

## Safety Data Sheet acc. to OSHA HCS

Printing date 05/25/2017

Reviewed on 05/25/2017

### 1 Identification

- **Product identifier**
- **Trade name:** **RESIDUE - QUALITY 1**
- **Product Description** terpene hydrocarbon
- **Application of the substance / the mixture** Chemical intermediate
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Manufacturer:  
DRT America LLC  
400 Governor Treutlen Drive  
Rincon, GA 31326  
Supplier:  
Les Dérivés Résiniques & Terpéniques  
30 Rue Gambetta, BP 206  
40105 Dax Cedex  
France
- **Information department:** Regulatory Affairs
- **Emergency telephone number:**  
Within USA and Canada: 1-800-CHEMTREC (424-9300)  
Outside the USA and Canada: 1-703-527-3887

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Asp. Tox. 1      H304 May be fatal if swallowed and enters airways.



GHS09 Environment

Aquatic Acute 1      H400 Very toxic to aquatic life.

Aquatic Chronic 1      H410 Very toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2      H315 Causes skin irritation.

Eye Irrit. 2A      H319 Causes serious eye irritation.

Skin Sens. 1      H317 May cause an allergic skin reaction.

Flam. Liq. 4      H227 Combustible liquid.

- **Label elements**

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms**



GHS07 GHS08 GHS09

· **Signal word** *Danger*

· **Hazard statements**

- H227 Combustible liquid.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H304 May be fatal if swallowed and enters airways.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P234 Keep only in original container.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing mist/vapors/spray.
- P262 Do not get in eyes, on skin, or on clothing.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves / eye protection / face protection.
- P301+P312 IF SWALLOWED: Call a doctor if you feel unwell.
- P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
- P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Information pertaining to particular dangers for man and environment:**

- May cause eye irritation.
- May cause skin irritation.
- May be absorbed through the skin.
- Inhalation of vapor or mist may cause respiratory tract irritation.
- May cause central nervous system depression (dizziness, drowsiness, incoordination).
- POTENTIAL HEALTH EFFECTS**
- Ingestion may cause nausea, vomiting, and gastrointestinal irritation.
- Aspiration may cause lung damage.

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Refer to Section 5 for Hazardous Combustion Products and Section 10 for Hazardous Decomposition/  
Hazardous Polymerization Products.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**  
*The complex residuum from the distillation of sulfate turpentine. It consists predominantly of diterpenes, sesquiterpenes and polyterpenes with some high boiling oxygenated terpenes.*
- **CAS No.:** 68938-00-1
- **CAS No. Description**  
*Terpenes and terpinoids, turpentine-oil residues (sulfate turpentine, distillation residue)*
- **EC number:** 273-108-0

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
*Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.*
- **After inhalation:**  
*Remove to fresh air. Get medical attention if nasal, throat or lung irritation develops. Supply fresh air. If symptoms are experienced, get medical attention. In case of unconsciousness place patient stably in side position for transportation.*
- **After skin contact:**  
*Wash thoroughly with soap and water. Remove contaminated clothing. Get immediate medical attention. Thoroughly wash clothing before reuse. Immediately wash with water and soap and rinse thoroughly.*

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- **After eye contact:**  
*Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get immediate medical attention.  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*
- **After swallowing:**  
*Do NOT induce vomiting. Get immediate medical attention. See Note to Physician.  
Immediately call a doctor.*
- **Information for doctor:**  
*Aspiration into the lungs will result in chemical pneumonitis and may be fatal. Ingestion may cause damage to the esophageal mucosa which would contraindicate insertion of a nasogastric tube. Measures against circulatory shock and respiratory depression may be necessary.*
- **Most important symptoms and effects, both acute and delayed**  
*Pulmonary effects if swallowed accidentally.*
- **Indication of any immediate medical attention and special treatment needed**  
*Do not induce vomiting. Aspiration may cause lung damage.  
If swallowed or in case of vomiting, danger of entering the lungs.  
Medical supervision for at least 48 hours.*

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
*Dry chemical, carbon dioxide or foam may be used on fires involving this product.*
- **For safety reasons unsuitable extinguishing agents:** *If water must be used, use as a spray only.*
- **Special hazards arising from the substance or mixture**  
*During combustion, the following substances may be formed:  
Carbon monoxide (CO)  
Carbon Dioxide (CO<sub>2</sub>)  
Irritating gases  
Aldehydes  
Carboxylic acids*
- **Advice for firefighters**
- **Protective equipment:**  
*Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires involving this product.  
Cool containers with water to prevent rupture.*

