



# SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

## 1. Identification

**Product identifier:** DRY MOLY LUBRICANT

**Other means of identification**

**SDS number:** RE1000046046

**Recommended restrictions**

**Recommended use:** Lubricant

**Restrictions on use:** Not known.

**Manufacturer/Importer/Distributor Information**

**Company Name:** Sprayway, Inc.  
**Address:** 1000 INTEGRAM DR.  
Pacific, MO 63069  
US  
**Telephone:** 1-630-628-3000

**Emergency telephone number:** 1-866-836-8855

## 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  
Toxic to reproduction Category 2  
Specific Target Organ Toxicity -  
Single Exposure Category 3  
(Narcotic effect.)  
Specific Target Organ Toxicity -  
Repeated Exposure Category 2  
Aspiration Hazard Category 1

**Environmental Hazards**

Acute hazards to the aquatic  
environment Category 2  
Chronic hazards to the aquatic  
environment Category 2

**Label Elements**

**Hazard Symbol:**



**Signal Word:**

Danger



**Hazard Statement:** Extremely flammable aerosol.  
Causes skin irritation.  
Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child.  
May cause drowsiness or dizziness.  
May cause damage to organs through prolonged or repeated exposure.  
May be fatal if swallowed and enters airways.  
Toxic to aquatic life with long lasting effects.

**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. Pressurized container: Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid release to the environment.

**Response:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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 occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Take off contaminated clothing. Collect spillage.

**Storage:** Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up. Store in a well-ventilated place. Keep container tightly closed.

**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 (%)*
Naphtha, (Petroleum), Hydrotreated Light	64742-49-0	10 - <25%
2-Propanone	67-64-1	20 - <50%
Propane	74-98-6	10 - <20%
Butane	106-97-8	10 - <20%
Heptane	142-82-5	5 - <10%
Benzene, methyl-	108-88-3	3 - <5%
Distillates (petroleum), hydrotreated light	64742-47-8	1 - <5%
Ligroine	8032-32-4	1 - <5%
Molybdenum sulfide (MoS2)	1317-33-5	1 - <5%
Cyclohexane, methyl-	108-87-2	1 - <5%

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



The exact concentration has been withheld as a trade secret.

#### 4. First-aid measures

##### Description of necessary first-aid measures

- Inhalation:** Move to fresh air.
- Skin Contact:** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. 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.
- 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.
- Personal Protection for First-aid Responders:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

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

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

##### Indication of immediate medical attention and special treatment needed

- Treatment:** Get medical attention if symptoms occur.

#### 5. Fire-fighting measures

- 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.

##### Suitable (and unsuitable) extinguishing media

- 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.

- 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

- 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

<b>Personal precautions, protective equipment and emergency procedures:</b>	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.
<b>Accidental release measures:</b>	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.
<b>Methods and material for containment and cleaning up:</b>	Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.
<b>Environmental Precautions:</b>	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer.

## 7. Handling and storage

### Handling

<b>Technical measures (e.g. Local and general ventilation):</b>	No data available.
<b>Safe handling advice:</b>	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. Pressurized container: Do not pierce or burn, even after use. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with skin.
<b>Contact avoidance measures:</b>	No data available.

### Storage

<b>Safe storage conditions:</b>	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
<b>Safe packaging materials:</b>	No data available.
<b>Storage Temperature:</b>	No data available.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Naphtha, (Petroleum), Hydrotreated Light	REL	100 ppm 400 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	100 ppm 400 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	PEL	100 ppm 400 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
2-Propanone	STEL	1,000 ppm 2,400 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended



