

SECTION 1 Identification**1.1. Product identifier**

Product form : Mixture
Product name : Cetane Power Booster
Part Number : 11032

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Fuel additives

1.4. Supplier's details

Lucas Oil Products, Inc.
3199 Harrison Way NW
Corydon, IN 47112
USA
T 800-342-2512
sds@lucasoil.com - www.LucasOil.com

1.5. Emergency phone number

Emergency number : For Chemical Emergency Call ChemTel 24hr/day 7days/week. Within USA, Canada, Puerto Rico & US Virgin Islands: 1-800-255-3924. International: 1-813-248-0585 (collect calls accepted). Australia: 1-300-954-583. Brazil: 0-800-591-6042. China: 400-120-0751. India: 000-800-100-4086. Mexico: 800-099-0731.

SECTION 2 Hazard Identification**2.1. Classification of the substance or mixture****GHS US classification**

| | | |
|---|------|--|
| Flammable liquid, Category 4 | H227 | Combustible liquid. |
| Acute toxicity (oral), Category 4 | H302 | Harmful if swallowed. |
| Acute toxicity (inhalation:dust,mist), Category 4 | H332 | Harmful if inhaled. |
| Reproductive toxicity, Category 2 | H361 | Suspected of damaging fertility or the unborn child. |
| Hazardous to the aquatic environment — Chronic Hazard, Category 2 | H411 | Toxic to aquatic life with long lasting effects. |

Full text of H statements : see section 16

2.2. Label elements**GHS US labeling**

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H227 - Combustible liquid
H302+H332 - Harmful if swallowed or if inhaled
H361 - Suspected of damaging fertility or the unborn child
H411 - Toxic to aquatic life with long lasting effects

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| | |
|-----------------------------------|--|
| Precautionary statements (GHS US) | : P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 - Avoid breathing dust, fume, gas, mist, vapors, spray. P264 - Wash hands, forearms and face thoroughly after handling. 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, protective clothing, eye protection, face protection, and hearing protection. P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell. P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing. P308+P313 - If exposed or concerned: Get medical advice/attention. P312 - Call a poison center or doctor if you feel unwell. P330 - Rinse mouth. P370+P378 - In case of fire: Use appropriate media to extinguish. P391 - Collect spillage. P403 - Store in a well-ventilated place. P405 - Store locked up. P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations. |
|-----------------------------------|--|

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|--|----------------------|----------|--|
| Distillates (petroleum), hydrotreated heavy paraffinic | CAS-No.: 64742-54-7 | 30 - 60* | Asp. Tox. 1, H304 Aquatic Chronic 4, H413 |
| 2-Ethylhexyl nitrate | CAS-No.: 27247-96-7 | 15 - 40* | Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Aquatic Chronic 2, H411 |
| 1-Propene, 2-methyl-, homopolymer, hydroformylation products, reaction products with ammonia | CAS-No.: 337367-30-3 | 1 - 5* | Skin Irrit. 2, H315 Aquatic Chronic 3, H412 |
| Distillates (petroleum), hydrotreated light | CAS-No.: 64742-47-8 | 1 - 5* | Asp. Tox. 1, H304 |

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| Name | Product identifier | % | GHS US classification |
|---------------------|--------------------|------------|---|
| 1-Hexanol, 2-ethyl- | CAS-No.: 104-76-7 | 0.5 - 1.5* | Flam. Liq. 4, H227 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 3, H402 Aquatic Chronic 3, H412 |
| Xylene | CAS-No.: 1330-20-7 | 0.5 - 1.5* | Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 Asp. Tox. 1, H304 |

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

| | |
|---|--|
| First-aid measures general | : IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Rinse mouth. Call a poison center/doctor/physician if you feel unwell. |
| Personal protection for first-aid responders. | : First aid workers will be equipped with suitable personal protective equipment. |

4.2. Most important symptoms/effects, acute and delayed

| | |
|-------------------------------------|---------------------------------|
| Symptoms/effects after inhalation | : Harmful if inhaled. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : Harmful if swallowed. |

