

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** CALUBE-DRY NON-CHLORINATED, MEDIUM DRY MOLY CHAIN LUBRICANT

### Other means of identification

**SDS number:** RE1000017106

### Recommended restrictions

**Product use:** Lubricant

**Restrictions on use:** Not known.

### Manufacturer/Importer/Distributor Information

#### Manufacturer

Company Name: BRODI SPECIALTY PRODUCTS LTD  
Address: 3175 14TH AV, UNIT 1  
MARKHAM, ONTARIO L3R 0H1  
Telephone: 877-744-0751  
Fax:

**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  
Carcinogenicity Category 2  
Toxic to reproduction Category 2  
Specific Target Organ Toxicity -  
Single Exposure Category 3<sup>1</sup>  
Aspiration Hazard Category 1

#### Target Organs

1.Narcotic effect.

#### Environmental Hazards

Acute hazards to the aquatic  
environment Category 3  
Chronic 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.  
Suspected of causing cancer.  
Suspected of damaging fertility or the unborn child.  
May cause drowsiness or dizziness.  
May be fatal if swallowed and enters airways.  
Harmful to aquatic life with long lasting effects.

### Precautionary Statements

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

**Response:** IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Specific treatment (see on this label). Take off contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. 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 exposed or concerned: Get medical advice/attention.

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

**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.

**Other hazards which do not result in GHS classification:** None.

## 3. Composition/information on ingredients

### Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Butane		106-97-8	10 - 30%
2-Propanone		67-64-1	10 - 30%
Propane		74-98-6	5 - 10%
Solvent naphtha (petroleum), light aliph.		64742-89-8	3 - 7%

Naphtha (petroleum), heavy alkylate	64741-65-7	3 - 7%
Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )	14807-96-6	1 - 5%
Benzene, methyl-	108-88-3	1 - 5%
Naphtha (petroleum), hydrotreated light	64742-49-0	1 - 5%
Heptane	142-82-5	1 - 5%
Heptane, branched, cyclic and linear	426260-76-6	1 - 5%
2-Propanol	67-63-0	1 - 5%
Molybdenum sulfide (MoS <sub>2</sub> )	1317-33-5	0.5 - 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.

**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.

#### 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:** No data available.

#### 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>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>Notification Procedures:</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>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

<b>Precautions for safe handling:</b>	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 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.
<b>Conditions for safe storage, including any incompatibilities:</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

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Butane	STEL	1,000 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (08 2017)
Butane	STEL	750 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2017)
	TWA	600 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2017)
Butane	TWA	800 ppm 1,900 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (12 2008)
Butane	TWA	1,000 ppm	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
Butane	8 HR ACL	1,000 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Butane	STEL	1,000 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2018)
	15 MIN ACL	1,250 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Butane	STEL	1,000 ppm	US. ACGIH Threshold Limit Values, as amended (03 2018)

2-Propanone	STEL	750 ppm 1,800 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
2-Propanone	STEL	500 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
2-Propanone	TWA	250 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (08 2017)
	STEL	500 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (08 2017)
	TWA	250 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
2-Propanone	TWA	250 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2015)
2-Propanone	8 HR ACL	500 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
	STEL	500 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2015)
2-Propanone	STEL	1,000 ppm 2,380 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
	TWA	500 ppm 1,200 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
	TWA	500 ppm 1,190 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
	15 MIN ACL	750 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
2-Propanone	TWA	250 ppm	US. ACGIH Threshold Limit Values, as amended (03 2015)
	STEL	500 ppm	US. ACGIH Threshold Limit Values, as amended (03 2015)
Propane	TWA	1,000 ppm	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
Propane	8 HR ACL	1,000 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Propane	TWA	1,000 ppm 1,800 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (12 2008)
Propane	TWA	1,000 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	15 MIN ACL	1,250 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Solvent naphtha (petroleum), light aliph.	15 MIN ACL	500 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Solvent naphtha (petroleum), light aliph.	TWA	400 ppm 1,590 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
	8 HR ACL	400 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Solvent naphtha (petroleum), light aliph.	TWA	400 ppm 1,590 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
Naphtha (petroleum), heavy alkylate	8 HR ACL	400 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Naphtha (petroleum), heavy alkylate	TWA	400 ppm 1,590 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
	15 MIN ACL	500 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Naphtha (petroleum), heavy alkylate	TWA	525 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)

