# Metal Polish

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)
Issue date: 9/18/2025 Revision date: 9/10/2026 Supersedes: 3/24/2026 Version: 2.1

## SECTION 1 Identification

### 1.1. Product identifier

Product form : Mixture
Product name : Metal Polish
Part Number : 10155

### 1.2. Other means of identification

No additional information available

### 1.3. Recommended use of the chemical and restrictions on use

Recommended use : Metal polish/tarnish remover
Restrictions on use : No additional information available

### 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. |
| Skin sensitization, Category 1 | H317 | May cause an allergic skin reaction. |
| Reproductive toxicity, Category 1B | H360 | May damage fertility or the unborn child. |
| Aspiration hazard, Category 1 | H304 | May be fatal if swallowed and enters airways. |
| Hazardous to the aquatic environment — Acute Hazard, Category 3 | H402 | Harmful to aquatic life. |
| Hazardous to the aquatic environment — Chronic Hazard, Category 3 | H412 | Harmful 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) : Danger
Hazard statements (GHS US) : H227 - Combustible liquid
H304 - May be fatal if swallowed and enters airways
H317 - May cause an allergic skin reaction

| | | |
|---|---|---|
| | | H360 - May damage fertility or the unborn child<br>H402 - Harmful to aquatic life<br>H412 - Harmful to aquatic life with long lasting effects |
| Precautionary statements (GHS US) | : | P201 - Obtain special instructions before use.<br>P202 - Do not handle until all safety precautions have been read and understood.<br>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.<br>P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.<br>P272 - Contaminated work clothing must not be allowed out of the workplace.<br>P273 - Avoid release to the environment.<br>P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.<br>P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or a doctor.<br>P302+P352 - IF ON SKIN: Wash with plenty of water.<br>P308+P313 - If exposed or concerned: Get medical advice/attention.<br>P321 - Specific treatment (see supplemental first aid instruction on this label).<br>P331 - Do NOT induce vomiting.<br>P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.<br>P362+P364 - Take off contaminated clothing and wash it before reuse.<br>P370+P378 - In case of fire: Use appropriate media to extinguish.<br>P403 - Store in a well-ventilated place.<br>P405 - Store locked up.<br>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 light | CAS-No.: 64742-47-8 | 15 - 40* | Asp. Tox. 1, H304 |
| Solvent naphtha (petroleum), heavy aliph. | CAS-No.: 64742-96-7 | 15 - 40* | Asp. Tox. 1, H304 |
| 2-Pyrrolidinone, 1-methyl- | CAS-No.: 872-50-4 | 0.5 - 1.5* | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Repr. 1B, H360<br>STOT SE 3, H335 |

| Name | Product identifier | % | GHS US classification |
|---|---|---|---|
| D-Limonene | CAS-No.: 5989-27-5 | 0.1 - 1* | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Asp. Tox. 1, H304<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 |

*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 : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.
Personal protection for first-aid responders. : First-aiders should consider self-protection and use the recommended personal protective equipment (see section 8).

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

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : May cause an allergic skin reaction.
Symptoms/effects after eye contact : None under normal conditions.
Symptoms/effects after ingestion : Risk of lung edema.
Chronic symptoms : May damage fertility or the unborn child.

### 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.

### 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 : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. 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. Notify authorities if product enters sewers or public waters.

### 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 : Ensure good ventilation of the work station. 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. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.
Hygiene measures : Separate working clothes from town clothes. Launder separately. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. 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.

## SECTION 8 Exposure controls/personal protection

### 8.1. Control parameters

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| **USA - ACGIH® - Biological Exposure Indices** | |
| Local name | N-Methyl-2-pyrrolidone |
| BEI | 100 mg/l Parameter: 5-Hydroxy-N-methyl-2-pyrrolidone - Medium: urine - Sampling time: End of shift |

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| Regulatory reference | ACGIH 2025 |
| **USA - Cal/OSHA - Occupational Exposure Limits** | |
| Local name | N-Methylpyrrolidone (NMP); 1-Methyl-2-pyrrolidone; N-Methyl-2-pyrrolidone; 1-Methyl-2-pyrrolidinone |
| Cal/OSHA PEL (OEL TWA) | 4 mg/m³ |
| | 1 ppm |
| Remark (Cal/OSHA) | S - Skin notation and Protecting Clothing |
| Regulatory reference | California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1) |