	PEL	1,000 ppm	2,400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	250 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	750 ppm	1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	500 ppm		US. ACGIH Threshold Limit Values, as amended
	REL	250 ppm	590 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Propane	REL	1,000 ppm	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	1,000 ppm	1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	1,000 ppm	1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Butane	REL	800 ppm	1,900 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	STEL	1,000 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	800 ppm	1,900 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Heptane	TWA	400 ppm	1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	85 ppm	350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	STEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	400 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	500 ppm		US. ACGIH Threshold Limit Values, as amended
	Ceil_T ime	440 ppm	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, methyl-	STEL	150 ppm	560 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	100 ppm	375 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	100 ppm	375 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	Ceiling	300 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	200 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	MAX. CONC	500 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	STEL	150 ppm	560 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Distillates (petroleum), hydrotreated light	REL		100 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Distillates (petroleum), hydrotreated light - Non-aerosol. - as total hydrocarbon vapor	TWA		200 mg/m3	US. ACGIH Threshold Limit Values, as amended
	TWA		200 mg/m3	US. ACGIH Threshold Limit Values, as amended
Molybdenum sulfide (MoS2) - Inhalable fraction. - as Mo	TWA		10 mg/m3	US. ACGIH Threshold Limit Values, as amended
Molybdenum sulfide (MoS2) - Respirable fraction. - as Mo	TWA		3 mg/m3	US. ACGIH Threshold Limit Values, as amended
Molybdenum sulfide (MoS2) - Total dust. - as Mo	TWA		10 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	PEL		15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Cyclohexane, methyl-	PEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	400 ppm	1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	400 ppm		US. ACGIH Threshold Limit Values, as amended
	REL	400 ppm	1,600 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
2-Propanol	STEL	500 ppm	1,225 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	200 ppm		US. ACGIH Threshold Limit Values, as amended
	REL	400 ppm	980 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	400 ppm	980 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended



	TWA	400 ppm	980 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	400 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	500 ppm	1,225 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Benzene, ethenylmethyl-	REL	100 ppm	480 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	100 ppm	480 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	50 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	100 ppm		US. ACGIH Threshold Limit Values, as amended
	PEL	100 ppm	480 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Benzene, 1,2,4-trimethyl-	TWA	25 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	25 ppm	125 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	25 ppm	125 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Hexane	TWA	50 ppm	180 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	PEL	500 ppm	1,800 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	REL	50 ppm	180 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	50 ppm		US. ACGIH Threshold Limit Values, as amended
Cyclohexane	TWA	100 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	300 ppm	1,050 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	300 ppm	1,050 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	300 ppm	1,050 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Benzene, ethyl-	STEL	125 ppm	545 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	REL	100 ppm	435 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	100 ppm	435 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	STEL	125 ppm	545 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	100 ppm	435 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended
Crystalline Silica - Respirable dust.	REL		0.05 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Crystalline Silica - Respirable.	TWA		2.4 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
	TWA		0.1 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
Crystalline Silica - Respirable fraction.	TWA		0.025 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values, as amended
Crystalline Silica - Respirable dust.	TWA		0.1 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Crystalline Silica - Respirable dust.	TWA		0.05 mg/m <sup>3</sup>	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
Crystalline Silica - Respirable dust.	PEL		0.05 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Crystalline Silica - Respirable dust.	OSHA_ACT		0.025 mg/m <sup>3</sup>	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
Benzene	REL	0.1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	1 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	Ceiling	25 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	TWA	0.5 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	2.5 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	OSHA_ACT	0.5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	TWA	10 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended



	MAX. CONC	50 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	STEL	5 ppm	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	1 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	STEL	1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards, as amended

### Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
2-Propanone (acetone: Sampling time: End of shift.)	25 mg/l (Urine)	ACGIH BEL
Benzene, methyl- (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEL
Benzene, methyl- (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEL
Benzene, methyl- (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEL
2-Propanol (acetone: Sampling time: End of shift at end of work week.)	40 mg/l (Urine)	ACGIH BEL
Benzene, ethyl- (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)	0.15 g/g (Creatinine in urine)	ACGIH BEL
Hexane (2,5-Hexanedion, without hydrolysis: Sampling time: End of shift.)	0.5 mg/l (Urine)	ACGIH BEL
Benzene (S-Phenylmercapturic acid: Sampling time: End of shift.)	25 µg/g (Creatinine in urine)	ACGIH BEL
Benzene (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEL

### Exposure guidelines

Distillates (petroleum), hydrotreated light	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
Hexane	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
Benzene	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.