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
*Extinguish all sources of ignition. Ventilate area. Wear protective equipment as required (see SDS Section 8). Evacuate area of all personnel.*
- **Environmental precautions:**  
*Do not allow product to reach soil, waterways, drains and sewers.  
Inform the relevant authorities if the product has caused environmental pollution (soil, waterways, drains or sewers).*

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- **Methods and material for containment and cleaning up:**
  - For small spills: Add absorbent, sweep up, and dispose properly.*
  - For large spills: Dike to contain and pump into drums for use or disposal.*
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).*
  - Dispose contaminated material as waste according to item 13.*
  - Ensure adequate ventilation.*
- **Reference to other sections**
  - See Section 7 for information on safe handling.*
  - See Section 8 for information on personal protection equipment.*
  - See Section 13 for disposal information.*
- **Protective Action Criteria for Chemicals**
  - **PAC-1:** Substance is not listed.
  - **PAC-2:** Substance is not listed.
  - **PAC-3:** Substance is not listed.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
  - Flammable. Bond containers during filling or discharge when performed at temperatures at or above the product flash point.*
  - Keep containers closed when not in use.*
  - Ensure good ventilation/exhaustion at the workplace.*
  - Prevent formation of aerosols.*
- **Information about protection against explosions and fires:**
  - Keep away from heat, flame, sparks and other ignition sources.*
  - Spontaneous combustion may occur in materials soaked with this product and exposed to air, as well as soaked vessel and piping insulation.*
  - Avoid storing product near incompatible materials. See SDS Section 10.*
  - Use only non-sparking tools.*
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
  - Store in areas designed for flammable liquid storage (see NFPA 30).*
  - Store in a cool, dry, well-ventilated area.*
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
  - Recommended materials for storage: stainless steel or aluminum containers with specific inner coating.*
  - Certain plastics and elastomers may not be compatible with the product. Test or get manufacturer's recommendation prior to use.*
  - Keep receptacle tightly sealed.*
- **Specific end use(s)** No further relevant information available.

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### 8 Exposure controls/personal protection

· **Additional information about design of technical systems:**

*Eliminate ignition sources and prevent build-up of static electrical charges.*

*Properly discard any item soaked with material, as spontaneous heating may occur.*

*Eyewash fountains and safety showers should be easily accessible.*

*Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.*

*Discharge from the ventilation system should comply with applicable air pollution control regulations.*

*Keep area clean. Product will burn.*

*For good industrial hygiene practice: Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning maintenance or repairs.*

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

138-86-3: dipentene (10-12%)

WEEL Long-term value: 30 ppm

127-91-3: beta-pinene (1-3%)

TLV Long-term value: 112 mg/m<sup>3</sup>, 20 ppm  
(SEN) NIC-DSEN

80-56-8: alpha-pinene (0.5-1.5%)

TLV Long-term value: 112mg/m<sup>3</sup>, 20 ppm  
(SEN) NIC-DSEN

75-18-3: dimethyl sulfide (0.1-1.0%)

TLV Long-term value: 25 mg/m<sup>3</sup>, 10ppm

13466-78-9: delta-3-carene (0.1-0.5%)

TLV Long-term value: 112 mg/m<sup>3</sup>, 20 ppm  
(SEN) NIC-DSEN

624-92-0: dimethyl disulfide (0.05-0.5%)

TLV Long-term value: 2 mg/m<sup>3</sup>, 0.5 ppm  
Skin

74-93-1: methanethiol (0.02-0.2%)

PEL Ceiling limit value: 20 mg/m<sup>3</sup>, 10 ppm

REL Ceiling limit value: 1\* mg/m<sup>3</sup>, 0.5\* ppm \*15-min

TLV Long-term value: 0.98 mg/m<sup>3</sup>, 0.5 ppm

· **Ingredients with biological limit values:** None

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

*Avoid contact with eyes, skin, and clothing.*

*Avoid breathing vapor, fumes or mist.*

*Handle in areas with adequate ventilation.*

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Do not swallow.  
 Avoid contamination of food, beverages, or smoking materials.  
 Wash thoroughly after handling, and before eating, drinking or smoking.  
 Remove contaminated clothing and shoes promptly and clean thoroughly before reuse.  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.

