



# SAFETY DATA SHEET

Circular no. 32/2017/TT-BCT

## FLUIDMATIC DII MV

SDS #: 089947

### Section 1. Identification

**CAS number** : Not applicable.  
**UN number** : Not regulated.  
**EC number** : Mixture.  
**GHS product identifier** : FLUIDMATIC DII MV

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

##### Identified uses

Automatic transmission fluids

**Supplier's details** : TOTALENERGIES MARKETING VIETNAM COMPANY LIMITED  
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**Emergency telephone number (with hours of operation)** :  
  
Vietnam: +84 28 4458 2388  
Asia-Pacific: +65 3158 1074

### Section 2. Hazard identification

**Classification of the substance or mixture** : AQUATIC TOXICITY (ACUTE) - Category 2  
AQUATIC TOXICITY (CHRONIC) - Category 3

#### GHS label elements

**Signal word** : No signal word.  
**Hazard statements** : Toxic to aquatic life.  
Harmful to aquatic life with long lasting effects.

#### Precautionary statements

**General** : If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use.  
**Prevention** : Avoid release to the environment.  
**Response** : Not applicable.  
**Storage** : Not applicable.  
**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification** : Prolonged or repeated contact may dry skin and cause irritation.



**Additional information** : Mineral oil of petroleum origin. Product containing mineral oil with less than 3% DMSO extract as measured by IP 346

### Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture  
**Other means of identification** : Not available.

Ingredient name	CAS number	% (w/w)
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	≥25 - ≤50
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	≤10
mineral oil	-	≤3
1-(tert-dodecylthio)propan-2-ol	67124-09-8	<1
2,6-di-tert-butyl-p-cresol	128-37-0	≤1
methyl-1H-benzotriazole	29385-43-1	≤0.3
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	1218787-32-6	≤0.22
toluene	108-88-3	≤0.3

**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 and hence require reporting in this section.**

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

### Section 4. First aid measures

#### Description of necessary 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.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 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 recognized 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. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. 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.

#### Most important symptoms/effects, acute and delayed

**Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : No known significant effects or critical hazards.

**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** : No specific data.

**Indication of immediate medical attention and special treatment needed, if necessary**

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

**Section 5. Fire-fighting measures****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.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products** : carbon monoxide  
carbon dioxide  
sulfur oxides  
Hydrogen sulfide  
Mercaptans

**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

### 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized 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".

- Environmental precautions** : Avoid dispersal of spilled 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). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. 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. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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 spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. 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.

- 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. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated light paraffinic	<b>Ministry of Health (Viet Nam, 6/2019). [mineral oil (mist)]</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Mist STEL: 10 mg/m <sup>3</sup> 15 minutes. Form: Mist
Distillates (petroleum), hydrotreated light naphthenic	<b>Ministry of Health (Viet Nam, 6/2019). [mineral oil (mist)]</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Mist STEL: 10 mg/m <sup>3</sup> 15 minutes. Form: Mist
toluene	<b>Ministry of Health (Viet Nam, 6/2019).</b> TWA: 100 mg/m <sup>3</sup> 8 hours. STEL: 300 mg/m <sup>3</sup> 15 minutes.

### Biological exposure indices

No exposure indices known.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- 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.
- 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)

### 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** : In case of contact through splashing: safety glasses with side-shields.
- Skin 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  
Fluorinated rubber  
nitrile 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.



- 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.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## 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

### Appearance

- Physical state** : Liquid.
- Color** : Red.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point** : Not available.
- Flash point** : Open cup: 190°C (374°F) [ASTM D 92]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 0.851 [ASTM D 4052]
- Density** : 0.851 g/cm<sup>3</sup> [15°C] [ASTM D 4052]
- Solubility(ies)** :

Media	Result
cold water	Not soluble
hot water	Not soluble

- Miscible with water** : No.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): 34.5 mm<sup>2</sup>/s (34.5 cSt) [ASTM D 445]
- Flow time (ISO 2431)** : Not available.
- Particle characteristics**
- Median particle size** : Not applicable.

**Section 10. Stability and reactivity**

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: Stable under recommended storage and handling conditions (see Section 7).
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>Incompatible materials</b>	: Strong oxidizing agents
<b>Hazardous decomposition products</b>	: carbon monoxide carbon dioxide sulfur oxides Hydrogen sulfide Mercaptans