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

| | |
|-----------------------------------|--------------------------|
| Other medical advice or treatment | : Treat symptomatically. |
|-----------------------------------|--------------------------|

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|--|--------------------------------|
| Fire hazard | : Combustible liquid. |
| Explosion hazard | : No direct explosion hazard. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |

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5.3. Special protective equipment and precautions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|------------------|---|
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
|------------------|---|

For non-emergency personnel

| | |
|----------------------|--|
| Protective equipment | : Wear recommended personal protective equipment. |
| Emergency procedures | : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. |

For emergency responders

| | |
|---------------------------|---|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : Evacuate unnecessary personnel. Stop leak if safe to do so. |
| Environmental precautions | : Avoid release to the environment. |

6.2. Methods and materials for containment and cleaning up

| | |
|-------------------------|---|
| For containment | : Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| Methods for cleaning up | : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. |
| Other information | : Dispose of materials or solid residues at an authorized site. |

For further information refer to section 13.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

| | |
|-----------------------------------|---|
| Precautions for safe handling | : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. |
| Hygiene measures | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| Additional hazards when processed | : Not expected to present a significant hazard under anticipated conditions of normal use. |

7.2. Conditions for safe storage, including incompatibilities

| | |
|---------------------|---|
| Technical measures | : Keep in a cool, well-ventilated place away from heat. |
| Storage conditions | : Store in a well-ventilated place. Keep cool. Store locked up. |
| Packaging materials | : Always store product in container of same material as original container. |

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SECTION 8 Exposure controls/personal protection

8.1. Control parameters

| Xylene (1330-20-7) | |
|--|--|
| USA - ACGIH® - Threshold Limit Values | |
| Local name | Xylene, mixed isomers (Dimethylbenzene) |
| ACGIH® TLV® TWA | 20 ppm |
| Remark (ACGIH®) | TLV® Basis: Eye & URT irr; CNS impair; Hematologic eff; Ototoxicity (p-xylene). Notations: OTO (Ototoxicant) (p isomer); A4 (Not classifiable as a Human Carcinogen); BEI |
| Regulatory reference | ACGIH 2025 |
| USA - ACGIH® - Biological Exposure Indices | |
| Local name | Xylene, all isomers (Dimethylbenzene) |
| BEI | 0.3 g/g Kreatinin Parameter: Methylhippuric acids - Medium: urine - Sampling time: End of shift |
| Remark | Commercial or technical grade xylenes consist of mixtures of isomers and significant amounts of ethyl benzene as indicated under "Properties." Because ethyl benzene is known to reduce the metabolism of xylenes to methylhippuric acids, the BEI applies to technical or commercial grades of xylenes only. The determinants refer to the total of all isomers of methylhippuric acids |
| Regulatory reference | ACGIH 2025 |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | Xylenes (o-, m-, p-isomers) |
| OSHA PEL TWA | 435 mg/m ³ 100 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| USA - Cal/OSHA - Occupational Exposure Limits | |
| Local name | Xylene; xylol; dimethylbenzene |
| Cal/OSHA PEL (OEL TWA) | 435 mg/m ³ 100 ppm |
| Cal/OSHA STEL | 655 mg/m ³ 150 ppm |
| Cal/OSHA C | 300 ppm |
| Regulatory reference | California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1) |
| USA - NIOSH - Occupational Exposure Limits | |
| Local name | Xylenes (o-, m-, p-isomers) |
| NIOSH REL 10h TWA | 100 ppm |
| NIOSH REL STEL | 150 ppm |
| Regulatory reference (US-NIOSH) | OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG)) |

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| 1-Hexanol, 2-ethyl- (104-76-7) | |
|---------------------------------------|---|
| USA - ACGIH® - Threshold Limit Values | |
| Local name | 2-Ethyl-1-hexanol |
| ACGIH® TLV® TWA | 5 ppm |
| Remark (ACGIH®) | TLV® Basis: URT irr & eye irr. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans) |
| Regulatory reference | ACGIH 2024 |