### 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):
White Colourless to light yellow On exposure to air: yellow to brown Colourless Silvery-white
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:
Odourless Characteristic odour Mild odour Amine-like odour Smell of fish Lemon odour Floral odour
Odor threshold : No data available
pH : No data available

| | | |
|---|---|---|
| Melting point | : | Not applicable |
| Freezing point | : | No data available |
| Boiling point | : | No data available |
| Flash point | : | 89 °C |
| Flammability (solid, gas) | : | Not applicable. |
| Vapor pressure | : | No data available |
| Relative vapor density at 20°C | : | 4.8 |
| Relative density | : | 0.82 |
| Solubility | : | No data available |
| Partition coefficient n-octanol/water (Log Pow) | : | No data available |
| Auto-ignition temperature | : | 215.5 °C |
| Decomposition temperature | : | No data available |
| Viscosity, kinematic | : | No data available |
| Explosion limits | : | Lower explosion limit: 0.6 Vol-%<br>Upper explosion limit: 7 Vol-% |
| 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) | : | Not classified |
| Acute toxicity (dermal) | : | Not classified |
| Acute toxicity (inhalation) | : | Not classified |

| 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 |

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

| Solvent naphtha (petroleum), heavy aliph. (64742-96-7) | |
|---|---|
| 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 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 - |

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| LD50 oral rat | 4150 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LD50 oral | 3500 mg/kg |
| LD50 dermal rat | > 5000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) |
| LD50 dermal | 6000 mg/kg |
| LC50 Inhalation - Rat | > 5.1 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) |
| LC50 Inhalation - Rat (Dust/Mist) | 5.1 mg/l/4h |
| LC50 Inhalation - Rat (Vapors) | > 5.1 mg/l/4h |

| D-Limonene (5989-27-5) | |
|---|---|
| LD50 oral rat | > 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s)) |
| LD50 oral | 4400 mg/kg |
| LD50 dermal rabbit | > 5000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Read-across, Dermal, 7 day(s)) |
| LD50 dermal | 5000 mg/kg |
| LC50 Inhalation - Rat | > 5.43 mg/l |
| ATE US (oral) | 4400 mg/kg body weight |
| ATE US (dermal) | 5000 mg/kg body weight |

Skin corrosion/irritation : Not classified

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| pH | No data available in the literature |

| D-Limonene (5989-27-5) | |
|---|---|
| pH | 4 (5 %) |

Serious eye damage/irritation : Not classified

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| pH | No data available in the literature |

| D-Limonene (5989-27-5) | |
|---|---|
| pH | 4 (5 %) |

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| NOAEL (chronic,oral,animal/male,2 years) | ≈ 89 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity) |
| NOAEL (chronic,oral,animal/female,2 years) | ≈ 221 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity) |

| D-Limonene (5989-27-5) | |
|---|---|
| IARC group | 3 - Not classifiable |

Reproductive toxicity : May damage 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)] |

| Solvent naphtha (petroleum), heavy aliph. (64742-96-7) | |
|---|---|
| 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)] |

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| LOAEL (animal/female, F0/P) | 500 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |
| NOAEL (animal/male, F0/P) | ≥ 500 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |
| NOAEL (animal/female, F0/P) | 350 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |

| D-Limonene (5989-27-5) | |
|---|---|
| NOAEL (animal/female, F0/P) | 600 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other: |

STOT-single exposure : Not classified

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| STOT-single exposure | May cause respiratory irritation. |

STOT-repeated exposure : Not classified

| 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) |

| Solvent naphtha (petroleum), heavy aliph. (64742-96-7) | |
|---|---|
| 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) |
| NOAEC (inhalation,rat,vapor,90 days) | ≥ 0.024 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study) |

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| LOAEL (dermal,rat/rabbit,90 days) | 1653 mg/kg body weight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study) |
| NOAEL (oral,rat,28 days) | 820 mg/kg bw/day |
| NOAEL (dermal,rat/rabbit,28 days) | < 413 mg/kg bw/day |
| NOAEC (inhalation, rat, 28 days) | 0.1 mg/l |
| NOAEL (oral,rat,90 days) | 169 mg/kg bw/day |
| NOAEL (dermal,rat/rabbit,90 days) | 826 mg/kg body weight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study) |
| NOAEC (inhalation, rat, 90 days) | 0.5 mg/l |

Aspiration hazard : May be fatal if swallowed and enters airways.

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| Viscosity, kinematic | No data available in the literature |
| **D-Limonene (5989-27-5)** | |
| Viscosity, kinematic | No data available in the literature |

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : May cause an allergic skin reaction.
Symptoms/effects after eye contact : None under normal conditions.
Symptoms/effects after ingestion : Risk of lung edema.
Chronic symptoms : May damage fertility or the unborn child.

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

Ecology - general : Harmful to aquatic life. Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute) : Harmful to aquatic life.
Hazardous to the aquatic environment, long–term (chronic) : Harmful to aquatic life with long lasting effects.