Naphtha (petroleum), heavy alkylate	TWA	400 ppm 1,590 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
Talc (Mg3H2(SiO3)4) - Respirable particles.	TWA	2 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
Talc (Mg3H2(SiO3)4) - Respirable.	TWA	2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Talc (Mg3H2(SiO3)4) - Respirable fraction.	TWA	2 mg/m3	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2011)
Talc (Mg3H2(SiO3)4)	TWA	2 fibers/mL	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Talc (Mg3H2(SiO3)4) - Respirable fraction.	TWA	2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Talc (Mg3H2(SiO3)4) - Respirable fraction.	8 HR ACL	2 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Talc (Mg3H2(SiO3)4) - Respirable dust.	TWA	3 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
Talc (Mg3H2(SiO3)4) - Respirable fraction.	TWA	2 mg/m3	US. ACGIH Threshold Limit Values, as amended (2008)
Benzene, methyl-	TWA	50 ppm 188 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (10 2006)
Benzene, methyl-	TWA	20 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Benzene, methyl-	8 HR ACL	50 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
	15 MIN ACL	60 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Benzene, methyl-	TWA	20 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Benzene, methyl-	TWA	50 ppm 188 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
Benzene, methyl-	TWA	20 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2011)
Benzene, methyl-	TWA	20 ppm	US. ACGIH Threshold Limit Values, as amended (2008)
Naphtha (petroleum), hydrotreated light	8 HR ACL	400 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Naphtha (petroleum), hydrotreated light	TWA	400 ppm 1,590 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
Naphtha (petroleum), hydrotreated light	TWA	400 ppm 1,590 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
	15 MIN ACL	500 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Heptane	TWA	400 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	500 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Heptane	STEL	500 ppm 2,050 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
Heptane	8 HR ACL	400 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Heptane	TWA	400 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2012)

	STEL	500 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2012)
Heptane	STEL	500 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Heptane	STEL	500 ppm 2,050 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
	TWA	400 ppm 1,640 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
	15 MIN ACL	500 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
	TWA	400 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
	TWA	400 ppm 1,640 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
Heptane	TWA	400 ppm	US. ACGIH Threshold Limit Values, as amended (02 2012)
	STEL	500 ppm	US. ACGIH Threshold Limit Values, as amended (02 2012)
2-Propanol	STEL	400 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	200 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
2-Propanol	STEL	400 ppm 984 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
2-Propanol	8 HR ACL	200 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
	TWA	200 ppm 492 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
	15 MIN ACL	400 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
2-Propanol	TWA	200 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
2-Propanol	TWA	200 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2011)
	STEL	400 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2011)
	STEL	400 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
2-Propanol	STEL	500 ppm 1,230 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
	TWA	400 ppm 983 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
2-Propanol	TWA	200 ppm	US. ACGIH Threshold Limit Values, as amended (2008)
	STEL	400 ppm	US. ACGIH Threshold Limit Values, as amended (2008)
Molybdenum sulfide (MoS2) - Total - as Mo	TWA	10 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
Molybdenum sulfide (MoS2) - Respirable. - as Mo	TWA	3 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
Molybdenum sulfide (MoS2) - Inhalable	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Molybdenum sulfide (MoS2) - Respirable.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Molybdenum sulfide (MoS2) - Inhalable fraction. - as Mo	TWA	10 mg/m3	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2011)