**Appropriate Engineering Controls** No data available.

### Individual protection measures, such as personal protective equipment

**Eye/face protection:** Wear safety glasses with side shields (or goggles).

### Skin Protection

**Hand Protection:** No data available.

**Skin and Body Protection:** 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:** Avoid contact with eyes. Observe good industrial hygiene practices. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after handling the product.

## 9. Physical and chemical properties

### Appearance

**Physical state:** liquid  
**Form:** Spray Aerosol  
**Color:** No data available.



<b>Odor:</b>	No data available.
<b>Odor Threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Freezing point:</b>	No data available.
<b>Boiling Point:</b>	No data available.
<b>Flash Point:</b>	Estimated -104 °C
<b>Evaporation Rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Explosive limit - upper (%):</b>	Estimated 9.5 %(V)
<b>Explosive limit - lower (%):</b>	Estimated 1.9 %(V)
<b>Vapor pressure:</b>	1,723 - 3,102 hPa (20 °C) 4,136 - 5,515 hPa (54 °C)
<b>Vapor density (air=1):</b>	No data available.
<b>Density:</b>	No data available.
<b>Relative density:</b>	No data available.
<b>Solubility in Water:</b>	No data available.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Self Ignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	No data available.
<b>Kinematic viscosity:</b>	No data available.
<b>Dynamic viscosity:</b>	No data available.
<b>Explosive properties:</b>	No data available.
<b>Oxidizing properties:</b>	No data available.

## 10. Stability and reactivity

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

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.





**Symptoms related to the physical, chemical and toxicological characteristics**

**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)**

**Oral**  
**Product:** ATEmix: 55,807.97 mg/kg

**Dermal**  
**Product:** ATEmix: 5,736.46 mg/kg

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

**Repeated dose toxicity**

**Product:** No data available.

**Components:**

Naphtha, (Petroleum), Hydrotreated Light  
NOAEL (Rat(Female, Male), Inhalation): 10,000 mg/m<sup>3</sup> Inhalation Experimental result, Key study  
LOAEL (Rat(Female, Male), Oral, 13 Weeks): 1,250 mg/kg Oral Read-across based on grouping of substances (category approach), Key study  
NOAEL (Rat(Female, Male), Dermal, 28 d): > 375 mg/kg Dermal Experimental result, Supporting study

2-Propanone  
NOAEL (Rat(Male), Oral, 13 Weeks): 10,000 ppm(m) Oral Experimental result, Key study

Propane  
NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study  
LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study

Butane  
LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study  
NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study

Heptane  
NOAEL (Rat(Male), Inhalation): 12,470 mg/m<sup>3</sup> Inhalation Experimental result, Key study

Benzene, methyl-  
LOAEL (Rat(Female, Male), Oral, 13 Weeks): 1,250 mg/kg (Target Organ(s): Liver, Kidney) Oral Experimental result, Key study  
NOAEL (Rat(Female, Male), Inhalation): 625 ppm(m) Inhalation Experimental result, Key study  
NOAEL (Rat(Female, Male), Inhalation - vapor): 2,355 mg/l Inhalation Experimental result, Key study

Distillates (petroleum), hydrotreated light  
NOAEL (Rat(Female, Male), Inhalation): >= 24 mg/m<sup>3</sup> Inhalation Experimental result, Key study  
NOAEL (Rat(Female), Oral, 70 - 147 d): 750 mg/kg Oral Experimental result, Key study

Ligroine  
NOAEL (Rat(Female, Male), Inhalation, 4 - 20 Weeks): 10,032 mg/m<sup>3</sup> Inhalation Experimental result, Supporting study  
NOAEL (Rat(Female, Male), Dermal, 5 - 28 d): 3,750 mg/kg Dermal Experimental result, Key study



