

# SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

## 1. Identification

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

**Other means of identification**

**SDS number:** RE1000039886

**Recommended restrictions**

**Recommended use:** Cleaner

**Restrictions on use:** Not known.

**Manufacturer/Importer/Distributor Information**

**Manufacturer**

Company Name: The Penray Companies, Inc.  
Address: 2651 Warrenville Rd., Ste. 300  
Downers Grove, IL 60515  
US  
Telephone: 800-373-6729

**Emergency telephone number:** 1-800-424-9300

## 2. Hazard(s) identification

### Hazard Classification

**Physical Hazards**

Flammable aerosol Category 1

**Health Hazards**

Skin Corrosion/Irritation Category 2  
Serious Eye Damage/Eye Irritation Category 2A  
Carcinogenicity Category 2  
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

### 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 cause damage to organs through prolonged or repeated exposure.  
May be fatal if swallowed and enters airways.  
Toxic 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. 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.

**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	50 - <100%
Naphtha (petroleum), hydrotreated light	64742-49-0	10 - <25%
Heptane	142-82-5	5 - <10%
Benzene, dimethyl-	1330-20-7	5 - <10%
Carbon dioxide	124-38-9	5 - <10%
Benzene, ethyl-	100-41-4	1 - <5%
Cyclohexane, methyl-	108-87-2	1 - <5%
Benzene, methyl-	108-88-3	0.1 - <1%

\* 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

<b>Inhalation:</b>	Move to fresh air.
<b>Skin Contact:</b>	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.
<b>Eye contact:</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
<b>Ingestion:</b>	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.
<b>Personal Protection for First-aid Responders:</b>	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

<b>Symptoms:</b>	No data available.
<b>Hazards:</b>	No data available.

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

<b>Treatment:</b>	Symptoms may be delayed.
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#### 5. Fire-fighting measures

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

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

<b>Specific hazards arising from the chemical:</b>	Vapors may travel considerable distance to a source of ignition and flash back.
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##### Special protective equipment and precautions for firefighters

<b>Special fire fighting procedures:</b>	No data available.
<b>Special protective equipment for fire-fighters:</b>	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>	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. Pressurized container: Do not pierce or burn, even after use. 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
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/m <sup>3</sup>	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/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Naphtha (petroleum), hydrotreated light	STEL	500 ppm	US. ACGIH Threshold Limit Values, as amended
	REL	250 ppm 590 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	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/m3	US. OSHA Table Z-1 Limits for Air Contaminants (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_ Time	440 ppm	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, dimethyl-	TWA	100 ppm	435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	100 ppm		US. ACGIH Threshold Limit Values, as amended
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	STEL	150 ppm	655 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	150 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Carbon dioxide	TWA	5,000 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	30,000 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	30,000 ppm	54,000 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	REL	5,000 ppm	9,000 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	5,000 ppm	9,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	10,000 ppm	18,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	30,000 ppm	54,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Benzene, ethyl-	STEL	125 ppm	545 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	STEL	125 ppm	545 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	100 ppm	435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	20 ppm		US. ACGIH Threshold Limit Values, 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
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
Hexane	TWA	50 ppm	180 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	PEL	500 ppm	1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	REL	50 ppm	180 mg/m3	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/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	300 ppm	1,050 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	300 ppm	1,050 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), 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, dimethyl- (Methylhippuric acids: Sampling time: End of shift.)	1.5 g/g (Creatinine in 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
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
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

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:** 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>Freezing point:</b>	No data available.

<b>Boiling Point:</b>	Estimated 56 °C
<b>Flash Point:</b>	Estimated -17 °C
<b>Evaporation Rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	4,826 - 6,205 hPa (20 °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

<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.

#### Dermal

**Product:** ATEmix: 24,875.62 mg/kg

#### Inhalation

**Product:** ATEmix: 169.6 mg/l Vapour

### Repeated dose toxicity

**Product:** No data available.

#### Components:

2-Propanone	NOAEL (Rat(Male), Oral, 13 Weeks): 10,000 ppm(m) Oral Experimental result, Key study
Naphtha (petroleum), hydrotreated light	NOAEL (Rat(Female, Male), Inhalation): 10,000 mg/m3 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
Heptane	NOAEL (Rat(Male), Inhalation): 12,470 mg/m3 Inhalation Experimental result, Key study
Benzene, dimethyl-	NOAEL (Rat(Female), Oral, 90 d): 150 mg/kg Oral Experimental result, Key study
Benzene, ethyl-	NOAEL (Mouse(Female, Male), Inhalation, 104 Weeks): 75 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Oral, 28 d): 75 mg/kg Oral 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
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.

#### Components:

2-Propanone	in vivo (Rabbit): Not irritant
Naphtha (petroleum), hydrotreated light	In vitro (Human): not corrosive
Heptane	in vivo (Rabbit): Irritating
Benzene, dimethyl-	in vivo (Rabbit): Moderate irritant estimated Irritating.
Cyclohexane, methyl-	estimated Irritating.
Benzene, methyl-	in vivo (Rabbit): Irritating

### Serious Eye Damage/Eye Irritation

**Product:** No data available.



**Components:**

2-Propanone	Irritating. Rabbit, 24 hrs: Minimum grade of severe eye irritant
Naphtha (petroleum), hydrotreated light	Rabbit, 24 - 72 hrs: Not irritating
Heptane	Rabbit, 24 - 72 hrs: Not irritating
Benzene, dimethyl-	Rabbit, 1 hrs: Slightly irritating (Not Classified)
Cyclohexane, methyl-	Rabbit, 0.5 - 168 hrs: Not irritating
Benzene, methyl-	Rabbit, 24 - 72 hrs: Not irritating

