# Section 1. Identification

<table>
<thead>
<tr>
<th><strong>GHS product identifier</strong></th>
<th>VeryOne® Cetane Improver</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product code</strong></td>
<td>4803</td>
</tr>
<tr>
<td><strong>Other means of</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>identification</strong></td>
<td>Liquid.</td>
</tr>
</tbody>
</table>

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

- **Identified uses**: Fuel additive (Cetane improver).
- **Manufacturer**: VeryOne Inc.
  
  12621 Featherwood, Suite 230
  Houston, Texas 77034
  Tel.: 281-922-9911

- **Emergency telephone number (with hours of operation)**: CHEMTREC, U.S.: 1-800-424-9300 International: +1-703-527-3887 OR 1-281-960-1355. (24/7)

# Section 2. Hazards identification

**OSHA/HCS status**: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture**

- FLAMMABLE LIQUIDS - Category 4
- ACUTE TOXICITY (inhalation) - Category 4
- SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
- AQUATIC HAZARD (LONG-TERM) - Category 2

**GHS label elements**

- **Hazard pictograms**: ![Symbol](image)

**Signal word**: Warning

**Hazard statements**

- H227 - Combustible liquid.
- H332 - Harmful if inhaled.
- H320 - Causes eye irritation.
- H411 - Toxic to aquatic life with long lasting effects.

**Precautionary statements**

- **Prevention**: P280 - Wear protective gloves. Wear eye or face protection.
  P210 - Keep away from flames and hot surfaces. - No smoking.
  P271 - Use only outdoors or in a well-ventilated area.
  P273 - Avoid release to the environment.
  P281 - Avoid breathing vapor.
  P264 - Wash hands thoroughly after handling.
Section 2. Hazards identification

**Response**
- P391 - Collect spillage.
- P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 - If eye irritation persists: Get medical attention.

**Storage**
- P403 - Store in a well-ventilated place.
- P235 - Keep cool.

**Disposal**
- P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazards not otherwise classified**
- None known.

Section 3. Composition/information on ingredients

**Substance/mixture**
- Substance

**Other means of identification**
- Not available.

**CAS number/other identifiers**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethylhexyl nitrate</td>
<td>100</td>
<td>27247-96-7</td>
</tr>
</tbody>
</table>

United States: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.

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 20 minutes. If irritation persists, get medical attention.

**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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact**
- Wash contaminated skin with soap and water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Section 4. First aid measures

**Ingestion**
Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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**: Causes eye irritation.
- **Inhalation**: Harmful if inhaled.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**
- **Eye contact**: Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

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

**Notes to physician**
In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**
No specific treatment.

**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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

**Extinguishing media**
- **Suitable extinguishing media**: Use dry chemical, CO₂, water spray (fog) or foam.
- **Unsuitable extinguishing media**: Do not use water jet or water-based fire extinguishers.

**Specific hazards arising from the chemical**
Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic 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.
Section 5. Fire-fighting measures

Hazardous thermal decomposition products: Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- nitrogen oxides

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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. Collect spillage.

Methods and materials for containment and cleaning up:

Spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach 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 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. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container. Prevent heating above 100 °C due to severe risk of pressure rise and explosion (refer to section 10). Maximal recommended handling temperature: 60 °C.
Section 7. Handling and storage

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. 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 a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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. Store in a ventilated area in tightly closed containers equipped with means of preventing the product from reaching 100 °C (Refer to section 10). Maximal recommended storage temperature: 40 °C. (refer to section 10).

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethylhexyl nitrate</td>
<td>None</td>
</tr>
</tbody>
</table>

Canada

Occupational exposure limits
None.

Ingredients

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethylhexyl nitrate</td>
<td>None</td>
</tr>
</tbody>
</table>

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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

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 goggles.

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. Recommended: Neoprene solvent-proof protective gloves.

**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**: 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. Recommended: Gas mask with organic vapor-canister in case of lack of air-purifying system.

Section 9. Physical and chemical properties

**Appearance**

- **Physical state**: Liquid. [Slightly viscous.] (20 °C).
- **Color**: Clear. Colorless to light yellow.
- **Odor threshold**: Not available.
- **pH**: Not available.
- **Melting point**: <-50°C (<-58°F)
- **Boiling point/boiling range**: Not available.
- **Flash point**: Closed cup: 81°C (177.8°F) [NF T6 0-103]
- **Evaporation rate**: Not available.
- **Flammability (solid, gas)**: Not applicable.
- **Lower and upper explosive (flammable) limits**: Lower: 0.25%
- **Vapor pressure**: 0.027 kPa (0.20252 mm Hg) (20°C (68°F))
- **Vapor density**: Not available.
- **Relative density**: 0.96 @ 20°C
- **Solubility**: Easily soluble in the following materials: Methanol. Hydrocarbons. Chlorinated solvent
  Very slightly soluble in the following materials: cold water and hot water.
- **Partition coefficient: n-octanol/water**: 5.24
- **Auto-ignition temperature**: 215°C (419°F)
- **Decomposition temperature**: 130°C (266°F)
- **Viscosity**: Dynamic (room temperature): 1.7 mPa·s (1.7 cP)
  Kinematic (room temperature): 0.018 cm²/s (1.8 cSt)
- **Flow time (ISO 2431)**: Not available.
Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : Chemically stable under normal storage (60°C in handling and 40°C in storage) (refer to section 7).

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (heat, spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. Vapors may be explosive.