Cyclohexane, methyl- NOAEL (Rat(Female, Male), Inhalation): 1,600 mg/m3 Inhalation  
Experimental result, Key study  
LOAEL (Rat(Female, Male), Oral, 28 d): 1,000 mg/kg Oral Experimental  
result, Key study  
NOAEL (Rat(Female, Male), Oral, 28 d): 250 mg/kg Oral Experimental  
result, Key study

### Skin Corrosion/Irritation

**Product:** No data available.

#### Components:

Naphtha, (Petroleum), Hydrotreated Light 2-Propanone	In vitro (Human): not corrosive in vivo (Rabbit): Not irritant
Heptane	in vivo (Rabbit): Irritating
Benzene, methyl-	in vivo (Rabbit): Irritating
Distillates (petroleum), hydrotreated light	in vivo (Rabbit): Not irritant
Ligroine	In vitro (Human): classification not possible based on data in vivo (Rabbit): Study design not appropriate to classify skin irritation. In vitro (Human): not corrosive
Cyclohexane, methyl-	estimated Irritating.

### Serious Eye Damage/Eye Irritation

**Product:** No data available.

#### Components:

Naphtha, (Petroleum), Hydrotreated Light	Rabbit, 24 - 72 hrs: Not irritating
2-Propanone	Irritating. Rabbit, 24 hrs: Minimum grade of severe eye irritant
Heptane	Rabbit, 24 - 72 hrs: Not irritating
Benzene, methyl-	Rabbit, 24 - 72 hrs: Not irritating
Distillates (petroleum), hydrotreated light	Rabbit, 24 - 72 hrs: Not irritating
Ligroine	Rabbit, 24 - 72 hrs: Not irritating
Cyclohexane, methyl-	Rabbit, 0.5 - 168 hrs: Not irritating

### Respiratory or Skin Sensitization

**Product:** No data available.

#### Components:

Naphtha, (Petroleum), Hydrotreated Light	Skin sensitization:, in vivo (Guinea pig): Non sensitising
2-Propanone	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Heptane	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Benzene, methyl-	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Distillates (petroleum), hydrotreated light	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Ligroine	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Cyclohexane, methyl-	Skin sensitization:, in vivo (Guinea pig): Non sensitising

### Carcinogenicity

**Product:** No data available.



**Components:**  
Cyclohexane, methyl- May cause cancer.

**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), as amended:**  
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.

**Components:**  
Benzene, methyl- Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Components:**  
2-Propanone Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.  
Heptane Narcotic effect. - Category 3 with narcotic effects.  
Benzene, methyl- Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.  
Cyclohexane, methyl- Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Components:**  
Benzene, methyl- Category 2

**Target Organs**

Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

**Aspiration Hazard**

**Product:** No data available.

**Components:**  
Naphtha, (Petroleum), May be fatal if swallowed and enters airways.  
Hydrotreated Light  
Heptane May be fatal if swallowed and enters airways.  
Benzene, methyl- May be fatal if swallowed and enters airways.  
Distillates (petroleum), May be fatal if swallowed and enters airways.  
hydrotreated light  
Ligroine May be fatal if swallowed and enters airways.  
Cyclohexane, methyl- 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.

##### Components:

Naphtha, (Petroleum), Hydrotreated Light	LC 50 (96 h): 8.41 mg/l Experimental result, Key study
2-Propanone	LC 50 (Oncorhynchus mykiss, 96 h): 5,540 mg/l Experimental result, Key study
Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Butane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Benzene, methyl-	LC 50 (Oncorhynchus kisutch, 96 h): 5.5 mg/l Experimental result, Key study
Cyclohexane, methyl-	LC 50 (Oryzias latipes, 96 h): 2.07 mg/l Experimental result, Key study