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

| |
|--|
| Hand protection: |
| Protective gloves |
| Eye protection: |
| Safety glasses |
| Skin and body protection: |
| Wear suitable protective clothing |
| Respiratory protection: |
| [In case of inadequate ventilation] wear respiratory protection. |

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid
Color : Mixture contains one or more component(s) which have the following color(s):
Colourless to light yellow Colourless Pure substance: colourless Unpurified: light yellow Pure substance: white Unpurified: yellow to brown
Odor : There may be no odor warning properties, odor is subjective and inadequate to warn of overexposure.
Mixture contains one or more component(s) which have the following odor:
Irritating/pungent odour Fruity odour Mild odour Petroleum-like odour Pleasant odour Aromatic odour Sweet odour Characteristic odour Stuffy odour Oil-like odour Tar odour
Odor threshold : No data available
pH : No data available
Melting point : Not applicable
Freezing point : No data available
Boiling point : No data available

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| | |
|---|-------------------------------------|
| Flash point | : 168 °F |
| Flammability (solid, gas) | : Not applicable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : 0.9 |
| Density | : 7.518 lb/gal |
| Solubility | : No data available |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : 21.48 mm ² /s @ 40 ° C |
| Explosion limits | : No data available |
| Particle characteristics | : No data available |

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

SECTION 11 Toxicological information

11.1. Information on toxicological effects

| | |
|-----------------------------|---|
| Acute toxicity (oral) | : Harmful if swallowed. |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Inhalation:dust,mist: Harmful if inhaled. |

| Cetane Power Booster | |
|-----------------------------------|--|
| ATE US (oral) | 1678.792 mg/kg body weight |
| ATE US (dust, mist) | 4.892 mg/l/4h |
| 2-Ethylhexyl nitrate (27247-96-7) | |
| LD50 oral rat | > 9600 mg/kg (Rat, Male / female, Experimental value, (maximum achievable concentration), Oral (repeated exposure), 14 day(s)) |

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| 2-Ethylhexyl nitrate (27247-96-7) | |
|--|--|
| LD50 oral | 9600 mg/kg |
| LD50 dermal | 4800 mg/kg |
| LC50 Inhalation - Rat (Dust/Mist) | 14 mg/l/4h |
| ATE US (oral) | 500 mg/kg body weight |
| ATE US (dermal) | 1100 mg/kg body weight |
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |
| Xylene (1330-20-7) | |
| LD50 oral rat | > 4000 mg/kg body weight (Equivalent or similar to EU Method B.1, Rat, Female, Experimental value, Oral, 14 day(s)) |
| LD50 oral | 3500 mg/kg |
| LD50 dermal rabbit | > 4200 mg/kg body weight (4 h, Rabbit, Male, Experimental value, Dermal, 14 day(s)) |
| LD50 dermal | 1700 mg/kg |
| LC50 Inhalation - Rat | 29.09 mg/l (Equivalent or similar to EU Method B.2, 4 h, Rat, Male, Experimental value, Inhalation (vapours), 14 day(s)) |
| LC50 Inhalation - Rat [ppm] | 5922 ppm |
| LC50 Inhalation - Rat (Vapors) | 27.57 mg/l/4h |
| ATE US (oral) | 3500 mg/kg body weight |
| ATE US (dermal) | 1700 mg/kg body weight |
| ATE US (gases) | 5922 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |
| Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) | |
| LD50 dermal rabbit | > 5000 mg/kg Source: IUCLID |
| Distillates (petroleum), hydrotreated light (64742-47-8) | |
| LD50 oral rat | > 5000 mg/kg body weight Animal: rat, Guideline: EPA OTS 798.1175 (Acute Oral Toxicity), Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method) |
| LD50 oral | 15000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg body weight Animal: rabbit, Guideline: EPA OTS 798.1100 (Acute Dermal Toxicity), Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LC50 Inhalation - Rat | > 5.28 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), 95% CL: 0,42 - |
| LC50 Inhalation - Rat (Dust/Mist) | > 5.2 mg/l Source: IUCLID |
| ATE US (oral) | 15000 mg/kg body weight |
| 1-Hexanol, 2-ethyl- (104-76-7) | |
| LD50 oral rat | 2047 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 14 day(s)) |

