

SAFETY DATA SHEET

1. Identification

Product identifier: Penetrate HD LV (61107)

Other means of identification
None

Recommended restrictions
Product use: Lubricant
Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Company Name: Nu-Calgon
Address: 2611 Schuetz Road
St. Louis, MO 63043
Telephone: 1-314-469-7000 /
800-554-5499

Emergency telephone number: 1-800-424-9300

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable aerosol Category 1

Health Hazards

Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2A
Skin sensitizer Category 1
Specific Target Organ Toxicity -
Repeated Exposure Category 1
Aspiration Hazard Category 1

Environmental Hazards

Acute hazards to the aquatic
environment Category 3

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Extremely flammable aerosol.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Causes damage to organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.
Harmful to aquatic life.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Avoid release to the environment.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Get medical advice/attention if you feel unwell. Specific treatment (see on this label). Wash contaminated clothing before reuse.

Storage: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

| Chemical Identity | CAS number | Content in percent (%)* |
|--|------------|-------------------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | 64742-52-5 | 20 - <50% |
| Distillates, Petroleum, Hydrotreated Light Naphthenic | 64742-53-6 | 20 - <50% |
| Distillates (petroleum), hydrotreated light | 64742-47-8 | 20 - <50% |
| Distillates (petroleum), hydrotreated middle | 64742-46-7 | 5 - <10% |
| Oils, pine | 8002-09-3 | 1 - <5% |
| Terpineol | 8000-41-7 | 1 - <5% |
| Ethanol, 2-(2-butoxyethoxy)- | 112-34-5 | 1 - <5% |
| Benzene, 1,2,4-trimethyl- | 95-63-6 | 1 - <5% |
| Stoddard solvent | 8052-41-3 | 1 - <5% |
| Carbon dioxide | 124-38-9 | 1 - <5% |

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion: Call a physician or poison control center immediately. Rinse mouth. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

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| Inhalation: | Move to fresh air. |
| Skin Contact: | Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention. |
| Eye contact: | Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention. |

Most important symptoms/effects, acute and delayed

| | |
|------------------|--------------------|
| Symptoms: | No data available. |
| Hazards: | No data available. |

Indication of immediate medical attention and special treatment needed

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| Treatment: | No data available. |
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5. Fire-fighting measures

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| General Fire Hazards: | Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk. |
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Suitable (and unsuitable) extinguishing media

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| Suitable extinguishing media: | Use fire-extinguishing media appropriate for surrounding materials. |
| Unsuitable extinguishing media: | Do not use water jet as an extinguisher, as this will spread the fire. |

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| Specific hazards arising from the chemical: | Vapors may travel considerable distance to a source of ignition and flash back. |
|--|---|

Special protective equipment and precautions for firefighters

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| Special fire fighting procedures: | No data available. |
| Special protective equipment for fire-fighters: | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |

6. Accidental release measures

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|---|---|
| Personal precautions, protective equipment and emergency procedures: | Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. |
| Methods and material for containment and cleaning up: | Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. |

Notification Procedures: Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Avoid contact with eyes. Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities: Store locked up. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 3

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

| Chemical Identity | Type | Exposure Limit Values | Source |
|--|-----------|-----------------------|---|
| Distillates (petroleum), hydrotreated heavy naphthenic | TWA | 400 ppm 1,600 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | PEL | 500 ppm 2,000 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| Distillates (petroleum), hydrotreated heavy naphthenic - Mist. | REL | 5 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | STEL | 10 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| Distillates (petroleum), hydrotreated heavy naphthenic | TWA | 5 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | Ceil_Time | 1,800 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010) |
| Distillates (petroleum), hydrotreated heavy naphthenic - Inhalable fraction. | TWA | 5 mg/m3 | US. ACGIH Threshold Limit Values, as amended (03 2014) |
| Distillates (petroleum), hydrotreated heavy naphthenic | REL | 350 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010) |
| Distillates, Petroleum, Hydrotreated Light Naphthenic - Mist. | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| | TWA | 5 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| Distillates, Petroleum, Hydrotreated Light Naphthenic | TWA | 400 ppm 1,600 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | PEL | 500 ppm 2,000 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| Distillates, Petroleum, Hydrotreated Light Naphthenic - Mist. | REL | 5 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | STEL | 10 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| Distillates, Petroleum, Hydrotreated Light Naphthenic | Ceil_Time | 1,800 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010) |
| | REL | 350 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010) |