· **Breathing equipment:**

Appropriate respiratory protection is required when exposure to airborne contaminants may exceed acceptable limits. Respirators should be selected and used in accordance with OSHA, Subpart I (29 CFR 1910.134) and manufacturers recommendations.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:** Impervious gloves

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Appropriate protective clothing

**9 Physical and chemical properties**

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Yellow
· <b>Odor:</b>	Turpentine-like
· <b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	200-230 °C (392-446 °F)

· **Flash point:** 65 °C (149 °F) (closed cup)

· **Auto ignition temperature:** Not determined.

· **Danger of explosion:** This substance does not contain any chemical groups associated with explosive properties.

· **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

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· <b>Oxidizing properties</b>	<i>The substance does not contain any chemical groups associated with oxidizing properties.</i>
· <b>Vapor pressure at 20 °C (68 °F):</b>	5.6 kPa
· <b>Density:</b>	Not determined.
· <b>Bulk density:</b>	Not determined
· <b>Relative density at 20 °C (68 °F)</b>	0.919
· <b>Solubility in / Miscibility with Water:</b>	Not soluble or slightly soluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic at 20 °C (68 °F):</b>	4 mPas
<b>Kinematic at 40 °C (104 °F):</b>	<2 mPa.s
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable under recommended handling and storage conditions.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions**  
No hazardous reactions known except those with incompatible materials listed below.
- **Conditions to avoid** Keep away from heat and sources of ignition.
- **Incompatible materials:** Incompatible with: oxidizing agents, acids and acid catalysts
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**  
8000-41-7: Terpeneols (primarily alpha and gamma isomers)  
Oral LD<sub>50</sub>: >2000 mg/kg (rat) OECD 401  
Dermal LD<sub>50</sub>: > 2000 mg/kg (rabbit) OECD 402  
Inhalative LC<sub>50</sub> (4h): >4.76 mg/L (rat) OECD 403
- 87-44-5: Beta-caryophyllene  
Oral LD<sub>50</sub>: >5000 mg/kg (rat)  
Dermal LD<sub>50</sub>: >5000 mg/kg (rabbit)
- 138-86-3: Dipentene  
Oral LD<sub>50</sub>: >2000 mg/kg (rat) OECD 423  
Dermal LD<sub>50</sub>: >5000 mg/kg (rabbit) (d-limonene)

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**586-62-9: Terpinolene**

Oral LD<sub>50</sub>: 3740 mg/kg (rat)  
Dermal LD<sub>50</sub>: >4300 mg/kg (rabbit)

**104-46-1: Anethole**

Oral LD<sub>50</sub>: 2090 mg/kg (rat)  
Dermal LD<sub>50</sub>: >5000 mg/kg (rabbit)

**475-20-7: Longifolene**

Oral LD<sub>50</sub>: >5000 mg/kg (rat)  
Dermal LD<sub>50</sub>: >5000 mg/kg (rabbit)

**127-91-3: Beta-pinene**

Oral LD<sub>50</sub>: >5000 mg/kg (rat)  
Dermal LD<sub>50</sub>: >5000 mg/kg (rabbit)

**99-87-6: Para-cymene**

Oral LD<sub>50</sub>: 4750 mg/kg (rat)  
Dermal LD<sub>50</sub>: >5000 mg/kg (rabbit)

**99-58-4: Gama-terpinene**

Oral LD<sub>50</sub>: 3650 mg/kg (rat)  
Dermal LD<sub>50</sub>: >5000 mg/kg (rabbit)

**80-56-8: Alpha-pinene**

Oral LD<sub>50</sub>: 3700 mg/kg (rat)  
Dermal LD<sub>50</sub>: >5000 mg/kg (rabbit)

**123-35-3: Myrcene**

Oral LD<sub>50</sub>: >5000 mg/kg (rat)  
Dermal LD<sub>50</sub>: >5000 mg/kg (rabbit)

**75-18-3: Dimethyl sulfide**

Oral LD<sub>50</sub>: 3700 mg/kg (rat)  
Dermal LD<sub>50</sub>: >5000 mg/kg (rabbit)  
Inhalative LC<sub>50</sub>: 102 mg/L (rat)

