.2 Most important symptoms and effects, both acute and delayed**Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
dryness  
cracking
- Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**SECTION 4: First aid measures**

**Specific treatments** : No specific treatment.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

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

**Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous combustion products** : carbon monoxide  
carbon dioxide  
Silicon Dioxide  
nitrogen oxides  
phosphorus oxides  
sulfur oxides  
Hydrogen sulfide  
Mercaptans

**5.3 Advice for firefighters**

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions**

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**6.3 Methods and material for containment and cleaning up**

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.



## SECTION 6: Accidental release measures

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

**SECTION 8: Exposure controls/personal protection**

Product/substance	Exposure limit values
Methyl methacrylate	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> STEL: 416 mg/m <sup>3</sup> 15 minutes. STEL: 100 ppm 15 minutes. TWA: 208 mg/m <sup>3</sup> 8 hours. TWA: 50 ppm 8 hours.
naphthalene	<b>EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values</b> TWA: 10 ppm 8 hours. TWA: 50 mg/m <sup>3</sup> 8 hours.

**Reportable hazardous constituent(s) contained in UVCB- and/or multi-constituent substance(s) complying with the classification criteria and/or with an exposure limit (OEL)**

No exposure limit value known.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Advisory OEL** : Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m<sup>3</sup>, NIOSH (REL) TWA 5 mg/m<sup>3</sup>, STEL 10 mg/m<sup>3</sup>, ACGIH (TLV) TWA 5 mg/m<sup>3</sup> (highly refined)

**DNELs/DMELs**

Product/substance	Type	Exposure	Value	Population	Effects
Hydrogenated dimerization products of 1-decene and reaction products of 1-decene,hydrogenated	DNEL	Short term Inhalation	60 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	50 mg/m <sup>3</sup>	General population	Systemic
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene	DNEL	Short term Inhalation	22.9 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	3.9 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	3.9 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	16.8 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Inhalation	3.9 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	50 mg/m <sup>3</sup>	General population	Systemic
reaction mass of: branched icosane; branched docosane; branched tetracosane	DNEL	Short term Inhalation	60 mg/m <sup>3</sup>	Workers	Systemic
Distillates (petroleum), hydrotreated middle	DNEL	Long term Dermal	2.9 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	16 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	5000 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	1.3 mg/kg bw/day	General population	Systemic



## SECTION 8: Exposure controls/personal protection

2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	DNEL	Long term Inhalation	4.8 mg/m <sup>3</sup>	General population	Systemic	
	DNEL	Short term Inhalation	3000 mg/m <sup>3</sup>	General population	Systemic	
	DNEL	Long term Oral	1.25 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	1.25 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	2.91 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Inhalation	4.85 mg/m <sup>3</sup>	General population	Systemic	
	DNEL	Long term Inhalation	16.4 mg/m <sup>3</sup>	Workers	Systemic	
	DNEL	Short term Inhalation	3001.6 mg/m <sup>3</sup>	General population	Systemic	
	DNEL	Short term Inhalation	5002.67 mg/m <sup>3</sup>	Workers	Systemic	
	DNEL	Long term Oral	0.214 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	0.214 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	0.3 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Inhalation	0.745 mg/m <sup>3</sup>	General population	Systemic	
	DNEL	Long term Inhalation	2.112 mg/m <sup>3</sup>	Workers	Systemic	
	methyl methacrylate	DNEL	Long term Dermal	8.2 mg/kg bw/day	General population	Systemic
		DNEL	Long term Dermal	13.67 mg/kg bw/day	Workers	Systemic
		DNEL	Long term Inhalation	74.3 mg/m <sup>3</sup>	General population	Systemic
		DNEL	Long term Inhalation	104 mg/m <sup>3</sup>	General population	Local
		DNEL	Long term Inhalation	208 mg/m <sup>3</sup>	Workers	Local
		DNEL	Long term Inhalation	208 mg/m <sup>3</sup>	Workers	Systemic
DNEL		Long term Dermal	1.5 mg/cm <sup>2</sup>	Workers	Local	
DNEL		Short term Dermal	1.5 mg/cm <sup>2</sup>	Workers	Local	
DNEL		Long term Dermal	1.5 mg/cm <sup>2</sup>	General population	Local	
DNEL		Short term Dermal	1.5 mg/cm <sup>2</sup>	General population	Local	
DNEL		Short term Dermal	1.5 mg/cm <sup>2</sup>	General population	Local	
DNEL		Long term Dermal	1.5 mg/cm <sup>2</sup>	General population	Local	
DNEL	Short term Dermal	1.5 mg/cm <sup>2</sup>	Workers	Local		
DNEL	Long term Dermal	1.5 mg/cm <sup>2</sup>	Workers	Local		
DNEL	Long term Oral	8.2 mg/kg bw/day	General population	Systemic		
DNEL	Short term Inhalation	208 mg/m <sup>3</sup>	General population	Local		
DNEL	Short term	416 mg/m <sup>3</sup>	Workers	Local		