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| 1-Hexanol, 2-ethyl- (104-76-7) | |
|---|--|
| LD50 oral | 2049 mg/kg |
| LD50 dermal rat | > 3000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) |
| LD50 dermal rabbit | 1970 mg/kg Source: NLM, THOMSON |
| LD50 dermal | 3000 mg/kg |
| LC50 Inhalation - Rat | 0.89 – 5.3 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (mixture of vapour and aerosol), 7 day(s)) |
| LC50 Inhalation - Rat (Vapors) | 4.9 mg/l/4h |
| ATE US (oral) | 2047 mg/kg body weight |
| ATE US (dermal) | 1970 mg/kg body weight |
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 4.9 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |
| Skin corrosion/irritation | : Not classified |
| 2-Ethylhexyl nitrate (27247-96-7) | |
| pH | No data available in the literature |
| Xylene (1330-20-7) | |
| pH | No data available in the literature |
| 1-Hexanol, 2-ethyl- (104-76-7) | |
| pH | 7 (0.1 %) |
| Serious eye damage/irritation | : Not classified |
| 2-Ethylhexyl nitrate (27247-96-7) | |
| pH | No data available in the literature |
| Xylene (1330-20-7) | |
| pH | No data available in the literature |
| 1-Hexanol, 2-ethyl- (104-76-7) | |
| pH | 7 (0.1 %) |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Xylene (1330-20-7) | |
| IARC group | 3 - Not classifiable |
| Reproductive toxicity | : Suspected of damaging fertility or the unborn child. |
| Distillates (petroleum), hydrotreated light (64742-47-8) | |
| NOAEL (animal/male, F0/P) | ≥ 3000 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 415 [One-Generation Reproduction Toxicity Study (before 9 October 2017)] |
| STOT-single exposure | : Not classified |
| Xylene (1330-20-7) | |
| STOT-single exposure | May cause drowsiness or dizziness. |

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| 1-Hexanol, 2-ethyl- (104-76-7) | |
|--|--|
| STOT-single exposure | May cause respiratory irritation. |
| STOT-repeated exposure | : Not classified |
| 2-Ethylhexyl nitrate (27247-96-7) | |
| NOAEL (dermal,rat/rabbit,90 days) | 500 mg/kg body weight Animal: rabbit, Guideline: EPA OPP 82-2 (Repeated Dose Dermal Toxicity -21/28 Days) |
| Xylene (1330-20-7) | |
| LOAEL (oral,rat,90 days) | 150 mg/kg bw/day |
| NOAEC (inhalation,rat,gas,90 days) | > 810 ppm |
| Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) | |
| LOAEL (oral,rat,90 days) | 125 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) |
| NOAEC (inhalation,rat,dust/mist/fume,90 days) | > 0.98 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study) |
| Distillates (petroleum), hydrotreated light (64742-47-8) | |
| NOAEL (oral,rat,90 days) | 750 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) |
| NOAEL (dermal,rat/rabbit,90 days) | ≥ 495 mg/kg body weight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study) |
| 1-Hexanol, 2-ethyl- (104-76-7) | |
| NOAEL (oral,rat,90 days) | 250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) |
| NOAEC (inhalation,rat,gas,90 days) | 120 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study) |
| Aspiration hazard | : Not classified |
| Cetane Power Booster | |
| Viscosity, kinematic | 21.48 mm ² /s @ 40 ° C |
| 2-Ethylhexyl nitrate (27247-96-7) | |
| Viscosity, kinematic | 1.3 mm ² /s (20 °C) |
| Xylene (1330-20-7) | |
| Viscosity, kinematic | 0.74 mm ² /s (20 °C) |
| Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) | |
| Viscosity, kinematic | 18 mm ² /s |
| Hydrocarbon | Yes |
| Aliphatic, alicyclic or aromatic hydrocarbon | Yes |
| 1-Hexanol, 2-ethyl- (104-76-7) | |
| Viscosity, kinematic | No data available in the literature |
| Symptoms/effects after inhalation | : Harmful if inhaled. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : Harmful if swallowed. |

