

SAFETY DATA SHEET

Classified in accordance with Health Canada Hazardous Products Regulations (SOR/2015-17)

1. Identification

Product identifier: Gasoline Blendstock C9**Other means of identification****Common name(s),** C9+, mixed hydrocarbons, C9-200 (Corunna)**synonym(s):****SDS number:** NOVA-0020**Recommended use and restriction on use****Recommended use:** Gasoline blending or fuel products blending.**Restrictions on use:** All uses other than the identified.**Manufacturer/Importer/Supplier/Distributor Information****Manufacturer**

Company Name: NOVA Chemicals
Address: P.O. Box 2518, Station M
Calgary, Alberta, Canada T2P 5C6
Telephone: Product Information: 1-412-490-4063
SDS Information Email: msdsemail@novachem.com

Emergency telephone number:

1-800-561-6682, 1-403-314-8767 (NOVA Chemicals) (24 hours)

1-800-424-9300 (CHEMTREC) (24 hours)

2. Hazard(s) identification

Hazard Classification According to Hazardous Products Regulations**Physical Hazards**

Flammable liquids	Category 3
Physical Hazards Not Otherwise Classified (PHNOC) - Static-accumulating flammable liquid	Category 1

Health Hazards

Acute toxicity (Oral)	Category 4
Acute toxicity (Inhalation - vapour)	Category 3
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive toxicity	Category 2
Specific Target Organ Toxicity - Single Exposure	Category 3
Specific Target Organ Toxicity - Repeated Exposure	Category 1
Aspiration Hazard	Category 1

Environmental Hazards

Acute hazards to the aquatic environment	Category 1
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Chronic hazards to the aquatic
environment

Category 1

Label Elements**Hazard Symbol:****Signal Word:**

Danger

Hazard Statement:

Flammable liquid and vapour.
Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.
Sparks may ignite liquid and vapour.
May cause flash fire or explosion.
Toxic if inhaled.
Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
May cause genetic defects.
May cause cancer.
Suspected of damaging fertility or the unborn child.
May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure.
(Auditory system)
(Blood)
May be fatal if swallowed and enters airways.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements:**Prevention:**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe fume or vapours. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection. Avoid release to the environment.

Response:

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTRE. IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water [or shower]. If skin irritation occurs: Get medical advice. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE. 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 attention. IF exposed or concerned: Get medical attention. In case of fire: Use dry chemical, foam, carbon dioxide (CO₂), water spray or fog to extinguish. Collect spillage.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Keep cool. Store locked up.

Disposal:

Dispose of contents and container in accordance with local regulations.

Other hazards which do not result in GHS classification:

None.

3. Composition/information on ingredients**Mixtures**

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
4,7-Methano-1H-indene, 3a,4,5,6,7,7a-hexahydro-	Dihydrodicyclopentadiene	4488-57-7	40 - 65%
n-Undecane	Undecane	1120-21-4	2 - 10%
Propylcyclopentane	Cyclopentane, propyl-	2040-96-2	0 - 10%
4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-	Dicyclopentadiene, DCPD	77-73-6	2 - 8%
Benzene, trimethyl-	Trimethylbenzene	25551-13-7	0 - 6%
Naphthalene	Naphthalene	91-20-3	0.7 - 5%
Benzene, 1-methyl-2-(1-methylethyl)-	o-Cymene, 1-Isopropyl-2-methylbenzene	527-84-4	0 - 5%
Benzene, 1-methyl-3-(1-methylethyl)-	1-Methyl-3-isopropylbenzene, m-Cymene	535-77-3	0 - 5%
Benzene, propyl-	Propylbenzene	103-65-1	0 - 3%
Benzene, ethenyl-	Styrene	100-42-5	0 - 2%
Benzene	Benzol	71-43-2	0 - 2%
1,3-Cyclopentadiene	Cyclopentadiene	542-92-7	0 - 1%
Benzene, 1,2-dimethyl-	o-Xylene	95-47-6	0 - 1%
Benzene, (1-methylethyl)-	Isopropylbenzene (Cumene)	98-82-8	0 - 1%
Benzene, 1-methyl-2-propyl-	1-Methyl-2-propylbenzene	1074-17-5	0 - 1%
Benzene, 1,3,5-trimethyl-	Mesitylene	108-67-8	0 - 1%
Benzene, ethyl-	Ethylbenzene, Phenylethane	100-41-4	0 - 0.9%
Benzene, butyl-	1-Phenylbutane	104-51-8	0 - 0.8%
Butane, 2,2,3-trimethyl-	Butane, 2,3,3-trimethyl-	464-06-2	0 - 0.2%
Toluene	Methylbenzene	108-88-3	0 - 0.2%
Pentane, 2,3,4-trimethyl-	2,3,4-Trimethylpentane	565-75-3	0 - 0.15%
Hexane, 3-methyl-	3-Methylhexane	589-34-4	0 - 0.1%
Hexane	n-Hexane	110-54-3	0 - 0.1%
Nonane	n-Nonane	111-84-2	0 - 0.1%