**13466-78-9: Delta-3-carene**

Oral LD<sub>50</sub>: 4800 mg/kg (rat)  
Dermal LD<sub>50</sub>: 5000 mg/kg (rabbit)

**624-92-0: Dimethyl Disulfide**

Oral LD<sub>50</sub>: 290-500 mg/kg (rat)  
Dermal LD<sub>50</sub>: >5000 mg/kg (rabbit)  
Inhalative LC<sub>50</sub>: 5 mg/L (rat)

**74-93-1: Methanethiol**

Inhalative LC<sub>50</sub>: 1.33 mg/L (rat)

No LD<sub>50</sub>/LC<sub>50</sub> data available for sesquiterpenes (other than longifolene or beta-caryophyllene), beta-phellandrene and terpenic oligomers.

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*For the toxicological effects listed below: when product RESIDUE - QUALITY 1 is classified for a specific endpoint, data presented relate to the components responsible for the classification.*

• **Primary irritant effect:**

• **on the skin:**

*The product is classified as a skin irritant due to the presence of the following components: terpeneols, dipentene, beta-pinene, alpha-pinene, myrcene and delta-3-carene.*

*Terpeneols (primarily alpha and gamma isomers) were tested in rabbits and induced skin irritation effects. Moderate irritating effects were observed in rabbits with d-limonene and l-limonene in a primary dermal irritation study performed according to OECD guideline 404. Irritant effects were also observed with alpha-pinene, beta-pinene, myrcene and delta-3-carene in an in vitro skin irritation test on reconstructed human epidermis. Beta-carophyllene, terpinolene, anethole, longifolene, para-cymene and gamma-terpinene cause mild skin irritation. Sesquiterpenes are also considered mild skin irritants by analogy with longifolene. Dimethyl disulfide produced slight irritating effects in a skin irritation study in rabbits.*

• **on the eye:**

*Only reversible effects were observed with two structurally related substances in eye irritation studies in rabbit (OECD 405).*

*Irritating effect.*

• **Sensitization:**

*Skin sensitization effects were observed with structurally related substances in the murine Local Lymph Node Assay (LLNA - OECD 429) and in Guinea Pig Maximisation Test (GPMT - OECD 406).*

*Sensitization possible through skin contact.*

• **Other information (about experimental toxicology):**

**PRODUCT/SIMILAR PRODUCT -**

*Ingestion causes gastric irritation, pain, nausea, vomiting.*

*Inhalation may cause chest pain, bronchitis, dizziness, delirium, ataxia or coma. Aspiration into the lungs will cause chemical pneumonia. Inhalation may cause pulmonary edema or pneumonia. May be absorbed through the skin, lungs, and intestinal tract, resulting in kidney damage, painful urination, respiratory or central nervous system effects. Chronic contact may cause benign skin tumors.*

• **Additional toxicological information:**

**Mutagenicity/genotoxicity:**

*Experimental data are available for terpeneols, beta-caryophyllene, dipentene, terpinolene, anethole, beta-pinene, para-cymene, gamma-terpinene, alpha-pinene, myrcene, dimethyl sulfide, rosin, delta-3-carene, dimethyl disulfide and methanethiol. No mutagenic/genotoxic effects were observed with these components of this substance.*

**Carcinogenicity:**

*Data are available only for d-limonene (one of two isomers) and myrcene.*

**D'limonene (CAS No. 5989-27-5)**

*D-limonene was tested in a 2 year oral carcinogenicity study in mice and rats. This constituent induced a male-rat specific effect on kidneys, not relevant for humans. No increased incidences of other tumors were reported.*

**Myrcene (CAS No. 123-35-3)**

*In a 2 year oral study in mice and rats, increased incidences of benign and malignant tumors were observed. Relevance of these tumors for humans remains questionable.*

*As regards terpeneols, terpinolene and alpha-pinene, they are not expected to be carcinogenic for humans as they did not induce hyperplasia or pre-neoplastic lesions in repeated dose toxicity studies.*

*There is no data on the other constituents of this substance.*

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*Reproductive toxicity:*  
Based on available information, this substance is not considered toxic for reproduction.

- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** 123-35-3
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is listed.