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SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

| 2-Ethylhexyl nitrate (27247-96-7) | |
|--|--|
| LC50 - Fish [1] | 2 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP) |
| EC50 - Crustacea [1] | > 12.6 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect) |
| EC50 96h - Algae [1] | 1.111 mg/l Source: ECOSAR |
| ErC50 algae | 3.22 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration) |

| Xylene (1330-20-7) | |
|---------------------------|---|
| LC50 - Fish [1] | 2.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static renewal, Fresh water, Read-across, Lethal) |
| EC50 - Crustacea [1] | > 3.4 mg/l Test organisms (species): Ceriodaphnia dubia |
| ErC50 algae | 4.4 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |
| LOEC (chronic) | 3.16 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic fish | > 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d' |

| Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) | |
|--|----------------------------|
| LC50 - Fish [1] | > 5000 mg/l |
| EC50 - Crustacea [1] | > 1000 mg/l Source: IUCLID |
| EC50 96h - Algae [1] | > 1000 mg/l Source: IUCLID |

| 1-Hexanol, 2-ethyl- (104-76-7) | |
|---------------------------------------|--|
| LC50 - Fish [1] | 17.1 mg/l (EU Method C.1, 96 h, Leuciscus idus, Flow-through system, Fresh water, Experimental value, GLP) |
| EC50 - Crustacea [1] | 39 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect) |
| LC50 - Fish [2] | 28.2 mg/l Test organisms (species): Pimephales promelas |
| EC50 72h - Algae [1] | 11.5 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| EC50 72h - Algae [2] | 16.6 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| ErC50 algae | 16.6 mg/l (EU Method C.3, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP) |

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12.2. Persistence and degradability

| Cetane Power Booster | |
|--|--|
| Persistence and degradability | Not rapidly degradable |
| 2-Ethylhexyl nitrate (27247-96-7) | |
| Persistence and degradability | Not readily biodegradable in water. |
| Xylene (1330-20-7) | |
| Persistence and degradability | Biodegradable in the soil, Readily biodegradable in water. |
| Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) | |
| Persistence and degradability | Not rapidly degradable |
| Distillates (petroleum), hydrotreated light (64742-47-8) | |
| Persistence and degradability | Not rapidly degradable |
| 1-Hexanol, 2-ethyl- (104-76-7) | |
| Persistence and degradability | Biodegradable in the soil, Readily biodegradable in water. |
| 1-Propene, 2-methyl-, homopolymer, hydroformylation products, reaction products with ammonia (337367-30-3) | |
| Persistence and degradability | Not rapidly degradable |

12.3. Bioaccumulative potential

| 2-Ethylhexyl nitrate (27247-96-7) | |
|---|--|
| BCF - Fish [1] | 1332 l/kg (OECD 305: Bioconcentration: Flow-Through Fish Test, Pisces, QSAR) |
| Partition coefficient n-octanol/water (Log Pow) | 5.24 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 40 °C) |
| Bioaccumulative potential | High potential for bioaccumulation (Log Kow > 5). |
| Xylene (1330-20-7) | |
| BCF - Fish [1] | 7.2 – 26 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across) |
| Partition coefficient n-octanol/water (Log Pow) | 3.2 (Read-across, 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) | |
| Partition coefficient n-octanol/water (Log Pow) | 3.9 – 6 Source: IUCLID |
| Distillates (petroleum), hydrotreated light (64742-47-8) | |
| Partition coefficient n-octanol/water (Log Pow) | 3.3 – 6 Source: IUCLID |
| 1-Hexanol, 2-ethyl- (104-76-7) | |
| Partition coefficient n-octanol/water (Log Pow) | 2.9 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