| | | | |
|---|-----------|-------------------------|---|
| Distillates, Petroleum, Hydrotreated Light Naphthenic - Inhalable fraction. | TWA | 5 mg/m3 | US. ACGIH Threshold Limit Values, as amended (03 2014) |
| Distillates (petroleum), hydrotreated light | REL | 100 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| Distillates (petroleum), hydrotreated light - Non-aerosol. - as total hydrocarbon vapor | TWA | 200 mg/m3 | US. ACGIH Threshold Limit Values, as amended (2008) |
| | TWA | 200 mg/m3 | US. ACGIH Threshold Limit Values, as amended (2008) |
| Distillates (petroleum), hydrotreated middle - Mist. | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| | REL | 5 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | STEL | 10 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | TWA | 5 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| Distillates (petroleum), hydrotreated middle - Inhalable fraction. | TWA | 5 mg/m3 | US. ACGIH Threshold Limit Values, as amended (03 2014) |
| Ethanol, 2-(2-butoxyethoxy)- - Inhalable fraction and vapor. | TWA | 10 ppm | US. ACGIH Threshold Limit Values, as amended (03 2013) |
| Benzene, 1,2,4-trimethyl- | TWA | 25 ppm | US. ACGIH Threshold Limit Values, as amended (2008) |
| | TWA | 25 ppm 125 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | REL | 25 ppm 125 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| Stoddard solvent | TWA | 100 ppm 525 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | TWA | 100 ppm | US. ACGIH Threshold Limit Values, as amended (2008) |
| | REL | 350 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | Ceil_Time | 1,800 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | PEL | 500 ppm 2,900 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| Carbon dioxide | TWA | 5,000 ppm | US. ACGIH Threshold Limit Values, as amended (2008) |
| | STEL | 30,000 ppm | US. ACGIH Threshold Limit Values, as amended (2008) |
| | STEL | 30,000 ppm 54,000 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | REL | 5,000 ppm 9,000 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | PEL | 5,000 ppm 9,000 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| | TWA | 10,000 ppm 18,000 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | STEL | 30,000 ppm 54,000 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| 2-Butanol | REL | 100 ppm 305 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | STEL | 150 ppm 455 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | TWA | 100 ppm | US. ACGIH Threshold Limit Values, as amended (2008) |
| | TWA | 100 ppm 305 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | PEL | 150 ppm 450 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| Benzene, 1,3,5-trimethyl- | TWA | 25 ppm | US. ACGIH Threshold Limit Values, as amended (2008) |
| | REL | 25 ppm 125 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | TWA | 25 ppm 125 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| 2-Pentanone, 4-hydroxy-4-methyl- | PEL | 50 ppm 240 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |

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|---------------------------|------|---------|-------------|--|
| | TWA | 50 ppm | | US. ACGIH Threshold Limit Values, as amended (2008) |
| | REL | 50 ppm | 240 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | TWA | 50 ppm | 240 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| Benzene, 1,2,3-trimethyl- | TWA | 25 ppm | | US. ACGIH Threshold Limit Values, as amended (2008) |
| | TWA | 25 ppm | 125 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | REL | 25 ppm | 125 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| Nonane | TWA | 200 ppm | 1,050 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | REL | 200 ppm | 1,050 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | TWA | 200 ppm | | US. ACGIH Threshold Limit Values, as amended (02 2012) |
| Benzene, (1-methylethyl)- | REL | 50 ppm | 245 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | TWA | 50 ppm | | US. ACGIH Threshold Limit Values, as amended (2008) |
| | PEL | 50 ppm | 245 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| | TWA | 50 ppm | 245 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | TWA | 1 ppm | | US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values, as amended (03 2018) |
| Benzene, dimethyl- | TWA | 100 ppm | 435 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | TWA | 100 ppm | | US. ACGIH Threshold Limit Values, as amended (2008) |
| | PEL | 100 ppm | 435 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| | STEL | 150 ppm | 655 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | STEL | 150 ppm | | US. ACGIH Threshold Limit Values, as amended (2008) |
| | STEL | 150 ppm | 655 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2016) |
| | REL | 100 ppm | 435 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2016) |
| Benzene, ethyl- | STEL | 125 ppm | 545 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | REL | 100 ppm | 435 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | PEL | 100 ppm | 435 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| | STEL | 125 ppm | 545 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | TWA | 100 ppm | 435 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | TWA | 20 ppm | | US. ACGIH Threshold Limit Values, as amended (12 2010) |
| Naphthalene | PEL | 10 ppm | 50 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| | TWA | 10 ppm | 50 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |
| | TWA | 10 ppm | | US. ACGIH Threshold Limit Values, as amended (2008) |
| | STEL | 15 ppm | 75 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | REL | 10 ppm | 50 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005) |
| | STEL | 15 ppm | 75 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989) |

Biological Limit Values

| Chemical Identity | Exposure Limit Values | Source |
|---|--------------------------------|---------------------|
| Benzene, dimethyl- (Methylhippuric acids: Sampling time: End of shift.) | 1.5 g/g (Creatinine in urine) | ACGIH BEL (03 2013) |
| Benzene, ethyl- (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.) | 0.15 g/g (Creatinine in urine) | ACGIH BEL (02 2014) |

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

- General information:** Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
- Eye/face protection:** Wear safety glasses with side shields (or goggles).
- Skin Protection**
- Hand Protection:** No data available.
- Other:** Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
- Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
- Hygiene measures:** Observe good industrial hygiene practices. Avoid contact with eyes. When using do not smoke. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

- Physical state:** liquid
- Form:** Spray Aerosol
- Color:** No data available.
- Odor:** No data available.
- Odor threshold:** No data available.
- pH:** No data available.
- Melting point/freezing point:** No data available.
- Initial boiling point and boiling range:** No data available.
- Flash Point:** Estimated 27 °C
- Evaporation rate:** No data available.
- Flammability (solid, gas):** No data available.

Upper/lower limit on flammability or explosive limits

- Flammability limit - upper (%):** No data available.
- Flammability limit - lower (%):** No data available.

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| Explosive limit - upper (%): | No data available. |
| Explosive limit - lower (%): | No data available. |
| Vapor pressure: | 3,447 - 4,136 hPa (20 °C) 5,515 - 6,894 hPa (54 °C) |
| Vapor density: | No data available. |
| Density: | No data available. |
| Relative density: | No data available. |
| Solubility(ies) | |
| Solubility in water: | No data available. |
| Solubility (other): | No data available. |
| Partition coefficient (n-octanol/water): | No data available. |
| Auto-ignition temperature: | No data available. |
| Decomposition temperature: | No data available. |
| Viscosity: | No data available. |

10. Stability and reactivity

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|--|---|
| Reactivity: | No data available. |
| Chemical Stability: | Material is stable under normal conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | Avoid heat or contamination. |
| Incompatible Materials: | No data available. |
| Hazardous Decomposition Products: | No data available. |

11. Toxicological information

Information on likely routes of exposure

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|----------------------|--|
| Inhalation: | Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes. |
| Skin Contact: | May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. |
| Eye contact: | Causes serious eye irritation. |
| Ingestion: | May be ingested by accident. Ingestion may cause irritation and malaise. |

Symptoms related to the physical, chemical and toxicological characteristics

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|----------------------|--------------------|
| Inhalation: | No data available. |
| Skin Contact: | No data available. |
| Eye contact: | No data available. |
| Ingestion: | No data available. |

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

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|----------------------|--|
| Oral Product: | Not classified for acute toxicity based on available data. |
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Specified substance(s):