##### Aquatic Invertebrates

**Product:** No data available.

##### Components:

Naphtha, (Petroleum), Hydrotreated Light	EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study
2-Propanone	LC 50 (Daphnia pulex, 48 h): 8,800 mg/l Experimental result, Key study
Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Benzene, methyl-	LC 50 (Water flea (Daphnia magna), 48 h): 54.6 - 174.7 mg/l Mortality LC 50 (Ceriodaphnia dubia, 2 d): 3.78 mg/l Experimental result, Key study
Ligroine	EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Components:

Naphtha, (Petroleum), Hydrotreated Light	NOAEL (Daphnia magna): 2.6 mg/l Other, Key study
Benzene, methyl-	NOAEL (Oncorhynchus kisutch): 1.39 mg/l Experimental result, Key study LOAEL (Oncorhynchus kisutch): 2.77 mg/l Experimental result, Key study
Distillates (petroleum), hydrotreated light	NOAEL (Oncorhynchus mykiss): 0.098 mg/l QSAR QSAR, Key study
Ligroine	NOAEL (Daphnia magna): 2.6 mg/l Other, Key study

##### Aquatic Invertebrates

**Product:** No data available.



**Components:**

Naphtha, (Petroleum), Hydrotreated Light	EC 50 (Daphnia magna): 10 mg/l Experimental result, Key study
2-Propanone	LOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study NOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study
Benzene, methyl-	LOAEL (Ceriodaphnia dubia): 2.76 mg/l Experimental result, Key study NOAEL (Ceriodaphnia dubia): 0.74 mg/l Experimental result, Key study
Ligroine	NOAEL (Daphnia magna): 2.6 mg/l Experimental result, Key study

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**Components:**

Naphtha, (Petroleum), Hydrotreated Light	95 % (10 d) The 10-day window requirement is fulfilled. 90.35 % (28 d) Detected in water. Experimental result, Supporting study
2-Propanone	90.9 % (28 d) Detected in water. Experimental result, Key study
Propane	100 % (385.5 h) Detected in water. Experimental result, Key study 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
Butane	100 % (385.5 h) Detected in water. Experimental result, Key study
Benzene, methyl-	100 % (14 d) Detected in water. Experimental result, Weight of Evidence study 86 % Detected in water. Experimental result, Weight of Evidence study
Distillates (petroleum), hydrotreated light	61 % Detected in water. Experimental result, Supporting study
Cyclohexane, methyl-	> 0 % (28 d) Detected in water. Experimental result, Weight of Evidence study > 0 % (28 d) Detected in water. Experimental result, Weight of Evidence study

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Components:**

Naphtha, (Petroleum), Hydrotreated Light	Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study
2-Propanone	Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment Experimental result, Not specified
Benzene, methyl-	Leuciscus idus, Bioconcentration Factor (BCF): 90 Aquatic sediment Experimental result, Key study



Ligroine Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study

Cyclohexane, methyl- Cyprinus carpio, Bioconcentration Factor (BCF): > 95 - < 321 Aquatic sediment Experimental result, Key study

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Components:**

Naphtha, (Petroleum), Hydrotreated Light Log Kow: > 2.4 - < 5.7 23 °C Yes Experimental result, Key study

**Mobility in soil:** No data available.

**Components:**

Naphtha, (Petroleum), Hydrotreated Light	No data available.
2-Propanone	No data available.
Propane	No data available.
Butane	No data available.
Heptane	No data available.
Benzene, methyl-	No data available.
Distillates (petroleum), hydrotreated light	No data available.
Ligroine	No data available.
Molybdenum sulfide (MoS2)	No data available.
Cyclohexane, methyl-	No data available.

**Other adverse effects:** Toxic to aquatic life with long lasting effects.

**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):	-
EmS No.:	-
Packing Group:	-
Special precautions for user:	None known.

