

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** NON-CHLORINATED BRAKE CLEANER - TS4420

**Other means of identification**

**SDS number:** RE1000040269

**Recommended restrictions**

**Product use:** Cleaner

**Restrictions on use:** Not known.

**Manufacturer/Importer/Distributor Information**

**Manufacturer**

Company Name: Association of Independent Oil Distributors  
Address: P.O. Box 1861  
Montrose, CO 81402-1861  
Telephone: 800-313-2463  
Fax: Manufactured For

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

## 2. Hazard(s) identification

**Hazard Classification**

**Physical Hazards**

Flammable aerosol Category 1

**Health Hazards**

Acute toxicity (Oral) Category 4

Acute toxicity (Inhalation - dust and mist) Category 4

Skin Corrosion/Irritation Category 2

Serious Eye Damage/Eye Irritation Category 2A

Toxic to reproduction Category 2

Specific Target Organ Toxicity - Single Exposure Category 1

Specific Target Organ Toxicity - Single Exposure Category 3<sup>1</sup>

Specific Target Organ Toxicity - Repeated Exposure Category 2

Aspiration Hazard Category 1

**Target Organs**

1. Narcotic effect.

**Environmental Hazards**

Acute hazards to the aquatic environment Category 3

## Label Elements

### Hazard Symbol:



**Signal Word:** Danger

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

### Precautionary Statements

**Prevention:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. 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. 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. Rinse mouth. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF exposed or concerned: Call a POISON CENTER/doctor. Specific treatment (see on this label). Take off contaminated clothing.

**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 (%)*
2-Propanone	67-64-1	20 - <50%
Methanol	67-56-1	10 - <25%
Benzene, methyl-	108-88-3	10 - <20%
Carbon dioxide	124-38-9	5 - <10%

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

### 4. First-aid measures

- Ingestion:** Rinse mouth. Call a physician or poison control center immediately. 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>	Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

## 7. Handling and storage

<b>Precautions for safe handling:</b>	Do not taste or swallow. Wash hands thoroughly after handling. Avoid contact with eyes. 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. 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>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 2

## 8. Exposure controls/personal protection

### Control Parameters Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
2-Propanone	STEL	1,000 2,400 mg/m3 ppm	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	1,000 2,400 mg/m3 ppm	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	250 ppm	US. ACGIH Threshold Limit Values (03 2015)
	TWA	750 ppm 1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Methanol	STEL	500 ppm	US. ACGIH Threshold Limit Values (03 2015)
	REL	250 ppm 590 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	200 ppm 260 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	200 ppm 260 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	200 ppm 260 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	250 ppm 325 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Benzene, methyl-	TWA	200 ppm	US. ACGIH Threshold Limit Values (2008)
	STEL	250 ppm	US. ACGIH Threshold Limit Values (2008)
	STEL	250 ppm 325 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	150 ppm 560 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm 375 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm 375 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	300 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	20 ppm	US. ACGIH Threshold Limit Values (2008)
MAX. CONC	TWA	200 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	500 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)

	STEL	150 ppm	560 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Carbon dioxide	TWA	5,000 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	30,000 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	30,000 ppm	54,000 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	5,000 ppm	9,000 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	5,000 ppm	9,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	10,000 ppm	18,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	30,000 ppm	54,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Naphtha (petroleum), hydrotreated light	PEL	100 ppm	400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
	REL	100 ppm	400 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	100 ppm	400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Heptane	TWA	400 ppm	1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	85 ppm	350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	400 ppm		US. ACGIH Threshold Limit Values (02 2012)
	STEL	500 ppm		US. ACGIH Threshold Limit Values (02 2012)
	Ceil_Time	440 ppm	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Cyclohexane, methyl-	PEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	400 ppm	1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	400 ppm		US. ACGIH Threshold Limit Values (2008)
	REL	400 ppm	1,600 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Hexane	TWA	50 ppm	180 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	500 ppm	1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	REL	50 ppm	180 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	50 ppm		US. ACGIH Threshold Limit Values (2008)
Cyclohexane	TWA	100 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	300 ppm	1,050 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	300 ppm	1,050 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	300 ppm	1,050 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Benzene, ethyl-	STEL	125 ppm	545 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	125 ppm	545 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm	435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	20 ppm		US. ACGIH Threshold Limit Values (12 2010)
Benzene	REL	0.1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	1 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	25 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	0.5 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	2.5 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	OSHA_AC T	0.5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	TWA	10 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	50 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	STEL	5 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	1 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	STEL	1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards (2005)

### Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
2-Propanone (acetone: Sampling time: End of shift.)	25 mg/l (Urine)	ACGIH BEL (03 2015)
Methanol (methanol: Sampling time: End of shift.)	15 mg/l (Urine)	ACGIH BEL (03 2013)
Benzene, methyl- (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEL (03 2013)
Benzene, methyl- (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)

Benzene, methyl- (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEL (03 2013)
Hexane (2,5-Hexanedion, without hydrolysis: Sampling time: End of shift.)	0.5 mg/l (Urine)	ACGIH BEL (03 2018)
Benzene, ethyl- (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)	0.15 g/g (Creatinine in urine)	ACGIH BEL (02 2014)
Benzene (S-Phenylmercapturic acid: Sampling time: End of shift.)	25 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)

**Appropriate Engineering Controls** No data available.

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

- General information:** Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
- Eye/face protection:** Wear safety glasses with side shields (or goggles).
- Skin Protection**
- Hand Protection:** No data available.
- Other:** Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
- Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
- Hygiene measures:** Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Wash hands after handling. 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. 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.
- Odor:** No data available.
- Odor threshold:** No data available.
- pH:** No data available.
- Melting point/freezing point:** No data available.
- Initial boiling point and boiling range:** No data available.
- Flash Point:** Estimated -17 °C
- Evaporation rate:** No data available.
- Flammability (solid, gas):** No data available.

**Upper/lower limit on flammability or explosive limits**

- Flammability limit - upper (%):** Estimated 12.8 %(V)
- Flammability limit - lower (%):** Estimated 2.6 %(V)
- Explosive limit - upper (%):** No data available.

<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<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)

<b>Oral</b>	
<b>Product:</b>	ATEmix: 424.33 mg/kg
<b>Dermal</b>	
<b>Product:</b>	ATEmix: 4,243.26 mg/kg

**Inhalation**

**Product:** ATEmix: 4.24 mg/l

**Repeated dose toxicity**

**Product:** No data available.

**Specified substance(s):**

2-Propanone	NOAEL (Rat(Male), Oral, 13 Weeks): 10,000 ppm(m) Oral Experimental result, Key study
Methanol	LOAEL (Rat(Male), Inhalation, 1 - 6 Weeks): 13.3 mg/l Inhalation 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

**Skin Corrosion/Irritation**

**Product:** No data available.

**Specified substance(s):**

2-Propanone	in vivo (Rabbit): Not irritant Experimental result, Supporting study
Methanol	in vivo (Rabbit): Not irritant Experimental result, Key study
Benzene, methyl-	in vivo (Rabbit): Irritating 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
Benzene, methyl-	Rabbit, 24 - 72 hrs: Not irritating

**Respiratory or Skin Sensitization**

**Product:** No data available.

**Specified substance(s):**

2-Propanone	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Methanol	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Benzene, methyl-	Skin sensitization:, in vivo (Guinea pig): Non sensitising

**Carcinogenicity**

**Product:** No data available.

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

No carcinogenic components identified

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

No carcinogenic components identified

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

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.



**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**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.

Methanol Causes damage to organs.

Benzene, methyl- Inhalation - vapor: 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):**

Benzene, 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.

**Specified substance(s):**

2-Propanone LC 50 (Oncorhynchus mykiss, 96 h): 5,540 mg/l Experimental result, Key study

Methanol EC 50 (Lepomis macrochirus, 96 h): 12,700 mg/l Experimental result, Key study

Benzene, methyl- LC 50 (Oncorhynchus kisutch, 96 h): 5.5 mg/l Experimental result, Key study

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

2-Propanone LC 50 (Daphnia pulex, 48 h): 8,800 mg/l Experimental result, Key study

Methanol EC 50 (Daphnia magna, 96 h): 18,260 mg/l Experimental result, 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

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Methanol EC 50 (*Oryzias latipes*): 9,164 mg/l Experimental result, Supporting 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

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

2-Propanone LOAEL (*Daphnia magna*): 2,212 mg/l Experimental result, Key study  
NOAEL (*Daphnia magna*): 2,212 mg/l Experimental result, Key study

Methanol NOAEL (*Daphnia magna*): 122 mg/l Experimental result, Supporting 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

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**Specified substance(s):**

2-Propanone 90.9 % (28 d) Detected in water. Experimental result, Key study

Methanol 97 % 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

**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

Methanol *Leuciscus idus*, Bioconcentration Factor (BCF): < 10 Aquatic sediment  
Experimental result, Supporting study

Benzene, methyl- *Leuciscus idus*, Bioconcentration Factor (BCF): 90 Aquatic sediment  
Experimental result, Key study

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

**Product:** No data available.

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

**Known or predicted distribution to environmental compartments**

2-Propanone	No data available.
Methanol	No data available.
Benzene, methyl-	No data available.
Carbon dioxide	No data available.