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|--|----------------------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | LD 50 (Rat): > 5,000 mg/kg |
| Distillates, Petroleum, Hydrotreated Light Naphthenic | LD 50 (Rat): > 5,000 mg/kg |
| Distillates (petroleum), hydrotreated light | LD 50 (Rat): > 5,000 mg/kg |
| Distillates (petroleum), hydrotreated middle | LD 50 (Rat): > 5,000 mg/kg |
| Oils, pine | LD 50: > 2,000 mg/kg |
| Terpineol | LD 50 (Rat): > 2,000 mg/kg |
| Ethanol, 2-(2-butoxyethoxy)- | LD 50 (Mouse): 2,410 mg/kg |
| Benzene, 1,2,4-trimethyl- | LD 50 (Rat): 6,000 mg/kg |

Dermal

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

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|--|-------------------------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | LD 50 (Rabbit): > 2,000 mg/kg |
| Distillates, Petroleum, Hydrotreated Light Naphthenic | LD 50 (Rabbit): > 5,000 mg/kg |
| Distillates (petroleum), hydrotreated light | LD 50 (Rabbit): > 2,000 mg/kg |
| Distillates (petroleum), hydrotreated middle | LD 50 (Rabbit): > 2,000 mg/kg |
| Oils, pine | LD 50: > 2,000 mg/kg |
| Terpineol | LD 50 (Rat): > 2,000 mg/kg |
| Ethanol, 2-(2-butoxyethoxy)- | LD 50 (Rabbit): 2,764 mg/kg |
| Benzene, 1,2,4-trimethyl- | LD 50 (Rat): 3,440 mg/kg |

Inhalation

Product: ATEmix: 299.59 mg/l
ATEmix : 51.22 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s):

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| Distillates (petroleum), hydrotreated heavy naphthenic | NOAEL (Rat(Female, Male), Inhalation): > 980 mg/m3 Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Dermal, 13 Weeks): >= 2,000 mg/kg Dermal Experimental result, Key study |
| Distillates, Petroleum, Hydrotreated Light Naphthenic | NOAEL (Rat(Female, Male), Inhalation): 220 mg/m3 Inhalation Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal): 1,000 mg/kg Dermal Experimental result, Key study |
| Distillates (petroleum), hydrotreated light | NOAEL (Rat(Female, Male), Inhalation): >= 24 mg/m3 Inhalation Experimental result, Key study NOAEL (Rat(Female), Oral, 70 - 147 d): 750 mg/kg Oral Experimental result, Key study |
| Distillates (petroleum), hydrotreated middle | LOAEL (Rat(Female, Male), Inhalation): 24 mg/m3 Inhalation Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal): 1,000 mg/kg Dermal Experimental result, Key study |
| Terpineol | NOAEL (Rat(Female), Oral, 5 - 7 Weeks): 250 mg/kg Oral Experimental result, Key study NOAEL (Rat(Male), Oral, 5 - 7 Weeks): 250 mg/kg Oral Experimental result, Key study |
| Ethanol, 2-(2-butoxyethoxy)- | NOAEL (Rat(Female, Male), Inhalation, 90 - 120 d): 14 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Oral, 90 d): 250 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female, Male), Dermal, 13 Weeks): > 2,000 mg/kg Dermal Experimental result, Key study |
| Benzene, 1,2,4-trimethyl- | NOAEL (Rat(Female, Male), Oral, 90 - 91 d): 600 mg/kg Oral Read-across from supporting substance (structural analogue or surrogate), Key study |

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

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|--|---|
| Distillates (petroleum), hydrotreated heavy naphthenic | in vivo (Rabbit): Not irritant Experimental result, Key study |
| Distillates, Petroleum, Hydrotreated Light Naphthenic | in vivo (Rabbit): Not irritant Experimental result, Key study |
| Distillates (petroleum), hydrotreated light | in vivo (Rabbit): Not irritant Experimental result, Key study |
| Distillates (petroleum), hydrotreated middle | in vivo (Rabbit): Not irritant Experimental result, Key study |
| Terpineol | in vivo (Rabbit): Irritating Experimental result, Key study |
| Ethanol, 2-(2-butoxyethoxy)- | in vivo (Rabbit): Not irritant Experimental result, Supporting study |
| Benzene, 1,2,4-trimethyl- | in vivo (Rabbit): Irritating Read-across from supporting substance (structural analogue or surrogate), Supporting study |