Molybdenum sulfide (MoS2) - Respirable fraction. - as Mo	TWA	3 mg/m3	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2011)
Molybdenum sulfide (MoS2) - Respirable fraction. - as Mo	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Molybdenum sulfide (MoS2) - Inhalable fraction. - as Mo	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Molybdenum sulfide (MoS2) - Inhalable fraction. - as Mo	8 HR ACL	10 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
	15 MIN ACL	20 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Molybdenum sulfide (MoS2) - as Mo	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
Molybdenum sulfide (MoS2) - Respirable fraction. - as Mo	TWA	3 mg/m3	US. ACGIH Threshold Limit Values, as amended (2009)
Molybdenum sulfide (MoS2) - Inhalable fraction. - as Mo	TWA	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (2009)
1,2-Ethanediol - Aerosol.	CEILING	100 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2-Ethanediol - Vapor.	CEILING	50 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2-Ethanediol - Particulate.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	20 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2-Ethanediol	CEILING	100 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
1,2-Ethanediol - Aerosol.	Ceiling	100 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
1,2-Ethanediol - Aerosol.	CEV	100 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
1,2-Ethanediol - Vapor fraction	STEL	50 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2017)
1,2-Ethanediol - Aerosol, inhalable.	STEL	10 mg/m3	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2017)
1,2-Ethanediol - Vapor and mist.	CEILING	50 ppm 127 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
1,2-Ethanediol - Vapor fraction	TWA	25 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2017)
1,2-Ethanediol - Vapor fraction	TWA	25 ppm	US. ACGIH Threshold Limit Values, as amended (03 2017)
	STEL	50 ppm	US. ACGIH Threshold Limit Values, as amended (03 2017)
1,2-Ethanediol - Aerosol, inhalable.	STEL	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2017)
Benzene, 1,2,4-trimethyl-	TWA	25 ppm 123 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (10 2006)
Benzene, 1,2,4-trimethyl-	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Benzene, 1,2,4-trimethyl-	8 HR ACL	25 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
	15 MIN ACL	30 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Benzene, 1,2,4-trimethyl-	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)

Benzene, 1,2,4-trimethyl-	TWA	25 ppm		Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2011)
Benzene, 1,2,4-trimethyl-	TWA	25 ppm	123 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
Benzene, 1,2,4-trimethyl-	TWA	25 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
Dolomite (CaMg(CO3)2) - Respirable fraction.	TWA		3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Dolomite (CaMg(CO3)2) - Respirable fraction.	15 MIN ACL		6 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Dolomite (CaMg(CO3)2) - Respirable fraction.	TWA		3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Dolomite (CaMg(CO3)2) - Inhalable fraction.	TWA		10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Dolomite (CaMg(CO3)2) - Inhalable fraction.	8 HR ACL		10 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Dolomite (CaMg(CO3)2) - Total particulate.	TWA		10 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
	15 MIN ACL		20 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Dolomite (CaMg(CO3)2) - Respirable particles.	TWA		3 mg/m3	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2016)
Dolomite (CaMg(CO3)2) - Total dust.	TWA		10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Dolomite (CaMg(CO3)2) - Respirable fraction.	8 HR ACL		3 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Dolomite (CaMg(CO3)2) - Inhalable particles.	TWA		10 mg/m3	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2016)
Dolomite (CaMg(CO3)2) - Respirable particles.	TWA		3 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
Dolomite (CaMg(CO3)2) - Total dust.	TWA		10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
Dolomite (CaMg(CO3)2) - Inhalable particles.	TWA		10 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2016)
Dolomite (CaMg(CO3)2) - Respirable particles.	TWA		3 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2016)
Carbonic acid, magnesium salt (1:1)	15 MIN ACL		20 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Carbonic acid, magnesium salt (1:1) - Total dust.	TWA		10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
	8 HR ACL		10 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Benzene	STEL	2.5 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Benzene	STEL	2.5 ppm	8 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
	TWA	0.5 ppm	1.6 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)
Benzene	TWA	0.5 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
	STEL	2.5 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Benzene	STEL	2.5 ppm		Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2011)

	TWA	0.5 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Benzene	TWA	1 ppm	3 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
	STEL	5 ppm	15.5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
	TWA	0.5 ppm		Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2011)
Benzene	TWA	0.5 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
	STEL	2.5 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
Benzene, (1-methylethyl)-	TWA	25 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Benzene, (1-methylethyl)-	15 MIN ACL	74 ppm		Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Benzene, (1-methylethyl)-	TWA	50 ppm	246 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (10 2006)
	STEL	75 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	8 HR ACL	50 ppm		Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Benzene, (1-methylethyl)-	TWA	50 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Benzene, (1-methylethyl)-	TWA	50 ppm	246 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
Benzene, (1-methylethyl)-	TWA	50 ppm		Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2011)
Benzene, (1-methylethyl)-	TWA	50 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
Benzene, ethyl-	TWA	20 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Benzene, ethyl-	TWA	100 ppm	434 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (10 2006)
Benzene, ethyl-	TWA	20 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Benzene, ethyl-	8 HR ACL	100 ppm		Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
Benzene, ethyl-	TWA	20 ppm		Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended (03 2011)
	STEL	125 ppm	543 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (10 2006)
Benzene, ethyl-	TWA	100 ppm	434 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
	15 MIN ACL	125 ppm		Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended (05 2009)
	STEL	125 ppm	543 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment), as amended (09 2017)
Benzene, ethyl-	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended (12 2010)