12.4. Mobility in soil

| 2-Ethylhexyl nitrate (27247-96-7) | |
|-----------------------------------|-------------------------------------|
| Surface tension | No data available in the literature |

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| 2-Ethylhexyl nitrate (27247-96-7) | |
|--|---|
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 3.75 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value) |
| Ecology - soil | Low potential for mobility in soil. |
| Xylene (1330-20-7) | |
| Surface tension | 28.01 – 29.76 mN/m (25 °C) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 2.7 (log Koc, Equivalent or similar to OECD 121, Read-across) |
| Ecology - soil | Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation. |
| 1-Hexanol, 2-ethyl- (104-76-7) | |
| Surface tension | 47 mN/m (20 °C, 0.81 g/l) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1.5475 – 2.1177 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

12.5. Other adverse effects

| | |
|------------------------------|------------------|
| Ozone | : Not classified |
| Fluorinated greenhouse gases | : No |

SECTION 13 Disposal considerations

| | |
|--|---|
| Regional waste regulation | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | : Disposal must be done according to official regulations. |
| Additional information | : Do not re-use empty containers. |
| Ecological waste information | : The waste of the product should be considered as hazardous as the product itself, with the likelihood of impacting the environment in the same way. Consider the handling and disposal of the waste as defined by the product itself. |

SECTION 14 Transport information



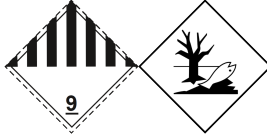
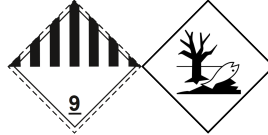
In accordance with DOT / TDG / IMDG / IATA

| DOT | TDG | IMDG | IATA |
|--|--|--|--|
| 14.1. UN number | | | |
| NA1993 | UN3082 | UN3082 | UN3082 |
| 14.2. Proper Shipping Name | | | |
| Combustible liquid, n.o.s.(Petroleum Distillates) (2-Ethylhexyl nitrate) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Ethylhexyl nitrate) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Ethylhexyl nitrate) | Environmentally hazardous substance, liquid, n.o.s. (2-Ethylhexyl nitrate) |
| 14.3. Transport hazard class(es) | | | |
| Combustible liquid | 9 | 9 | 9 |

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| DOT | TDG | IMDG | IATA |
|---|---|--|---|
|  |  |  |  |
| 14.4. Packing group | | | |
| III | III | III | III |
| 14.5. Environmental hazards | | | |
| Dangerous for the environment: Yes | Dangerous for the environment: Yes | Dangerous for the environment: Yes Marine pollutant: Yes | Dangerous for the environment: Yes |
| No supplementary information available | | | |

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

| | |
|--|---|
| DOT | |
| UN-No. (DOT) | : NA1993 |
| DOT Special Provisions (49 CFR 172.102) | : 148 - Except for transportation by aircraft, when transported as a limited quantity or a consumer commodity, the maximum net capacity specified in §173.150(b)(2) of this subchapter for inner packaging may be increased to 5 L (1.3 gallons). IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : 150 |
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : 203 |
| DOT Packaging Bulk (49 CFR 173.xxx) | : 241 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 60 L |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 220 L |
| DOT Vessel Stowage Location | : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel. |
| TDG | |
| UN-No. (TDG) | : UN3082 |