**SECTION 8: Exposure controls/personal protection**

naphthalene	DNEL	Inhalation Long term Dermal	3.57 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	25 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	25 mg/m <sup>3</sup>	Workers	Systemic

**PNECs**

Product/substance	Compartment Detail	Value	Method Detail
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	Fresh water	0.000214 mg/l	-
	Marine water	0.0000214 mg/l	-
	Fresh water sediment	1.692 mg/kg dwt	-
	Marine water sediment	0.1692 mg/kg dwt	-
	Soil	5 mg/kg dwt	-
	Sewage Treatment Plant	1.5 mg/l	-
methyl methacrylate	Fresh water	0.94 mg/l	-
	Marine water	0.94 mg/l	-
	Fresh water sediment	5.74 mg/kg dwt	-
	Soil	1.47 mg/kg dwt	-
	Sewage Treatment Plant	10 mg/l	-
	naphthalene	Fresh water	0.0024 mg/l
Marine water		0.0024 mg/l	-
Fresh water sediment		0.0672 mg/kg dwt	-
Marine water sediment		0.0672 mg/kg dwt	-
Soil		0.0533 mg/kg dwt	-
Sewage Treatment Plant		2.9 mg/l	-

**8.2 Exposure controls**

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. EN 166

**Skin protection**

**SECTION 8: Exposure controls/personal protection**

- Hand protection** :  Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Hydrocarbon-proof gloves  
nitrile rubber  
Fluorinated rubber
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- In case of prolonged contact with the product, it is recommended to wear gloves complying with ISO 21420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency
- Body protection** :  Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** :  Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** :  Ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry into confined spaces. In case of inadequate ventilation wear respiratory protection: Type A/P2 Warning ! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses
- Environmental exposure controls** :  Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**SECTION 9: Physical and chemical properties**

The conditions of measurement of all properties are at standard temperature (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

**9.1 Information on basic physical and chemical properties**Appearance

- Physical state** : Liquid. [Clear]
- Colour** : Orange.
- Odour** : Characteristic.
- Odour threshold** : Not available.
- Melting point/freezing point** :  Not applicable.
- Initial boiling point and boiling range** :  300°C (>572°F) [EN ISO 3405]
- Flammability (solid, gas)** :  Not applicable.

**SECTION 9: Physical and chemical properties**

Upper/lower flammability or explosive limits	: Lower: 7% Upper: 9%
Flash point	: Open cup: 150°C (302°F) [ASTM D 92]
Auto-ignition temperature	: 150°C (>302°F) [ASTM E 659]
Decomposition temperature	: Not applicable.
pH	: Not applicable. Product is non-soluble (in water).
Viscosity	: Kinematic (40°C): 17 mm <sup>2</sup> /s [ISO 3104]
Solubility(ies)	:

Media	Result
Water	Not soluble

Solubility in water	: 888 g/l
Miscible with water	: No.
Partition coefficient: n-octanol/ water	: Not applicable.
Vapour pressure	: 0.013 kPa (<0.1 mm Hg) [room temperature] Not applicable. [50°C (122°F)]
Relative density	: 0.817 [ISO 3675]
Density	: 0.817 g/cm <sup>3</sup> [15°C (59°F)] [ISO 3675]
Vapour density	: 2 [Air = 1]
<u>Particle characteristics</u>	
Median particle size	: Not applicable.

## 9.2 Other information

**SECTION 10: Stability and reactivity**

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
10.5 Incompatible materials	: Strong oxidising agents
10.6 Hazardous decomposition products	: Carbon monoxide Carbon dioxide Silicon Dioxide Nitrogen oxides Phosphorus oxides Sulfur oxides Hydrogen sulfide Mercaptans



## SECTION 11: Toxicological information

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

#### Acute toxicity

Product/substance	Result	Species	Dose	Exposure	Test
Hydrogenated dimerization products of 1-decene and reaction products of 1-decene,hydrogenated	LC50 Inhalation Dusts and mists	Rat	1.17 mg/l	4 hours	OECD 403
	LD50 Dermal	Rat	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 423 Acute Oral toxicity - Acute Toxic Class Method OECD 403
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene	LC50 Inhalation Dusts and mists	Rat	1.4 mg/l	4 hours	OECD 403
	LD50 Dermal	Rat	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
reaction mass of: branched icosane; branched docosane; branched tetracosane	LC50 Inhalation Dusts and mists	Rat	1.5 mg/l	4 hours	-
	LD50 Dermal	Rat	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>2000 mg/kg	-	OECD 420
Distillates (petroleum), hydrotreated middle	LC50 Inhalation Dusts and mists	Rat	4.6 mg/l	4 hours	OECD 403
	LD50 Dermal	Rabbit	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	LD50 Oral	Rat - Female	1200 mg/kg	-	OECD 401
	LC50 Inhalation Vapour	Rat	29.8 mg/l	4 hours	-
	LD50 Dermal	Rabbit	>5 g/kg	-	OECD 402
methyl methacrylate	LD50 Oral	Rat	7872 mg/kg	-	-
	LD50 Dermal	Rat	>2500 mg/kg	-	-
	LD50 Oral	Rat	500 mg/kg	-	-
	ATE value		Category 4		
naphthalene	LD50 Oral	Rat			
	LD50 Dermal	Rat			
	LD50 Oral	Rat			
	LD50 Dermal	Rat			