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment

<b>General information:</b>	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.
<b>Eye/face protection:</b>	Wear safety glasses with side shields (or goggles).
<b>Skin Protection</b>	
<b>Hand Protection:</b>	No data available.
<b>Other:</b>	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
<b>Respiratory Protection:</b>	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
<b>Hygiene measures:</b>	Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Avoid contact with eyes. 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.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	liquid
<b>Form:</b>	Spray Aerosol
<b>Color:</b>	No data available.
<b>Odor:</b>	No data available.
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	-104.44 °C
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	3,102 - 3,792 hPa (20 °C)
<b>Vapor density:</b>	No data available.
<b>Density:</b>	No data available.
<b>Relative density:</b>	No data available.
<b>Solubility(ies)</b>	
<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>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</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

<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.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

##### Oral

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

##### Specified substance(s):

2-Propanone	LD 50 (Rat): 5,800 mg/kg
Solvent naphtha (petroleum), light aliph.	LD 50 (Rat): > 5,000 mg/kg
Naphtha (petroleum), heavy alkylate	LD 50: > 2,000 mg/kg
Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )	LD 50: > 5,000 mg/kg
Benzene, methyl-	LD 50 (Rat): 5,580 mg/kg
Naphtha (petroleum), hydrotreated light	LD 50 (Rat): > 5,000 mg/kg
Heptane	LD 50 (Rat): > 5,000 mg/kg
Heptane, branched, cyclic and linear	LD 50: > 2,000 mg/kg

2-Propanol LD 50: > 5,000 mg/kg  
LD 50 (Rat): 5.84 g/kg

Molybdenum sulfide (MoS<sub>2</sub>) LD 50: > 5,000 mg/kg

**Dermal**

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

**Specified substance(s):**

2-Propanone LD 50 (Rabbit): > 7,426 mg/kg

Solvent naphtha (petroleum), light aliph. LD 50 (Rabbit): > 3,000 mg/kg

Naphtha (petroleum), heavy alkylate LD 50: > 2,000 mg/kg

Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>) LD 50: > 5,000 mg/kg

Benzene, methyl- LD 50 (Rabbit): > 5,000 mg/kg

Naphtha (petroleum), hydrotreated light LD 50 (Rabbit): > 3,750 mg/kg

Heptane LD 50 (Rabbit): > 2,000 mg/kg

Heptane, branched, cyclic and linear LD 50: > 2,000 mg/kg

2-Propanol LD 50: > 5,000 mg/kg

Molybdenum sulfide (MoS<sub>2</sub>) LD 50: > 5,000 mg/kg

**Inhalation**

**Product:** ATEmix: 136.36 mg/l

**Repeated dose toxicity**

**Product:** No data available.

**Specified substance(s):**

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

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

Solvent naphtha (petroleum), light aliph. NOAEL (Mouse, Rat(Female, Male), Inhalation, 107 - 113 Weeks): 1,402 mg/m<sup>3</sup> Inhalation Experimental result, Key study  
NOAEL (Rat(Female, Male), Dermal, 5 - 28 d): 3,750 mg/kg Dermal Experimental result, Key study  
NOAEL (Rat(Female, Male), Dermal, 28 d): > 375 mg/kg Dermal Experimental result, Supporting 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

Naphtha (petroleum), hydrotreated light	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 NOAEL (Rat(Female, Male), Inhalation): 10,000 mg/m3 Inhalation Experimental result, Key study
Heptane	NOAEL (Rat(Male), Inhalation): 12,470 mg/m3 Inhalation Experimental result, Key study
2-Propanol	NOAEL (Rat, Inhalation, >= 104 Weeks): 5,000 ppm(m) Inhalation Experimental result, Key study

**Skin Corrosion/Irritation**

**Product:** No data available.

**Specified substance(s):**

2-Propanone	in vivo (Rabbit): Not irritant Experimental result, Supporting study
Benzene, methyl-	in vivo (Rabbit): Irritating Experimental result, Key study
Heptane	in vivo (Rabbit): Irritating Read-across based on grouping of substances (category approach), Key study
2-Propanol	in vivo (Rabbit): Not Classified Experimental result, Key study

**Serious Eye Damage/Eye Irritation**

**Product:** No data available.

**Specified substance(s):**

2-Propanone	Irritating. Rabbit, 24 hrs: Minimum grade of severe eye irritant
Solvent naphtha (petroleum), light aliph.	Rabbit: Not irritating
Benzene, methyl-	Rabbit, 24 - 72 hrs: Not irritating
Naphtha (petroleum), hydrotreated light	Rabbit, 24 - 72 hrs: Not irritating
Heptane	Rabbit, 24 - 72 hrs: Not irritating
2-Propanol	Rabbit, 1 d: Category 2: Causes serious eye irritation Irritating.