**IATA**

UN Number:	UN 1950
UN Proper Shipping Name:	Aerosols, flammable
Transport Hazard Class(es):	
Class:	2.1
Label(s):	-
Packing Group:	-
Special precautions for user:	None known.
Other information	
Passenger and cargo aircraft:	Allowed. 203
Cargo aircraft only:	Allowed. 203



**IMDG**

UN Number: UN 1950  
UN Proper Shipping Name: Aerosols, flammable  
Transport Hazard Class(es)  
Class: 2.1  
Label(s): -  
EmS No.: F-D, S-U  
Packing Group: -  
Special precautions for user: None known.

The classification shown in this section may be eligible for use of an exception, such as "Limited Quantity", per the dangerous goods regulations. The shipper of this product should consult the applicable mode's regulation for the UN number displayed above to determine if any exceptions are available and may be utilized, at the shipper's discretion.

**15. Regulatory information**

**US Federal Regulations**

Restrictions on use: Not known.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

**US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)**

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended**

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Crystalline Silica	lung effects immune system effects Cancer
Benzene	kidney effects Flammability Cancer Aspiration Eye Blood Skin respiratory tract irritation Central nervous system

**CERCLA Hazardous Substance List (40 CFR 302.4):**

Chemical Identity  
2-Propanone  
ACETONE  
UNLISTED HAZARDOUS WASTES CHARACTERISTIC OF IGNITABILITY  
RCRA HAZARDOUS WASTE NO. D001  
BENZENE, METHYL-  
Distillates (petroleum), hydrotreated light  
HEXANE  
Hexane  
CYCLOHEXANE  
BENZENE,HEXAHYDRO-  
ETHYLBENZENE  
BENZENE



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

**Hazard categories**

Flammable (gases, aerosols, liquids, or solids), Skin Corrosion or Irritation, Serious eye damage or eye irritation, Reproductive toxicity, Specific target organ toxicity (single or repeated exposure), Aspiration Hazard

**US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances**

None present or none present in regulated quantities.

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required**

<u>Chemical Identity</u>	<u>% by weight</u>
Benzene, methyl-	1.0%

**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)**

**US State Regulations**

**US. California Proposition 65**



**WARNING:** This product can expose you to chemicals including, Benzene which is [are] known to the State of California to cause cancer and birth defects or other reproductive harm.

This product can expose you to chemicals including, Benzene, ethyl-Crystalline Silica which is [are] known to the State of California to cause cancer.

This product can expose you to chemicals including, Benzene, methyl-Hexane which is [are] known to the State of California to cause birth defects or other reproductive harm.

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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

Chemical Identity

Naphtha, (Petroleum), Hydrotreated Light  
2-Propanone  
Propane  
Butane  
Heptane  
Benzene, methyl-  
Distillates (petroleum), hydrotreated light  
Ligroine  
Cyclohexane, methyl-

**US. Massachusetts RTK - Substance List**

Chemical Identity

Crystalline Silica  
Benzene





**US. Pennsylvania RTK - Hazardous Substances**

**Chemical Identity**

Naphtha, (Petroleum), Hydrotreated Light  
2-Propanone  
Propane  
Butane  
Heptane  
Benzene, methyl-  
Distillates (petroleum), hydrotreated light  
Ligroine  
Cyclohexane, methyl-

**US. Rhode Island RTK**

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

**International regulations**

**Montreal protocol**

2-Propanone  
Distillates (petroleum), hydrotreated light

**Stockholm convention**

2-Propanone  
Distillates (petroleum), hydrotreated light

**Rotterdam convention**

2-Propanone  
Distillates (petroleum), hydrotreated light

**Kyoto protocol**

**Inventory Status:**

Australia AICS	Not 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	Not in compliance with the inventory.
China Inv. Existing Chemical Substances	Not 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	Not in compliance with the inventory.
Philippines PICCS	Not in compliance with the inventory.
Taiwan Chemical Substance Inventory	Not 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.



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<b>16. Other information, including date of preparation or last revision</b>
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<b>Issue Date:</b>	03/29/2022
<b>Revision Information:</b>	No data available.
<b>Version #:</b>	1.1
<b>Further Information:</b>	No data available.
<b>Disclaimer:</b>	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.