**Conclusion/Summary** : Based on available data, the classification criteria are met.

#### Acute toxicity estimates

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
FLUIDE LDS	N/A	N/A	N/A	N/A	1.6
Hydrogenated dimerization products of 1-decene and reaction products of 1-decene,hydrogenated	N/A	N/A	N/A	N/A	1.17
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene	N/A	N/A	N/A	N/A	1.4
reaction mass of: branched icosane; branched docosane; branched tetracosane	N/A	N/A	N/A	N/A	1.5
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	1200	N/A	N/A	N/A	N/A

**SECTION 11: Toxicological information**

methyl methacrylate	7872	N/A	N/A	29.8	N/A
naphthalene	500	N/A	N/A	N/A	N/A

**Irritation/Corrosion**

Product/substance	Result	Species	Score	Exposure	Test
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	Skin - Oedema	Rabbit	3.67	4 hours	OECD 404
	Skin - Erythema/Eschar	Rabbit	2.67	4 hours	OECD 404
methyl methacrylate	Skin - Irritant	Rabbit	-	4 hours	-
naphthalene	Skin - Mild irritant	Rabbit	-	495 mg	-

**Conclusion/Summary**

**Skin** : Based on available data, the classification criteria are not met.

**Eyes** : Based on available data, the classification criteria are not met.

**Respiratory** : Based on available data, the classification criteria are not met.

**Sensitisation**

Product/substance	Route of exposure	Species	Result
methyl methacrylate	skin	Mouse	Sensitising

**Conclusion/Summary**

**Skin** : Based on available data, the classification criteria are not met. Contains sensitiser. May produce an allergic reaction.

**Respiratory** : Based on available data, the classification criteria are not met.

**Mutagenicity**

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**Carcinogenicity**

Product/substance	Result	Species	Dose	Exposure
naphthalene	Positive - Inhalation - TDLo	Rat	-	105 weeks

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**Reproductive toxicity**

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**Teratogenicity**

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**Specific target organ toxicity (single exposure)**

Product/substance	Category	Route of exposure	Target organs
methyl methacrylate	Category 3	-	Respiratory tract irritation

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**Aspiration hazard**

**SECTION 11: Toxicological information**

Product/substance	Result
Hydrogenated dimerization products of 1-decene and reaction products of 1-decene,hydrogenated	ASPIRATION HAZARD - Category 1
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated middle	ASPIRATION HAZARD - Category 1

**Conclusion/Summary** : Based on available data, the classification criteria are met.

**Information on likely routes of exposure** : Not available.

**Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Harmful if inhaled.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : May be fatal if swallowed and enters airways.

**Symptoms related to the physical, chemical and toxicological characteristics**

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
dryness  
cracking
- Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

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

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

**Long term exposure**

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

- Conclusion/Summary** : Not available.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