**Section 11. Toxicological information****Information on toxicological effects****Acute toxicity**

Product/substance	Result	Species	Dose	Exposure	Test
Distillates (petroleum), hydrotreated light paraffinic	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours	OECD 403
	LD50 Dermal	Rabbit	>5000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 420
Distillates (petroleum), hydrotreated light naphthenic	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours	OECD 403
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
1-(tert-dodecylthio)propan-2-ol	LC50 Inhalation Dusts and mists	Rat	5.1 mg/l	4 hours	-
	LD50 Dermal	Rabbit	2201 mg/kg	-	OECD 434
	LD50 Oral	Rat	5500 mg/kg	-	-
2,6-di-tert-butyl-p-cresol	LD50 Dermal	Rat	>2000 mg/kg	-	-
	LD50 Oral	Rat	>2930 mg/kg	-	-
methyl-1H-benzotriazole	LD50 Dermal	Rabbit - Male, Female	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat	720 mg/kg	-	OECD 401
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	LD50 Oral	Rat - Male, Female	1200 mg/kg	-	OECD 425
	LD50 Oral	Rat - Male, Female	1200 mg/kg	-	OECD 425
toluene	LC50 Inhalation Vapor	Rat - Male	25.7 mg/l	4 hours	-
	LD50 Dermal	Rabbit - Male	12267 g/kg	-	-
	LD50 Oral	Rat - Male	>5000 mg/kg	-	EU B.1 Acute Toxicity (Oral)

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

**Irritation/Corrosion**

Product/substance	Result	Species	Score	Exposure	Test
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol toluene	Skin - Erythema/Eschar	Rabbit	2.67	-	OECD 404
	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Severe irritant	Rabbit	-	870 ug	-
	Skin - Mild irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Moderate irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-

**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.

**Sensitization**

Product/substance	Route of exposure	Species	Result
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	skin	Guinea pig	Not sensitizing

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

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

**Mutagenicity**

Product/substance	Test	Experiment	Result
methyl-1H-benzotriazole	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Negative
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476 Read across	Experiment: In vitro Subject: Mammalian-Animal	Negative

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

**Carcinogenicity**

**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**

Product/substance	Result	Species	Dose	Exposure
methyl-1H-benzotriazole	Positive - Oral	Rat	-	-

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

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



Name	Category	Route of exposure	Target organs
toluene	Category 3	-	Narcotic effects

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

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

Name	Category	Route of exposure	Target organs
toluene	Category 2	inhalation	-

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

**Aspiration hazard**

Name	Result
Distillates (petroleum), hydrotreated light paraffinic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated light naphthenic	ASPIRATION HAZARD - Category 1
mineral oil	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1

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

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

**Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : No known significant effects or critical hazards.

**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** : No specific data.

**Delayed and immediate effects and also 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**



Product/substance	Result	Species	Dose	Exposure
methyl-1H-benzotriazole	Sub-acute NOAEL Oral	Rat - Male, Female	150 mg/kg	-

- General** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/ or dermatitis.
- 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.

## Numerical measures of toxicity

### Acute toxicity estimates

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
1-(tert-dodecylthio)propan-2-ol	5500	2201	N/A	N/A	5.1
methyl-1H-benzotriazole	720	N/A	N/A	N/A	N/A
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	1200	N/A	N/A	N/A	N/A
toluene	N/A	12267000	N/A	25.7	N/A

### Other information

:  
Not available.

## Section 12. Ecological information

Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

### Toxicity

Product/substance	Result	Species	Exposure	Test
Distillates (petroleum), hydrotreated light paraffinic	Acute EC50 >100 mg/l	Algae - <i>Pseudokirchnerella subcapitata</i>	48 hours	OECD 201
	Acute EC50 >10000 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours	OECD 202
	Chronic NOEL 10 mg/l	Daphnia - <i>Daphnia magna</i>	21 days	OECD 211
	Chronic NOEL >1000 mg/l	Fish - <i>Oncorhynchus mykiss</i>	21 days	-
Distillates (petroleum), hydrotreated light naphthenic mineral oil	Acute EC50 >1000 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours	-
	Acute LC50 5001 mg/l	Fish	96 hours	-
	Acute EC50 >100 mg/l	Algae - <i>Scenedesmus quadricauda</i>	72 hours	-
	Acute EC50 >10000 mg/l	Daphnia	48 hours	-
1-(tert-dodecylthio)propan-2-ol	Acute LC50 >100 mg/l	Fish - <i>Pimephales promelas</i>	96 hours	-
	Chronic NOEC >10 mg/l	Daphnia	21 days	-
	Acute EC50 0.58 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours	OECD 202
	Acute LC50 0.75 mg/l	Fish	96 hours	-
2,6-di-tert-butyl-p-cresol	Acute EC50 0.758 mg/l	Algae	72 hours	-
	Acute EC50 0.48 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202
	Acute LC50 0.199 mg/l	Fish	96 hours	-