Incompatible materials : Extremely reactive or incompatible with the following materials: oxidizing materials and combustible materials.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>VeryOne® Cetane Improver</td>
<td>LCLo Inhalation Vapor</td>
<td>Rat</td>
<td>&gt;4.6 mg/L</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;4.8 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;9.6 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LCLo Dermal</td>
<td>Rabbit</td>
<td>&gt;4.8 g/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

- Human data:
  Effects in workers have been reported, including dizziness and headaches. These effects are explained by the vasodilatory properties of 2-Ethylhexyl nitrate.
  - Conclusion on acute toxicity:
    No oral and skin toxicity. The inhalation route is inconclusive. However, and according to observations from workers, the classification (worst case) of Acute Toxicity Category 4 is applicable for the inhalation route.

Irritation/Corrosion

  Skin : Non-irritant. (Tested on rabbits: according to OECD Guideline 404 (Acute Dermal Irritation / Corrosion))

  Eyes : Slightly irritating (Tested in vitro according to OECD 437).

Sensitization

There is no data available.

Mutagenicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Experiment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>VeryOne® Cetane Improver</td>
<td>OECD 476</td>
<td>Experiment: In vitro Subject: Mammalian-Animal</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>OECD 473</td>
<td>Experiment: In vitro Subject: Mammalian-Animal</td>
<td>Negative</td>
</tr>
</tbody>
</table>

Carcinogenicity

There is no data available.

Reproductive toxicity
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Maternal toxicity</th>
<th>Fertility</th>
<th>Development toxin</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>VeryOne® Cetane Improver</td>
<td>Negative</td>
<td>Negative</td>
<td>Negative</td>
<td>Rat - Male, Female</td>
<td>Oral</td>
<td>-</td>
</tr>
</tbody>
</table>

**Teratogenicity**
There is no data available.

**Specific target organ toxicity (single exposure)**
Poisoning may affect the blood and cardiovascular system. Alcohol may increase toxic effects (Human and Animal observation).

**Specific target organ toxicity (repeated exposure)**
There is no data available.

**Aspiration hazard**
There is no data available.

**Information on the likely routes of exposure**
Dermal contact. Inhalation. Ingestion.

**Potential acute health effects**
- **Eye contact**: Causes eye irritation.
- **Inhalation**: Harmful if inhaled.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**
- **Eye contact**: Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**
- **Potential immediate effects**: No known significant effects or critical hazards.
- **Potential delayed effects**: No known significant effects or critical hazards.

**Long term exposure**
- **Potential immediate effects**: No known significant effects or critical hazards.
- **Potential delayed effects**: No known significant effects or critical hazards.

**Potential chronic health effects**
- **General**: Probably similar to Nitric Esters (Nitroglycerin and ethylene glycol dinitrate). Vasodilator. With prolonged exposure, can cause headaches, nausea, lower blood pressure (human observation).
- **Carcinogenicity**: No known significant effects or critical hazards.
- **Mutagenicity**: No known significant effects or critical hazards.
- **Teratogenicity**: No known significant effects or critical hazards.
Section 11. Toxicological information

**Developmental effects**: No known significant effects or critical hazards.

**Fertility effects**: No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation (vapors)</td>
<td>11 mg/L</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

**Toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>VeryOne® Cetane Improver</td>
<td>EC50 &lt;0.8 mg/L</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 1.88 mg/L</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>NOEC 1.42 mg/L</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>VeryOne® Cetane Improver</td>
<td>OECD 310</td>
<td>0 % - Not readily - 28 days</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>VeryOne® Cetane Improver</td>
<td>Fresh water 7 days, pH 7, 25°C (Hydrolysis test in terms of pH.)</td>
<td>-</td>
<td>Not readily</td>
</tr>
<tr>
<td></td>
<td>Fresh water 1 days, pH 7, 50°C (Hydrolysis test in terms of pH.)</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>VeryOne® Cetane Improver</td>
<td>5.24</td>
<td>1332</td>
<td>high</td>
</tr>
</tbody>
</table>

**Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)**: 5623 L/kg (OECD 121: HPLC method). Significant potential for adsorption in soils.

**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 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 empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container.
Section 13. Disposal considerations

Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN3082</td>
<td>UN3082</td>
<td>UN3082</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>COMBUSTIBLE LIQUID, N.O.S. (2-Ethylhexyl nitrate)</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Ethylhexyl nitrate)</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Ethylhexyl nitrate)</td>
</tr>
</tbody>
</table>

**Transport hazard class(es)**

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>UN number</th>
<th>UN proper shipping name</th>
<th>Transport within user's premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combustible liquid</td>
<td>Combustible liquid</td>
<td>III</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

**Environmental hazards**

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>UN number</th>
<th>UN proper shipping name</th>
<th>AERG</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>UN3082</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Ethylhexyl nitrate)</td>
<td>171, 128 (US only)</td>
</tr>
</tbody>
</table>

**DOT Classification**

- Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials.

**TDG Classification**

- Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 3), 9 (Marine pollutant mark).

**IMDG**

- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**IATA**

- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

**Additional Information**

- 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 15. Regulatory information

**U.S. Federal regulations**

- **Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs):** Not listed

**Clean Air Act Section 602 Class I Substances**

- Not listed
Section 15. Regulatory information

Clean Air Act Section 602
Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304
No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312 Classification
FLAMMABLE LIQUIDS - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B

There is no data available.

State regulations
Massachusetts : None of the components are listed.
New York : None of the components are listed.
New Jersey : None of the components are listed.
Pennsylvania : None of the components are listed.

California Prop. 65
This product does not require a Safe Harbor warning under California Prop. 65.

Canadian lists
Canada inventory (DSL NDSL) : All components are listed or exempted.
Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health / Flammability
Physical hazards

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.
Section 16. Other information

National Fire Protection Association (U.S.A.)

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History

- Date of issue mm/dd/yyyy : 02/15/2020
- Date of previous issue yyyy : 04/30/2017
- Version : 4
- Prepared by : KMK Regulatory Services Inc.

Key to abbreviations :
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- UN = United Nations

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.