* All concentrations are percent by weight.

Additional Information:

This product has been assigned a CAS # of 68553-14-0 – Hydrocarbons, C8-11. This product is considered hazardous by the Hazardous Products Regulations.

4. First-aid measures**Inhalation:**

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE.

Ingestion:

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTRE.

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water [or shower]. If skin irritation occurs: Get medical advice.

Eye contact: 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 attention.

Most important symptoms/effects, acute and delayed

Symptoms: Skin irritation. Eye irritation. Respiratory irritation. Blood disorders. Auditory system disorders.

Indication of immediate medical attention and special treatment needed

Treatment: Ensure thorough eye and skin decontamination. Treat unconsciousness, nausea, hypotension, seizures and cardiac dysrhythmias in the conventional manner. Administer oxygen by mask if there is respiratory distress, any change in level of consciousness, or cardiac rhythm disturbance. Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use the method least likely to cause aspiration, such as gastric lavage after protecting the airway.

5. Fire-fighting measures

General Fire Hazards: Flammable liquid and vapour. Presence of strong oxidizers can increase fire and explosion hazard. Vapours are heavier than air and may travel to a source of ignition and flash back. Closed containers may rupture violently when heated. If tank, rail car or tank truck is involved in fire, ISOLATE for 800 metres (1/2 mile) in all directions; also, consider initial evacuation for 800 metres (1/2 mile) in all directions. Vapours may form explosive mixture with air. Keep containers away from source of heat or fire. This product may be a static accumulator which can form an ignitable vapour-air mixture in a storage tank.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use dry chemical, foam, carbon dioxide (CO₂), water spray or fog to extinguish. Use water to cool fire-exposed containers and to protect personnel.

Unsuitable extinguishing media: Do not use straight/direct streams as this may actually spread flames.

Specific hazards arising from the chemical: Upon combustion, this product emits carbon monoxide, carbon dioxide, low molecular weight hydrocarbons.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures: Keep upwind. Keep unauthorized personnel away. Move containers from fire area if you can do so without risk. Fight fire from maximum distance or use unmanned holders or monitor nozzles. Immediately withdraw in case of fire and container venting or heat discolouration of a container. Avoid inhaling any smoke and combustion materials. Remove and isolate contaminated clothing and shoes. Cool containers with flooding quantities of water until well after the fire is out. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Reference Emergency Response Guidebook No. 128 for additional details and instructions.

Special protective equipment Wear positive pressure self-contained breathing apparatus (SCBA).
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for fire-fighters: Structural fire-fighters' protective clothing provides thermal protection **but only limited chemical protection.**

6. Accidental release measures

**Personal precautions,
protective equipment and
emergency procedures:**

Wear appropriate personal protective equipment. Isolate area. Keep unauthorized personnel away. Alert stand-by emergency and fire-fighting personnel. Monitor surrounding area for buildup of flammable concentrations in air.

**Methods and material for
containment and cleaning
up:**

Do not touch or walk through spilled material. In case of leakage, eliminate all ignition sources. As an immediate precautionary measure, isolate spill or leak area for at least 50 metres (164 feet) in all directions. All equipment used when handling the product must be grounded. Keep upwind. Keep out of low areas. Stop leak if safe to do so. Contain discharge by booming on water or diking on ground. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

Small Spills: Remove liquid material with non-sparking approved pumps, skimmers or vacuum equipment. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Use non-sparking tools.