**11.2 Information on other hazards****11.2.1 Endocrine disrupting properties**

**SECTION 11: Toxicological information**

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

**11.2.2 Other information****SECTION 12: Ecological information****12.1 Toxicity**

Product/substance	Result	Species	Exposure	Test
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene	Acute EC50 1000 mg/l	Algae - Selenastrum capricornutum	72 hours	-
	Acute LC50 5056 mg/l	Daphnia - Americamysis bahia	48 hours	-
	Acute LC50 5003 mg/l	Fish	96 hours	-
	Acute NOEL >5003 mg/l	Fish - Cyprinodon variegatus	96 hours	OECD 203
reaction mass of: branched icosane; branched docosane; branched tetracosane	Chronic NOEC 1001 mg/l	Daphnia	21 days	OECD 211
	Acute EC50 >1000 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours	-
Distillates (petroleum), hydrotreated middle	Acute EC50 151 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute EC50 22 mg/l	Algae	72 hours	OECD 201
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	Acute EC50 68 mg/l	Daphnia	48 hours	OECD 202
	Chronic NOEL 0.163 mg/l	Daphnia	21 days	-
	Chronic NOEL 0.069 mg/l	Fish	14 days	-
	Acute EC50 0.12 mg/l	Algae	72 hours	-
methyl methacrylate	Acute LC50 0.6 mg/l	Fish	96 hours	-
	Chronic NOEC 0.32 mg/l	Daphnia	21 days	-
	Acute EC50 110 mg/l	Algae - Selenastrum capricornutum	72 hours	-
naphthalene	Acute EC50 69 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute LC50 79 mg/l	Fish	96 hours	-
	Chronic NOEC 37 mg/l	Daphnia - Daphnia magna	21 days	-
	Acute EC50 1.09 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute EC50 >20 mg/l	Micro-organism	18 hours	-
	Acute EC50 0.93 mg/l	Micro-organism	30 minutes	-
	Acute LC50 2350 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours	-
	Acute LC50 0.91 mg/l	Fish	96 hours	-
	Acute LC50 213 µg/l Fresh water	Fish - Melanotaenia fluviatilis - Larvae	96 hours	-
	Chronic NOEC 0.5 mg/l Marine water	Crustaceans - Uca pugnax - Adult	3 weeks	-
Chronic NOEC 1.5 mg/l Fresh water	Fish - Oreochromis mossambicus	60 days	-	

**Conclusion/Summary** : Not available.

**12.2 Persistence and degradability**

**SECTION 12: Ecological information****Conclusion/Summary** : Not available.

Product/substance	Aquatic half-life	Photolysis	Biodegradability
Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene	-	-	Readily
Distillates (petroleum), hydrotreated middle	-	-	Readily
methyl methacrylate	-	-	Readily
naphthalene	-	-	Readily

**12.3 Bioaccumulative potential**

Product/substance	LogP <sub>ow</sub>	BCF	Potential
Hydrogenated dimerization products of 1-decene and reaction products of 1-decene, hydrogenated	6.5	-	high
reaction mass of: branched icosane; branched docosane; branched tetracosane	>6.5	-	high
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	3.6	-	low
methyl methacrylate	1.38	2.97	low
naphthalene	3.3	36.5 to 168	low

**12.4 Mobility in soil****Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.**Mobility** : Not available.**Mobility in soil** : Given its physical and chemical characteristics, the product generally shows low soil mobility. The product is insoluble and floats on water. Loss by evaporation is limited.**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Endocrine disrupting properties**

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

**12.7 Other adverse effects** No known significant effects or critical hazards.



**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods****Product**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: 13 02 06\*

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

	ADR/RID	ADN	IMDG	ICAO/IATA
<b>14.1 UN number or ID number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-	-
<b>14.4 Packing group</b>	-	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.	No.

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.



## SECTION 14: Transport information

14.7 Maritime transport in bulk according to IMO instruments : Not available.

## SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
UK (GB) /REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Seveso Directive

This product is not controlled under the Seveso Directive.

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

**SECTION 15: Regulatory information**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

<b>Australia inventory (AIIC)</b>	: Not determined.
<b>Canada inventory</b>	: Not determined.
<b>China inventory (IECSC)</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Europe inventory</b>	: <input checked="" type="checkbox"/> All components are listed or exempted.
<b>Japan inventory</b>	: <b>Japan inventory (CSCL)</b> : At least one component is not listed. <b>Japan inventory (ISHL)</b> : Not determined.
<b>New Zealand Inventory of Chemicals (NZIoC)</b>	: Not determined.
<b>Philippines inventory (PICCS)</b>	: Not determined.
<b>Korea inventory (KECI)</b>	: All components are listed or exempted.
<b>Taiwan Chemical Substances Inventory (TCSI)</b>	: Not determined.
<b>Thailand inventory</b>	: Not determined.
<b>Turkey inventory</b>	: Not determined.
<b>United States inventory (TSCA 8b)</b>	: <input checked="" type="checkbox"/> All components are listed or exempted.
<b>Vietnam inventory</b>	: Not determined.

The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.

**15.2 Chemical safety assessment** :  This product contains substances for which Chemical Safety Assessments are still required.

**SECTION 16: Other information**

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- DMEL = Derived Minimal Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- vPvB = Very Persistent and Very Bioaccumulative
- PNEC = Predicted No Effect Concentration
- LC50 = Median lethal concentration
- LD50 = Median lethal dose
- OEL = Occupational Exposure Limit
- VOC = Volatile Organic Compound
- UVCB Substance of unknown or Variable composition, Complex reaction products or Biological material
- NOEC No Observed Effect Concentration
- QSAR = Quantitative Structure–Activity Relationship

**SECTION 16: Other information****Procedure used to derive the classification**

Classification	Justification
Acute Tox. 4, H332 Asp. Tox. 1, H304	Calculation method Calculation method

**Full text of abbreviated H statements**

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**Full text of classifications**

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Carc. 2	CARCINOGENICITY - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.