**Other adverse effects:** Harmful to aquatic organisms.

**13. Disposal considerations**

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

**Contaminated Packaging:** No data available.

**14. Transport information**

**DOT**

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

**IMDG**

UN Number:	UN 1950
UN Proper Shipping Name:	Aerosols, flammable
Transport Hazard Class(es)	
Class:	2
Label(s):	–
EmS No.:	
Packing Group:	–
Environmental Hazards:	No
Marine Pollutant	No
Special precautions for user:	Not regulated.

**IATA**

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

## 15. Regulatory information

### US Federal Regulations

Restrictions on use: Not known.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

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

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

<u>Chemical Identity</u>	<u>Reportable quantity</u>
2-Propanone	lbs. 5000
Methanol	lbs. 5000
Benzene, methyl-	lbs. 1000
Heptane	lbs. 100
Cyclohexane, methyl-	lbs. 100
Hexane	lbs. 5000
Cyclohexane	lbs. 1000
Benzene, ethyl-	lbs. 1000
Benzene	lbs. 10

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

#### Hazard categories

Fire Hazard  
Immediate (Acute) Health Hazards  
Delayed (Chronic) Health Hazard  
Flammable aerosol  
Acute toxicity  
Skin Corrosion/Irritation  
Serious Eye Damage/Eye Irritation  
Toxic to reproduction  
Specific Target Organ Toxicity - Single Exposure  
Specific Target Organ Toxicity - Repeated Exposure  
Aspiration Hazard

#### SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
2-Propanone		
Hexane		

#### SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
2-Propanone	lbs. 5000
Methanol	lbs. 5000
Benzene, methyl-	lbs. 1000
Heptane	lbs. 100
Cyclohexane, methyl-	lbs. 100
Hexane	lbs. 5000
Cyclohexane	lbs. 1000
Benzene, ethyl-	lbs. 1000
Benzene	lbs. 10

**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
2-Propanone	10000 lbs
Methanol	10000 lbs
Benzene, methyl-	10000 lbs
Carbon dioxide	10000 lbs
Naphtha (petroleum), hydrotreated light	10000 lbs
Heptane	10000 lbs
Cyclohexane, methyl-	10000 lbs
Hexane	10000 lbs
Cyclohexane	10000 lbs
Benzene, ethyl-	10000 lbs
Benzene	10000 lbs

**SARA 313 (TRI Reporting)**

<u>Chemical Identity</u>	<u>Reporting threshold for other users</u>	<u>Reporting threshold for manufacturing and processing</u>
Methanol	lbs	lbs.
Benzene, methyl-	lbs	lbs.

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

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)  
US State Regulations**

**US. California Proposition 65**

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

Methanol	Developmental toxin. 03 2012
Benzene, methyl-	Developmental toxin. 03 2008
Hexane	Male reproductive toxin. 12 2017
Benzene, ethyl-	Carcinogenic. 05 2011
Benzene	Developmental toxin. 03 2008
Benzene	Carcinogenic. 05 2011
Benzene	Male reproductive toxin. 03 2008

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

<u>Chemical Identity</u>
2-Propanone
Methanol
Benzene, methyl-
Carbon dioxide

**US. Massachusetts RTK - Substance List**

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

**US. Pennsylvania RTK - Hazardous Substances**

<u>Chemical Identity</u>
2-Propanone
Methanol
Benzene, methyl-
Carbon dioxide

**US. Rhode Island RTK**

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

**International regulations**

**Montreal protocol**

2-Propanone

**Stockholm convention**

2-Propanone

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**Rotterdam convention**

2-Propanone

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**Kyoto protocol**

**Inventory Status:**

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

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

**Issue Date:** 03/12/2020

**Revision Information:** No data available.

**Version #:** 1.0

**Further Information:** No data available.

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.