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

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| Distillates (petroleum), hydrotreated heavy naphthenic | Rabbit, 48 hrs: Not irritating |
| Distillates, Petroleum, Hydrotreated Light Naphthenic | Rabbit, 48 hrs: Not irritating |
| Distillates (petroleum), hydrotreated light | Rabbit, 24 - 72 hrs: Not irritating |
| Distillates (petroleum), hydrotreated middle | Rabbit, 24 hrs: Not irritating |
| Terpineol | Rabbit, 24 - 72 hrs: Irritating |
| Ethanol, 2-(2-butoxyethoxy)- | Rabbit, 24 - 72 hrs: Highly irritating |

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

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|--|--|
| Distillates (petroleum), hydrotreated heavy naphthenic | Skin sensitization:, in vivo (Guinea pig): Non sensitising |
| Distillates, Petroleum, Hydrotreated Light Naphthenic | Skin sensitization:, in vivo (Guinea pig): Non sensitising |
| Distillates (petroleum), hydrotreated light | Skin sensitization:, in vivo (Guinea pig): Non sensitising |
| Distillates (petroleum), hydrotreated middle | Skin sensitization:, in vivo (Guinea pig): Non sensitising |
| Terpineol | Skin sensitization:, in vivo (Guinea pig): Non sensitising |
| Ethanol, 2-(2-butoxyethoxy)- | Skin sensitization:, in vivo (Guinea pig): Non sensitising |
| Benzene, 1,2,4-trimethyl- | Skin sensitization:, in vivo (Guinea pig): Non sensitising |

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Specified substance(s):

Stoddard solvent Nervous System - Category 1

Aspiration Hazard

Product: May be fatal if swallowed and enters airways. May be fatal if swallowed and enters airways.

Other effects: No data available.

| |
|-----------------------------------|
| 12. Ecological information |
|-----------------------------------|

Ecotoxicity:**Acute hazards to the aquatic environment:****Fish**

Product: No data available.

Specified substance(s):

Distillates (petroleum),
hydrotreated heavy
naphthenic LL 50 (Pimephales promelas, 96 h): > 100 mg/l Experimental result, Key study

Distillates, Petroleum,
Hydrotreated Light
Naphthenic LL 50 (Pimephales promelas, 96 h): > 100 mg/l Experimental result, Key study

Terpineol LC 50 (Danio rerio, 96 h): +/- 62 - 80 mg/l Experimental result, Key study

Ethanol, 2-(2-
butoxyethoxy)- LC 50 (Pimephales promelas, 96 h): 2,400 mg/l Experimental result, Supporting study

Benzene, 1,2,4-trimethyl- LC 50 (Pimephales promelas, 96 h): 7.72 mg/l Experimental result, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Distillates (petroleum),
hydrotreated heavy
naphthenic EC 50 (Daphnia magna, 48 h): > 10,000 mg/l Experimental result, Key study
NOAEL (Daphnia magna, 48 h): >= 10,000 mg/l Experimental result, Key study

Distillates, Petroleum,
Hydrotreated Light
Naphthenic EC 50 (Daphnia magna, 48 h): > 10,000 mg/l Experimental result, Key study
NOAEL (Daphnia magna, 48 h): >= 10,000 mg/l Experimental result, Key study

Oils, pine EC 50 (48 h): < 10 mg/l estimation

Terpineol LC 50 (Daphnia magna): 73 mg/l Experimental result, Key study

Ethanol, 2-(2-butoxyethoxy)- LC 50 (Daphnia magna, 48 h): +/- 1,743 mg/l QSAR QSAR, Supporting study