**Respiratory or Skin Sensitization**

**Product:** No data available.

**Components:**

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

**Carcinogenicity**

**Product:** No data available.

**Components:**

Cyclohexane, methyl-	May cause cancer.
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**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Benzene, ethyl-	Overall evaluation: 2B. Possibly carcinogenic to humans.
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**US. National Toxicology Program (NTP) Report on Carcinogens:**

Benzene, ethyl-	Overall evaluation: 2B. Possibly carcinogenic to humans.
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**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.
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**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.
Cyclohexane, methyl-	Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.
Benzene, methyl-	Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Components:**

Benzene, ethyl-	Category 2
Cyclohexane, methyl-	Category 1
Benzene, methyl-	Category 2

**Target Organs**

Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

**Aspiration Hazard**

**Product:** No data available.

**Components:**

Naphtha (petroleum), hydrotreated light	May be fatal if swallowed and enters airways.
Heptane	May be fatal if swallowed and enters airways.
Benzene, ethyl-	May be fatal if swallowed and enters airways.
Cyclohexane, methyl-	May be fatal if swallowed and enters airways.
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.

**Components:**

2-Propanone	LC 50 (Oncorhynchus mykiss, 96 h): 5,540 mg/l Experimental result, Key study
Naphtha (petroleum), hydrotreated light	LC 50 (96 h): 8.41 mg/l Experimental result, Key study
Benzene, ethyl-	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 38.9 - 62.83 mg/l Mortality
Cyclohexane, methyl-	LC 50 (Oryzias latipes, 96 h): 2.07 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.

**Components:**

2-Propanone	LC 50 (Daphnia pulex, 48 h): 8,800 mg/l Experimental result, Key study
Naphtha (petroleum), hydrotreated light	EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study
Benzene, ethyl-	LC 50 (Water flea (Daphnia magna), 24 h): 57 - 100 mg/l Mortality
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.

**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

**Aquatic Invertebrates**

**Product:** No data available.

**Components:**

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

Naphtha (petroleum), hydrotreated light EC 50 (Daphnia magna): 10 mg/l Experimental result, Key study

Benzene, ethyl- LC 50 (Ceriodaphnia dubia): 3.2 mg/l Other, Key study  
NOAEL (Ceriodaphnia dubia): 1 mg/l Other, 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

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**Components:**

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

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

Benzene, dimethyl- 87.8 % Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study

Benzene, ethyl- 2.7 % Detected in water. Other, Supporting study  
70 - 80 % (28 d) Detected in water. Experimental result, Key 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

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.

**Components:**

2-Propanone Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment  
Experimental result, Not specified

Naphtha (petroleum), hydrotreated light	Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study
Benzene, dimethyl-	Oncorhynchus mykiss, Bioconcentration Factor (BCF): > 7.6 - < 21.6 Aquatic sediment Experimental result, Key study
Benzene, ethyl-	Carassius auratus, Bioconcentration Factor (BCF): 15.5 Aquatic sediment Other, Supporting study
Cyclohexane, methyl-	Cyprinus carpio, Bioconcentration Factor (BCF): > 95 - < 321 Aquatic sediment Experimental result, Key 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.

**Components:**

Naphtha (petroleum), hydrotreated light	Log Kow: > 2.4 - < 5.7 23 °C Yes Experimental result, Key study
Benzene, dimethyl-	Log Kow: 2.77 - 3.15 No Not specified, Not specified
Benzene, ethyl-	Log Kow: 3.13 - 3.14 No Other, Supporting study

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

**Components:**

2-Propanone	No data available.
Naphtha (petroleum), hydrotreated light	No data available.
Heptane	No data available.
Benzene, dimethyl-	No data available.
Carbon dioxide	No data available.
Benzene, ethyl-	No data available.
Cyclohexane, methyl-	No data available.
Benzene, methyl-	No data available.

**Other adverse effects:** Toxic 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):	–
EmS No.:	
Packing Group:	–
Special precautions for user:	Not regulated.

## 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: Not regulated.  
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.: –  
Packing Group: –  
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. 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>
Benzene	Flammability Cancer Aspiration Eye Blood Skin respiratory tract irritation Central nervous system

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

Chemical Identity  
ACETONE  
UNLISTED HAZARDOUS WASTES CHARACTERISTIC OF IGNITABILITY  
XYLENE (MIXED)  
ETHYLBENZENE  
BENZENE, METHYL-  
HEXANE  
CYCLOHEXANE  
BENZENE,HEXAHYDRO-  
BENZENE

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

### Hazard categories

Flammable aerosol, Skin Corrosion/Irritation, Serious Eye Damage/Eye Irritation, Carcinogenicity, Toxic to reproduction, Specific Target Organ Toxicity - Single Exposure, Specific Target Organ Toxicity - 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

## 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, dimethyl-	1.0%
Benzene, ethyl-	0.1%

## 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

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

2-Propanone  
Naphtha (petroleum), hydrotreated light  
Heptane  
Benzene, dimethyl-  
Carbon dioxide  
Benzene, ethyl-  
Cyclohexane, methyl-

### US. Massachusetts RTK - Substance List

#### Chemical Identity

Benzene

### US. Pennsylvania RTK - Hazardous Substances

#### Chemical Identity

2-Propanone  
Naphtha (petroleum), hydrotreated light  
Heptane  
Benzene, dimethyl-  
Carbon dioxide  
Benzene, ethyl-  
Cyclohexane, methyl-

### US. Rhode Island RTK

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

## International regulations

### Montreal protocol

2-Propanone

### Stockholm convention

2-Propanone

### Rotterdam convention

2-Propanone

## 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:** 06/30/2021

**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.