**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:**  
This product is classified as hazardous to the aquatic environment due to the presence of sesquiterpenes, dipentene, terpinolene, longifolene, beta-pinene, gamma-terpinene, alpha-pinene, delta-3-carene, dimethyl disulfide and methanethiol: categories acute 1 and chronic 1 - very toxic to aquatic life with long lasting effects.
- **Persistence and degradability** No ecological studies have been carried out on this product.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not determined.
- **vPvB:** Not determined.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation:**  
Incineration in accordance with applicable regulations is the recommended disposal method. Disposal should be in accordance with applicable Federal, State and local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

- |                                  |   |
|----------------------------------|---|
| · <b>UN-Number</b>               |   |
| · <b>DOT, ADR, IMDG, IATA</b>    | UN3082  |
| · <b>UN proper shipping name</b> |   |
| · <b>DOT</b>                     | Environmentally hazardous substances, liquid, n.o.s. (terpenes)     |
| · <b>ADR</b>                     | 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (terpenes) |

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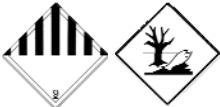
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<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>	<p><b>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (terpenes)</b></p>
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	
	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> </ul>	<p>9 Miscellaneous dangerous substances and articles</p>
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	<p>III</p>
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Special marking (ADR):</b></li> <li>· <b>Special marking (IATA):</b></li> </ul>	<p>Yes (DOT) Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)</p>
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Danger code (Kemler):</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Stowage Category</b></li> </ul>	<p>Warning: Miscellaneous dangerous substances and articles 90 F-A,S-F A</p>
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>	<p>Not applicable.</p>
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> <li>· <b>DOT</b></li> <li>· <b>Remarks:</b></li> </ul>	<p>Special marking with the symbol (fish and tree).</p>
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	<p>UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (terpenes), 9, III</p>

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):**  
CAS No. 74-93-1: Methanethiol  
Methanethiol (methyl mercaptan) is listed in Appendix A and in Appendix B to Part 355 of CFR40.

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Substance is listed.

· **Section 313 (Specific toxic chemical listings):**

CAS No. 74-93-1: Methanethiol

Substance is listed.

· **SECTIONS 302/304**

This product contains a component or components that are considered an Extremely Hazardous Substance subject to reporting under 40CFR355.

· **SECTION 311 AND 312**

HC-1: Acute health hazard

HC-3: Fire hazard

· **CERCLA**

This product does not contain any chemicals subject to reporting as a CERCLA Hazardous Substance under 40CFR302.4.

· **RCRA**

This product exhibits the following characteristics listed in 40CFR261, Subpart C; ignitability (D-001). Disposal of unused product must comply with the hazardous waste regulations.

· **TSCA (Toxic Substances Control Act):** Substance is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

This substance includes beta-myrcene. Beta-myrcene is known to the state of California to cause cancer.

Substance is listed.

· **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.

· **Chemicals known to cause developmental toxicity:** Substance is not listed.

· **New Jersey Right-to-Know List:**

This substance contains dipentene. Dipentene is included on the NJ RTK list.

Substance is listed.

· **New Jersey Special Hazardous Substance List:** Substance is not listed.

· **Pennsylvania Right-to-Know List:**

This substance may contain para-cymene and/or alpha-pinene. Both substances are included on the PA RTK list.

Substance is listed.

· **Pennsylvania Special Hazardous Substance List:** Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)** Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)** Substance is listed.

· **Canadian Non-Domestic Substances List (NDSL)** Substance is not listed.

· **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms**



GHS07 GHS08 GHS09

· **Signal word** *Danger*

· **Hazard statements**

- H227 Combustible liquid.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H304 May be fatal if swallowed and enters airways.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P234 Keep only in original container.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing mist/vapors/spray.
- P262 Do not get in eyes, on skin, or on clothing.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves / eye protection / face protection.
- P301+P312 IF SWALLOWED: Call a doctor if you feel unwell.
- P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
- P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

**DISCLAIMER:** The information and recommendations contained in this Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the SDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or

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state laws.

· **Date of preparation / last revision** 05/25/2017 / 4

· **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organisation*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*BEI: Biological Exposure Limit*

*Flam. Liq. 4: Flammable liquids – Category 4*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A*

*Skin Sens. 1: Skin sensitisation – Category 1*

*Asp. Tox. 1: Aspiration hazard – Category 1*

*Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1*

*Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1*

· **Sources Literature and company data**

US