Benzene, 1,2,4-trimethyl- LC 50 (Daphnia magna, 48 h): 3.6 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated heavy naphthenic NOAEL (Oncorhynchus mykiss): >= 1,000 mg/l QSAR QSAR, Supporting study

Distillates, Petroleum, Hydrotreated Light Naphthenic NOAEL (Oncorhynchus mykiss): >= 1,000 mg/l QSAR QSAR, Supporting study

Distillates (petroleum), hydrotreated light NOAEL (Oncorhynchus mykiss): 0.098 mg/l QSAR QSAR, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated heavy naphthenic NOAEL (Daphnia magna): 10 mg/l Experimental result, Key study

Distillates, Petroleum, Hydrotreated Light Naphthenic NOAEL (Daphnia magna): 10 mg/l Experimental result, Key study

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated heavy naphthenic 31 % (28 d) Detected in water. Read-across based on grouping of substances (category approach), Supporting study
2 - 4 % (28 d) Detected in water. Experimental result, Supporting study

Distillates, Petroleum, Hydrotreated Light Naphthenic 31 % (28 d) Detected in water. Experimental result, Supporting study
2 - 8 % (28 d) Detected in water. Experimental result, Supporting study

Distillates (petroleum), hydrotreated light 61 % Detected in water. Experimental result, Supporting study

Distillates (petroleum), hydrotreated middle 41.96 % Detected in water. Experimental result, Key study

Oils, pine Animal and vegetable fats and oils are biodegradable.

Terpineol 80 % (28 d) Detected in water. Experimental result, Key study

Ethanol, 2-(2-butoxyethoxy)- 85 % (28 d) Detected in water. Experimental result, Key study

Benzene, 1,2,4-trimethyl- 92 % (28 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

Terpineol Bioconcentration Factor (BCF): 24.13 Aquatic sediment QSAR, Key study

Benzene, 1,2,4-trimethyl- Cyprinus carpio, Bioconcentration Factor (BCF): 33 - < 275 Aquatic sediment Experimental result, Supporting study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

| | |
|--|--------------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | No data available. |
| Distillates, Petroleum, Hydrotreated Light Naphthenic | No data available. |
| Distillates (petroleum), hydrotreated light | No data available. |
| Distillates (petroleum), hydrotreated middle | No data available. |
| Oils, pine | No data available. |
| Terpineol | No data available. |
| Ethanol, 2-(2-butoxyethoxy)- | No data available. |
| Benzene, 1,2,4-trimethyl- | No data available. |
| Stoddard solvent | No data available. |
| Carbon dioxide | No data available. |

Other adverse effects: Harmful to aquatic organisms.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated Packaging: No data available.

14. Transport information

DOT

| | |
|-------------------------------|---------------------|
| UN Number: | UN 1950 |
| UN Proper Shipping Name: | Aerosols, flammable |
| Transport Hazard Class(es) | |
| Class: | 2.1 |
| Label(s): | – |
| Packing Group: | II |
| Marine Pollutant: | No |
| Environmental Hazards: | No |
| Marine Pollutant | No |
| Special precautions for user: | Not regulated. |

IMDG

UN Number: UN 1950
UN Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es)
Class: 2
Label(s): –
EmS No.:
Packing Group: –

Environmental Hazards: No
Marine Pollutant: No

Special precautions for user: Not regulated.

IATA

UN Number: UN 1950
Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es):
Class: 2.1
Label(s): –
Packing Group: –

Environmental Hazards: No
Marine Pollutant: No

Special precautions for user: Not regulated.

| |
|-----------------------------------|
| 15. Regulatory information |
|-----------------------------------|

US Federal Regulations

Restrictions on use: Not known.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|---------------------------|----------------------------|
| 2-Butanol | lbs. 100 |
| Nonane | lbs. 100 |
| Benzene, (1-methylethyl)- | lbs. 5000 |
| Benzene, dimethyl- | lbs. 100 |
| Benzene, ethyl- | lbs. 1000 |
| Naphthalene | lbs. 100 |