**Respiratory or Skin Sensitization**

**Product:** No data available.

**Specified substance(s):**

2-Propanone	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Solvent naphtha (petroleum), light aliph.	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Benzene, methyl-	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Naphtha (petroleum), hydrotreated light	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Heptane	Skin sensitization:, in vivo (Guinea pig): Non sensitising
2-Propanol	Skin sensitization:, in vivo (Guinea pig): Non sensitising

**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Talc (Mg3H2(SiO3)4)	Overall evaluation: 3. Not classifiable as to carcinogenicity to humans. Overall evaluation: 2B. Possibly carcinogenic to humans.
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**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**ACGIH Carcinogen List:**

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.

**Specified substance(s):**

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

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specified substance(s):**

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

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Specified substance(s):**

Benzene, methyl- Category 2

**Target Organs**

Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

**Aspiration Hazard**

**Product:** No data available.

**Specified substance(s):**

Solvent naphtha (petroleum), light aliph. May be fatal if swallowed and enters airways.  
Naphtha (petroleum), heavy alkylate May be fatal if swallowed and enters airways.  
Benzene, methyl- May be fatal if swallowed and enters airways.  
Naphtha (petroleum), hydrotreated light May be fatal if swallowed and enters airways.  
Heptane May be fatal if swallowed and enters airways.  
Heptane, branched, cyclic and linear 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):

Butane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, 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
Benzene, methyl-	LC 50 (Oncorhynchus kisutch, 96 h): 5.5 mg/l Experimental result, Key study
Naphtha (petroleum), hydrotreated light	LC 50 (96 h): 8.41 mg/l Experimental result, Key study
Heptane	LC 50 (Mozambique tilapia (Tilapia mossambica), 96 h): 375 mg/l Mortality
2-Propanol	LC 50 (Pimephales promelas, 96 h): 9,640 mg/l Experimental result, Key study

##### Aquatic Invertebrates

**Product:** No data available.

##### Specified substance(s):

Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
2-Propanone	LC 50 (Daphnia pulex, 48 h): 8,800 mg/l Experimental result, Key study
Solvent naphtha (petroleum), light aliph.	EC 50 (Daphnia magna, 48 h): 32 mg/l Experimental result, Supporting 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
Naphtha (petroleum), hydrotreated light	EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study
Heptane	EC 50 (Daphnia magna, 48 h): 1.5 mg/l Experimental result, Key study
2-Propanol	LC 50 (Daphnia magna, 24 h): > 10,000 mg/l Experimental result, Key study

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Specified substance(s):

Benzene, methyl-	NOAEL (Oncorhynchus kisutch): 1.39 mg/l Experimental result, Key study LOAEL (Oncorhynchus kisutch): 2.77 mg/l Experimental result, Key study
Naphtha (petroleum), hydrotreated light	EC 50 (Daphnia magna): 10 mg/l Other, Key study NOAEL (Daphnia magna): 2.6 mg/l Other, Key study
Heptane	NOAEL (Oncorhynchus mykiss): 1.284 mg/l QSAR QSAR, Key study

##### Aquatic Invertebrates

**Product:** No data available.

<b>Specified substance(s):</b> 2-Propanone	LOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study NOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study
Solvent naphtha (petroleum), light aliph.	EC 50 (Daphnia magna): > 40 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
Naphtha (petroleum), hydrotreated light	EC 50 (Daphnia magna): 10 mg/l Experimental result, Key study NOAEL (Daphnia magna): 2.6 mg/l Experimental result, Key study
Heptane	NOAEL (Daphnia magna): 0.17 mg/l Read-across based on grouping of substances (category approach), Key study EC 50 (Daphnia magna): 0.23 mg/l Read-across based on grouping of substances (category approach), Key study
Heptane, branched, cyclic and linear	NOEC : < 1 mg/l estimation

