

SAFETY DATA SHEET

1. Identification

Product identifier: SP4620 Non-Chlorinated Brake Cleaner

Other means of identification

SDS number: RE1000040218

Recommended restrictions

Recommended use: Cleaner

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufactured For

Company Name: ASSOCIATION OF INDEPENDENT OIL DISTRIBUTORS
Address: 203 W MAIN STREET
MONTROSE, CO 81402-1861
US
Telephone: 800-313-2463

Emergency telephone number: 1-866-836-8855

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable aerosol	Category 1
Gases under pressure	Liquefied gas

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 ¹
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 2
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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.
Contains gas under pressure; may explode if heated.

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 (HNO): 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.

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.
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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.
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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.
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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

Personal precautions, protective equipment and emergency procedures:	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.
Methods and material for containment and cleaning up:	Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

Notification Procedures:	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.
Environmental Precautions:	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

Precautions for safe handling:	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.
Conditions for safe storage, including any incompatibilities:	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
2-Propanone	STEL	1,000 ppm 2,400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	PEL	1,000 ppm 2,400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	TWA	250 ppm	US. ACGIH Threshold Limit Values, as amended (03 2015)
	TWA	750 ppm 1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	STEL	500 ppm	US. ACGIH Threshold Limit Values, as amended (03 2015)
Naphtha (petroleum), hydrotreated light	REL	250 ppm 590 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	REL	100 ppm 400 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
	TWA	100 ppm 400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	PEL	100 ppm 400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (03 2016)
	TWA	400 ppm 1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Heptane	REL	85 ppm 350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	PEL	500 ppm 2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	STEL	500 ppm 2,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	400 ppm	US. ACGIH Threshold Limit Values, as amended (02 2012)
	STEL	500 ppm	US. ACGIH Threshold Limit Values, as amended (02 2012)
	Ceil_Time	440 ppm 1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	TWA	100 ppm 435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	100 ppm	US. ACGIH Threshold Limit Values, as amended (2008)
	PEL	100 ppm 435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	STEL	150 ppm 655 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	STEL	150 ppm	US. ACGIH Threshold Limit Values, as amended (2008)

	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2016)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2016)
Carbon dioxide	TWA	5,000 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
	STEL	30,000 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
	STEL	30,000 ppm	54,000 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	REL	5,000 ppm	9,000 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	PEL	5,000 ppm	9,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	TWA	10,000 ppm	18,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	STEL	30,000 ppm	54,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
Benzene, ethyl-	STEL	125 ppm	545 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	STEL	125 ppm	545 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	100 ppm	435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended (12 2010)
Cyclohexane, methyl-	PEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	TWA	400 ppm	1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	400 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
	REL	400 ppm	1,600 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
Benzene, methyl-	STEL	150 ppm	560 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	REL	100 ppm	375 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	TWA	100 ppm	375 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	Ceiling	300 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended (02 2006)
	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
	TWA	200 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended (02 2006)
	MAX. CONC	500 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended (02 2006)
	STEL	150 ppm	560 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
Hexane	TWA	50 ppm	180 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	PEL	500 ppm	1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	REL	50 ppm	180 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	TWA	50 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
Cyclohexane	TWA	100 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
	TWA	300 ppm	1,050 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	REL	300 ppm	1,050 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	PEL	300 ppm	1,050 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Benzene	REL	0.1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	TWA	1 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	Ceiling	25 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended (02 2006)

	TWA	0.5 ppm	US. ACGIH Threshold Limit Values, as amended (2008)
	STEL	2.5 ppm	US. ACGIH Threshold Limit Values, as amended (2008)
	STEL	5 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended (02 2006)
	OSHA_ACT	0.5 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended (02 2006)
	TWA	10 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000), as amended (02 2006)
	MAX. CONC	50 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000), as amended (02 2006)
	STEL	5 ppm	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	TWA	1 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended (02 2006)
	STEL	1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (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)
Benzene, dimethyl- (Methylhippuric acids: Sampling time: End of shift.)	1.5 g/g (Creatinine in urine)	ACGIH BEL (03 2013)
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, 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 (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 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

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:	Estimated 56 °C
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 (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	4,826 - 6,205 hPa (20 °C)
Vapor density:	No data available.
Density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

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

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Ingestion: No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

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

Specified substance(s):

2-Propanone	LD 50 (Rat): 5,800 mg/kg
Naphtha (petroleum), hydrotreated light	LD 50 (Rat): > 5,000 mg/kg
Heptane	LD 50 (Rat): > 5,000 mg/kg
Benzene, dimethyl-	LD 50 (Rat): 3,523 mg/kg
Benzene, ethyl-	LD 50 (Rat): 3,500 mg/kg
Benzene, methyl-	LD 50 (Rat): 5,580 mg/kg

Dermal

Product: ATEmix: 24,875.62 mg/kg

Inhalation

Product: ATEmix: 169.6 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
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.

Specified substance(s):

2-Propanone	in vivo (Rabbit): Not irritant Experimental result, Supporting study
Naphtha (petroleum), hydrotreated light	In vitro (Human): not corrosive Experimental result, Supporting study
Heptane	in vivo (Rabbit): Irritating Read-across based on grouping of substances (category approach), Key study
Benzene, dimethyl-	in vivo (Rabbit): Moderate irritant Experimental result, Weight of Evidence study estimated Irritating.
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
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.

Specified substance(s):

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.

Specified substance(s):

Cyclohexane, methyl- May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Benzene, ethyl- Overall evaluation: 2B. Possibly carcinogenic to humans.

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

No carcinogenic components identified

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

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

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.
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.

Specified substance(s):

Benzene, ethyl- Category 2
Benzene, methyl- Category 2

Target Organs

Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

Aspiration Hazard

Product: No data available.

Specified substance(s):

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.

Specified substance(s):

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.

Specified substance(s):

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.

Specified substance(s):

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.

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
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.

Specified substance(s):

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.

Specified substance(s):

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.

Specified substance(s):

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.

Known or predicted distribution to environmental compartments

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):	—
Packing Group:	—
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:	2.1
Label(s):	—
EmS No.:	F-D, S-U
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), 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):

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

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
Heptane	lbs. 100
Benzene, dimethyl-	lbs. 100
Benzene, ethyl-	lbs. 1000
Cyclohexane, methyl-	lbs. 100
Benzene, methyl-	lbs. 1000
Hexane	lbs. 5000
Cyclohexane	lbs. 1000
Benzene	lbs. 10

SARA 311/312 Hazardous Chemical

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

Benzene, ethyl-	Carcinogenic. 05 2011
Benzene, methyl-	Developmental toxin. 03 2008
Hexane	Male reproductive toxin. 12 2017
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
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
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Issue Date: 08/25/2021

Revision Information: No data available.

Version #: 2.0

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.