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| LC50 - Fish [1] | > 500 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Lethal) |
| EC50 - Crustacea [1] | > 1000 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value, Lethal) |
| EC50 72h - Algae [1] | 600.5 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| EC50 72h - Algae [2] | 672.8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| ErC50 algae | 600.5 mg/l (DIN 38412-9, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration) |
| LOEC (chronic) | 25 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC (chronic) | 12.5 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic crustacea | 12.5 mg/l |

| D-Limonene (5989-27-5) | |
|---|---|
| LC50 - Fish [1] | 720 µg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Measured concentration) |
| EC50 - Crustacea [1] | 0.31 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Measured concentration) |
| LC50 - Fish [2] | 702 µg/l Test organisms (species): Pimephales promelas |
| EC50 - Crustacea [2] | 0.51 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | 0.32 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) |
| EC50 72h - Algae [2] | 0.214 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) |
| ErC50 algae | 0.32 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Measured concentration) |
| NOEC chronic algae | 0.05 mg/l |

## 12.2. Persistence and degradability

| Metal Polish | |
|---|---|
| Persistence and degradability | Not rapidly degradable |

| Distillates (petroleum), hydrotreated light (64742-47-8) | |
|---|---|
| Persistence and degradability | Not rapidly degradable |

| Solvent naphtha (petroleum), heavy aliph. (64742-96-7) | |
|---|---|
| Persistence and degradability | Not rapidly degradable |

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| Persistence and degradability | Readily biodegradable in the soil, Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 1.07 g $O_2$/g substance |
| Chemical oxygen demand (COD) | 1.56 g $O_2$/g substance |
| ThOD | 1.9 g $O_2$/g substance |

| D-Limonene (5989-27-5) | |
|---|---|
| Persistence and degradability | Readily biodegradable in water. |
| ThOD | 3.29 g $O_2$/g substance |

### 12.3. Bioaccumulative potential

| Distillates (petroleum), hydrotreated light (64742-47-8) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | 3.3 – 6 Source: IUCLID |

| Solvent naphtha (petroleum), heavy aliph. (64742-96-7) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | 3.3 – 6 Source: IUCLID |

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| BCF - Fish [1] | 3.16 l/kg |
| Partition coefficient n-octanol/water (Log Pow) | -0.46 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C) |
| Bioaccumulative potential | Not bioaccumulative. |

| D-Limonene (5989-27-5) | |
|---|---|
| BCF - Fish [1] | 865 l/kg (BCFBAF v3.01, Pisces, QSAR, Fresh weight) |
| Partition coefficient n-octanol/water (Log Pow) | 4.4 (Experimental value, Equivalent or similar to OECD 117, 37 °C) |
| Partition coefficient n-octanol/water (Log Kow) | 4.57 |
| Bioaccumulative potential | Potential for bioaccumulation (4 ≤ Log Kow ≤ 5). |

### 12.4. Mobility in soil

| 2-Pyrrolidinone, 1-methyl- (872-50-4) | |
|---|---|
| Surface tension | No data available in the literature |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 0.87 (log Koc, SRC PCKOCWIN v2.0, QSAR) |
| Ecology - soil | Highly mobile in soil. |

| D-Limonene (5989-27-5) | |
|---|---|
| Surface tension | No data available in the literature |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 3 – 3.8 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Low potential for mobility 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** | | | |
| Not regulated for transport | | | |
| **14.2. Proper Shipping Name** | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| **14.3. Transport hazard class(es)** | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| **14.4. Packing group** | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| **14.5. Environmental hazards** | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | |

### 14.6. Transport in bulk

Not applicable

### 14.7. Special precautions for user

**DOT**
Not regulated

**TDG**
Not regulated

**IMDG**
Not regulated

**IATA**
Not regulated

## 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 | | |
| Contains chemical(s) subject to TSCA 12b export notification if product is shipped outside the U.S | | |
| 2-Pyrrolidinone, 1-methyl- | CAS-No. 872-50-4 | 0.5 - 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. | | |
| 2-Pyrrolidinone, 1-methyl- | CAS-No. 872-50-4 | 0.5 - 1.5*% |

### 15.2. International regulations

**CANADA**

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

Listed on the Canadian DSL (Domestic Substances List)

**Solvent naphtha (petroleum), heavy aliph. (64742-96-7)**

Listed on the Canadian DSL (Domestic Substances List)

**2-Pyrrolidinone, 1-methyl- (872-50-4)**

Listed on the Canadian DSL (Domestic Substances List)

**D-Limonene (5989-27-5)**

Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations**

No additional information available

**National regulations**

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

Listed on INSQ (Mexican National Inventory of Chemical Substances)

**2-Pyrrolidinone, 1-methyl- (872-50-4)**

Listed on INSQ (Mexican National Inventory of Chemical Substances)

**D-Limonene (5989-27-5)**

Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. State regulations

**WARNING:** This product can expose you to N-Methylpyrrolidone, which is known to the State of California to cause 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 : 9/10/2026
Issue date : 9/18/2025

| **Full text of hazard classes and H-statements** | |
|---|---|
| H226 | Flammable liquid and vapor |
| H227 | Combustible liquid |
| H304 | May be fatal if swallowed and enters airways |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H319 | Causes serious eye irritation |

| Full text of hazard classes and H-statements | |
|---|---|
| H335 | May cause respiratory irritation |
| H360 | May damage fertility or the unborn child |
| H400 | Very toxic to aquatic life |
| H402 | Harmful to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |
| H412 | Harmful to aquatic life with long lasting effects |

Safety Data Sheet (SDS), USA

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.