#### Toxicity to Aquatic Plants

**Product:** No data available.

#### Persistence and Degradability

##### Biodegradation

**Product:** No data available.

#### Specified substance(s):

Butane	100 % (385.5 h) Detected in water. Experimental result, Key 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
Solvent naphtha (petroleum), light aliph.	90.35 % (28 d) Detected in water. Experimental result, Supporting 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
Naphtha (petroleum), hydrotreated light	90.35 % (28 d) Detected in water. Experimental result, Supporting study
Heptane	70 % Detected in water. Experimental result, Key study
2-Propanol	53 % (5 d) Detected in water. Experimental result, Key study

#### BOD/COD Ratio

**Product:** No data available.

#### Bioaccumulative potential

##### Bioconcentration Factor (BCF)

**Product:** No data available.

#### Specified substance(s):

2-Propanone	Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment Experimental result, Not specified
Solvent naphtha (petroleum), light aliph.	Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study

Benzene, methyl-	Leuciscus idus, Bioconcentration Factor (BCF): 90 Aquatic sediment Experimental result, Key study
Naphtha (petroleum), hydrotreated light	Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study
Heptane	Bioconcentration Factor (BCF): 552 Aquatic sediment Estimated by calculation, Key study

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

**Product:** No data available.

**Specified substance(s):**

Naphtha (petroleum),  
hydrotreated light  
Log Kow: > 2.4 - < 5.7 23 °C Yes Experimental result, Key study  
Log Kow: 2.2 - 5.2 23 °C Yes Experimental result, Key study  
Log Kow: 2.2 - 6.1 23 °C Yes Experimental result, Key study

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

**Known or predicted distribution to environmental compartments**

Butane	No data available.
2-Propanone	No data available.
Propane	No data available.
Solvent naphtha (petroleum), light aliph.	No data available.
Naphtha (petroleum), heavy alkylate	No data available.
Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )	No data available.
Benzene, methyl-	No data available.
Naphtha (petroleum), hydrotreated light	No data available.
Heptane	No data available.
Heptane, branched, cyclic and linear	No data available.
2-Propanol	No data available.
Molybdenum sulfide (MoS <sub>2</sub> )	No data available.

**Other adverse effects:** Harmful 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**

**TDG**

UN Number:	UN 1950
UN Proper Shipping Name:	Aerosols, flammable
Transport Hazard Class(es)	
Class:	2.1
Label(s):	–
EmS No.:	
Packing Group:	–
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

### Canada Federal Regulations

#### List of Toxic Substances (CEPA, Schedule 1)

##### Chemical Identity

2-Propanone  
Talc ( $Mg_3H_2(SiO_3)_4$ )  
2-Butanone, oxime  
Dolomite ( $CaMg(CO_3)_2$ )  
Benzene

#### Export Control List (CEPA 1999, Schedule 3)

##### Chemical Identity

2-Propanone

#### National Pollutant Release Inventory (NPRI)

##### Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements

NPRI PT5

- Butane
- 2-Propanone
- Propane
- Solvent naphtha (petroleum), light aliph.
- Naphtha (petroleum), heavy alkylate
- Benzene, methyl-
- Naphtha (petroleum), hydrotreated light
- Heptane
- 2-Propanol
- Benzene, 1,2,4-trimethyl-
- Solvent naphtha (petroleum), light arom.
- Benzene

**Canada. National Pollutant  
Release Inventory (NPRI) (Schedule 1, Parts 1-4)**

NPRI	2-Propanone
	Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )
	Benzene, methyl-2-
	Propanol
	Dolomite (CaMg(CO <sub>3</sub> ) <sub>2</sub> )

**Greenhouse Gases**

**Chemical Identity**

2-Propanone

**Controlled Drugs and Substances Act**

CA CDSI	2-Propanone
CA CDSII	2-Propanone
CA CDSIII	2-Propanone
CA CDSIV	2-Propanone
CA CDSV	2-Propanone
CA CDSVII	2-Propanone
CA CDSVIII	2-Propanone

**Precursor Control Regulations**

**Chemical Identity**

2-Propanone  
Benzene, methyl-

**International regulations**

**Montreal protocol**

2-Propanone

**Stockholm convention**

2-Propanone

**Rotterdam convention**

2-Propanone

**Kyoto protocol**

**Inventory Status:**

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

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

**Issue Date:** 06/05/2020

**Revision Date:** 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.