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| | |
|--|---|
| TDG Special Provisions | : 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the danger or dangers posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name: (a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; (b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; (c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; (d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or (e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. (3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment: (a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or (b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS, 99 - (1) Mixtures of solids that are not dangerous goods and liquids or solids that are UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, may be offered for transport, handled or transported as UN3077 if there is no visible liquid when the dangerous goods are loaded into a means of containment and during transport. (2) These Regulations, except for Parts 1 and 2, do not apply to the offering for transport, handling or transport of less than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or less than 450 L of UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no release of the dangerous goods that could endanger public safety. |
| Explosive Limit and Limited Quantity Index | : 5 L |
| Excepted quantities (TDG) | : E1 |
| IMDG | |
| Special provision (IMDG) | : 274, 335, 375, 969 |
| Limited quantities (IMDG) | : 5 L |
| Excepted quantities (IMDG) | : E1 |
| Packing instructions (IMDG) | : LP01, P001 |
| Packing provisions (IMDG) | : PP1 |
| IBC packing instructions (IMDG) | : IBC03 |
| Tank instructions (IMDG) | : T4 |
| Tank special provisions (IMDG) | : TP1, TP29 |
| EmS-No. (Fire) | : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE |
| EmS-No. (Spillage) | : S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS |
| Stowage category (IMDG) | : A |
| IATA | |
| Special provision (IATA) | : A97, A158, A197, A215 |
| PCA Excepted quantities (IATA) | : E1 |
| PCA Limited quantities (IATA) | : Y964 |
| PCA limited quantity max net quantity (IATA) | : 30kgG |
| PCA packing instructions (IATA) | : 964 |
| PCA max net quantity (IATA) | : 450L |
| CAO packing instructions (IATA) | : 964 |
| CAO max net quantity (IATA) | : 450L |
| ERG code (IATA) | : 9L |

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SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

| | | |
|--|---------------------|---------|
| 1-Propene, 2-methyl-, homopolymer, hydroformylation products, reaction products with ammonia | CAS-No. 337367-30-3 | 1 - 5*% |
|--|---------------------|---------|

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

| | | |
|--------|-------------------|-------------|
| Xylene | CAS-No. 1330-20-7 | 0.5 - 1.5*% |
|--------|-------------------|-------------|

Xylene (1330-20-7)

Listed on EPA Hazardous Air Pollutant (HAPS)
Listed on EPA HAPs Chronic Dose Response Assessment List - Carcinogens
Listed on EPA HAPs Acute Dose Response Assessment List – Exposure limits

| | |
|-----------|--------|
| CERCLA RQ | 100 lb |
|-----------|--------|

15.2. International regulations

CANADA

2-Ethylhexyl nitrate (27247-96-7)

Listed on the Canadian DSL (Domestic Substances List)

Xylene (1330-20-7)

Listed on the Canadian DSL (Domestic Substances List)

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Listed on the Canadian DSL (Domestic Substances List)

Distillates (petroleum), hydrotreated light (64742-47-8)

Listed on the Canadian DSL (Domestic Substances List)

1-Hexanol, 2-ethyl- (104-76-7)

Listed on the Canadian DSL (Domestic Substances List)

1-Propene, 2-methyl-, homopolymer, hydroformylation products, reaction products with ammonia (337367-30-3)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

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National regulations

Xylene (1330-20-7)

Listed on EPA HAPs Chronic Dose Response Assessment List - Carcinogens
Listed on EPA HAPs Acute Dose Response Assessment List – Exposure limits
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Distillates (petroleum), hydrotreated light (64742-47-8)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

1-Hexanol, 2-ethyl- (104-76-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations



WARNING:

This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Revision date : 5/8/2026

Issue date : 4/30/2025

Full text of hazard classes and H-statements

| | |
|------|--|
| H226 | Flammable liquid and vapor |
| H227 | Combustible liquid |
| H302 | Harmful if swallowed |
| H304 | May be fatal if swallowed and enters airways |
| H312 | Harmful in contact with skin |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H332 | Harmful if inhaled |
| H335 | May cause respiratory irritation |
| H336 | May cause drowsiness or dizziness |
| H361 | Suspected of damaging fertility or the unborn child |
| H402 | Harmful to aquatic life |
| H411 | Toxic to aquatic life with long lasting effects |
| H412 | Harmful to aquatic life with long lasting effects |
| H413 | May cause long lasting harmful effects to aquatic life |

Safety Data Sheet (SDS), USA

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.