methyl-1H-benzotriazole	Chronic NOEC 0.069 mg/l	Crustaceans - <i>Daphnia magna</i>	21 days	OECD 211
	Acute EC50 75 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201
	Acute EC50 8.58 mg/l	Crustaceans - <i>Daphnia galatea</i>	48 hours	OECD 202
	Acute LC50 55 mg/l	Fish - <i>Cyprinodon variegatus</i>	96 hours	OECD 203
	Chronic EC10 1.18 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours	OECD 201 201
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	Chronic NOEC 0.4 mg/l	Crustaceans - <i>Daphnia galatea</i>	21 days	OECD 211
	Acute EC50 0.0538 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	-
toluene	Acute EC50 0.043 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours	-
	Acute EC50 167 mg/l	Micro-organism	3 hours	-
	Chronic EC10 0.0107 mg/l	Daphnia - <i>Daphnia magna</i>	21 days	-
	Acute EC50 134 mg/l	Algae - <i>Chlorella vulgaris</i>	3 hours	-
	Acute EC50 3.78 mg/l	Daphnia - <i>Ceriodaphnia dubia</i>	48 hours	-
	Acute EC50 84 mg/l	Micro-organism	24 hours	-
	Acute LC50 5500 µg/l Fresh water	Fish - <i>Oncorhynchus kisutch</i> - Fry	96 hours	-
	Chronic LOEL 2.77 mg/l	Fish - <i>Oncorhynchus kisutch</i>	40 days	-
	Chronic NOEC 10 mg/l	Algae - <i>Skeletonema costatum</i>	72 hours	-
	Chronic NOEC 0.74 mg/l	Daphnia - <i>Ceriodaphnia dubia</i>	7 days	-
Chronic NOEC 1.39 mg/l	Fish - <i>Oncorhynchus kisutch</i>	40 days	-	

**Persistence and degradability**

Product/substance	Test	Result	Dose	Inoculum
methyl-1H-benzotriazole	OECD 301D	4 % - Not readily - 28 days	-	Activated sludge

Product/substance	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated light naphthenic mineral oil	-	-	Not readily
1-(tert-dodecylthio)propan- 2-ol	-	-	Not readily
2,6-di-tert-butyl-p-cresol	-	-	Not readily
methyl-1H-benzotriazole	-	-	Not readily
toluene	-	-	Readily

**Bioaccumulative potential**



Product/substance	LogK <sub>ow</sub>	BCF	Potential
1-(tert-dodecylthio)propan-2-ol	4.7	-	High
2,6-di-tert-butyl-p-cresol	4.17	330 to 1800	High
methyl-1H-benzotriazole	1.1	-	Low
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	3.6	110.2	Low
toluene	2.73	90	Low

**Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : 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.

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

**Section 13. Disposal considerations**

**Disposal methods** : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

**Section 14. Transport information**

	UN	IMDG	ICAO/IATA
<b>UN/ID No</b>	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-
<b>Transport hazard class(es)</b>	-	-	-
<b>Packing group</b>	-	-	-
<b>Environmental hazards</b>	No.	No.	No.

**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.



Transport in bulk according to IMO instruments : Not available.

## Section 15. Regulatory information

[Circular no. 05/1999/TT-BYT](#)

Ingredient name	Category	Notes
Reaction mass of ethylbenzene and xylene toluene	Category 2 Category 2	

Toxic classification (TCVN : 4 3164-79)

### [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 \(PIC\)](#)

Not listed.

#### [UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

### [Inventory list](#)

<a href="#">Australia inventory (AIIIC)</a>	: All components are listed or exempted.
<a href="#">Canada inventory (DSL/NDSL)</a>	: All components are listed or exempted.
<a href="#">China inventory (IECSC)</a>	: All components are listed or exempted.
<a href="#">Europe inventory (EC)</a>	: All components are listed or exempted.
<a href="#">Japan inventory</a>	: <b>Japan inventory (CSCL)</b> : All components are listed or exempted. <b>Japan inventory (ISHL)</b> : All components are listed or exempted.
<a href="#">New Zealand Inventory of Chemicals (NZIoC)</a>	: All components are listed or exempted.
<a href="#">Philippines inventory (PICCS)</a>	: All components are listed or exempted.
<a href="#">Korea inventory (KECI)</a>	: Not determined.
<a href="#">Taiwan Chemical Substances Inventory (TCSI)</a>	: All components are listed or exempted.
<a href="#">Thailand inventory</a>	: Not determined.
<a href="#">Turkey inventory</a>	: Not determined.
<a href="#">United States inventory (TSCA 8b)</a>	: All components are listed or exempted.
<a href="#">Vietnam inventory</a>	: 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.



## Section 16. Other information

### Ratings of danger according to

#### NFPA



#### HMIS

Health	*	2
Flammability		1
Physical hazards		0

### History

**Date of revision** : 2024/05/16  
**previous revision date** : No previous validation  
**Version** : 1

### Key to abbreviations

: ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 HMIS = Hazardous Material Information System (U.S.A.)  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 N/A = Not available  
 NFPA = National Fire Protection Association (U.S.A.)  
 SGG = Segregation Group  
 UN = United Nations

### Procedure used to derive the classification

Classification	Justification
AQUATIC TOXICITY (ACUTE) - Category 2	Calculation method
AQUATIC TOXICITY (CHRONIC) - Category 3	Calculation method

**References** : Not available.

Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.  
 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.