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Fire Hazard
Immediate (Acute) Health Hazards
Delayed (Chronic) Health Hazard
Flammable (gases, aerosols, liquids, or solids)
Skin Corrosion or Irritation
Serious eye damage or eye irritation
Respiratory or Skin Sensitization
Specific target organ toxicity (single or repeated exposure)
Aspiration Hazard

SARA 302 Extremely Hazardous Substance

| <u>Chemical Identity</u> | <u>Reportable quantity</u> | <u>Threshold Planning Quantity</u> |
|---|----------------------------|------------------------------------|
| Distillates (petroleum), hydrotreated light | | |

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

None present or none present in regulated quantities.

SARA 313 (TRI Reporting)

| <u>Chemical Identity</u> | <u>Reporting threshold for other users</u> | <u>Reporting threshold for manufacturing and processing</u> |
|------------------------------|--|---|
| Ethanol, 2-(2-butoxyethoxy)- | N230 lbs | N230 lbs. |
| Benzene, 1,2,4-trimethyl- | lbs | lbs. |

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|--------------------------------|
| Benzene, dimethyl- | Reportable quantity: 100 lbs. |
| Benzene, ethyl- | Reportable quantity: 1000 lbs. |
| Naphthalene | Reportable quantity: 100 lbs. |

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

| | |
|---------------------------|-----------------------|
| Benzene, (1-methylethyl)- | Carcinogenic. 05 2011 |
| Benzene, ethyl- | Carcinogenic. 05 2011 |
| Naphthalene | Carcinogenic. 05 2011 |

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity
Distillates (petroleum), hydrotreated heavy naphthenic
Distillates, Petroleum, Hydrotreated Light Naphthenic
Distillates (petroleum), hydrotreated light
Distillates (petroleum), hydrotreated middle
Oils, pine
Ethanol, 2-(2-butoxyethoxy)-
Benzene, 1,2,4-trimethyl-
Stoddard solvent
Carbon dioxide

US. Massachusetts RTK - Substance List

Chemical Identity
Distillates, Petroleum, Hydrotreated Light Naphthenic

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Distillates (petroleum), hydrotreated heavy naphthenic
Distillates, Petroleum, Hydrotreated Light Naphthenic
Distillates (petroleum), hydrotreated light
Distillates (petroleum), hydrotreated middle
Ethanol, 2-(2-butoxyethoxy)-
Benzene, 1,2,4-trimethyl-
Stoddard solvent
Carbon dioxide

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol

Distillates (petroleum), hydrotreated light

Stockholm convention

Distillates (petroleum), hydrotreated light

Rotterdam convention

Distillates (petroleum), hydrotreated light

Kyoto protocol

Inventory Status:

| | |
|--|--|
| Australia AICS: | On or in compliance with the inventory |
| Canada DSL Inventory List: | On or in compliance with the inventory |
| Canada NDSL Inventory: | Not in compliance with the inventory. |
| Ontario Inventory: | On or in compliance with the inventory |
| China Inv. Existing Chemical Substances: | On or in compliance with the inventory |
| Japan (ENCS) List: | Not in compliance with the inventory. |
| Japan ISHL Listing: | Not in compliance with the inventory. |
| Japan Pharmacopoeia Listing: | Not in compliance with the inventory. |
| Korea Existing Chemicals Inv. (KECI): | Not in compliance with the inventory. |
| Mexico INSQ: | Not in compliance with the inventory. |
| New Zealand Inventory of Chemicals: | On or in compliance with the inventory |
| Philippines PICCS: | On or in compliance with the inventory |
| Taiwan Chemical Substance Inventory: | On or in compliance with the inventory |
| US TSCA Inventory: | On or in compliance with the inventory |
| EINECS, ELINCS or NLP: | Not in compliance with the inventory. |

16. Other information, including date of preparation or last revision

| | |
|------------------------------|---|
| Issue Date: | 07/08/2020 |
| Revision Information: | No data available. |
| Version #: | 1.0 |
| Further Information: | No data available. |
| Disclaimer: | This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment. |