Large Spills: Consider downwind evacuation for 300 metres (1000 feet). A vapour-suppressing foam may be used to reduce vapours. Remove pooled liquid material with approved, non-sparking pumps, skimmers or vacuum equipment. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Soil remediation may be required.

7. Handling and storage

Precautions for safe handling:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use non-sparking tools. Take action to prevent static discharges. These alone may be insufficient to remove static electricity. For additional information on equipment bonding and grounding, refer to the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity". For additional information on storing and handling flammable liquids, refer to the National Fire Protection Association (NFPA) 30, "Flammable and Combustible Liquids Code". Take special precautions when cold cutting or breaking into lines, or when cleaning and disposing of empty containers. Do not breathe fume or vapours. Avoid contact with skin and eyes. Keep away from incompatible materials such as oxidizing agents and acids. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection. In case of inadequate ventilation, use respiratory protection. Avoid release to the environment.

**Conditions for safe storage,
including any
incompatibilities:**

Storage area should be clearly identified, well-illuminated and clear of obstruction. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep cool. Only allow access to authorized persons. Store and handle in properly designed pressure vessels and equipment. Store and use away from heat, sparks, open flame, or any other ignition source. Use non-sparking ventilation systems, approved explosion-proof

equipment, and intrinsically safe electrical systems. Have appropriate extinguishing capability in storage area (e.g. sprinkler system, portable fire extinguishers) and flammable gas detectors. Keep absorbents for leaks and spills readily available. Consider use of floating roof or nitrogen blanketed tanks or where venting to atmosphere is permissible, equip storage tank vents with flame arrestors. Inspect vents during winter conditions for vapour ice buildup. Storage tanks should be above ground and diked to hold entire contents. Store away from incompatible materials. Store according to applicable regulations and standards for flammable materials.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values		Source
4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-	TWA	5 ppm	27 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-	TWA	5 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-	TWA	5 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-	TWA	5 ppm	27 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-	REL	5 ppm	30 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-	TWA	0.5 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	1 ppm		US. ACGIH Threshold Limit Values, as amended
Benzene, trimethyl-	TWA	25 ppm	123 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Benzene, trimethyl-	TWA	25 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Benzene, trimethyl-	TWA	25 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Benzene, trimethyl-	TWA	25 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Benzene, trimethyl-	REL	25 ppm	125 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, trimethyl-	TWA	10 ppm		US. ACGIH Threshold Limit Values, as amended
Naphthalene	TWA	10 ppm	52 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
	STEL	15 ppm	79 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Naphthalene	TWA	10 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Naphthalene	TWA	10 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Naphthalene	TWA	10 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Naphthalene	TWA	10 ppm		US. ACGIH Threshold Limit Values, as amended
Naphthalene	REL	10 ppm	50 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended

Naphthalene	STEL	15 ppm	75 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Naphthalene	IDLH	250 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Benzene, 1-methyl-2-(1-methylethyl)-	TWA	50 ppm	274 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Benzene, 1-methyl-3-(1-methylethyl)-	TWA	50 ppm	274 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Benzene, ethenyl-	STEL	40 ppm	170 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
	TWA	20 ppm	85 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Benzene, ethenyl-	TWA	35 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
	STEL	100 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Benzene, ethenyl-	TWA	20 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
	STEL	40 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Benzene, ethenyl-	STEL	75 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
	TWA	50 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Benzene, ethenyl-	REL	50 ppm	215 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, ethenyl-	STEL	100 ppm	425 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, ethenyl-	IDLH	700 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Benzene, ethenyl-	STEL	20 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	10 ppm		US. ACGIH Threshold Limit Values, as amended
Benzene	STEL	2.5 ppm	8 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
	TWA	0.5 ppm	1.6 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Benzene	STEL	2.5 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
	TWA	0.5 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Benzene	STEL	2.5 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
	TWA	0.5 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Benzene	TWA	1 ppm	3 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
	STEL	5 ppm	15.5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Benzene	REL	0.1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene	STEL	1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene	IDLH	500 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Benzene	TWA	0.02 ppm		US. ACGIH Threshold Limit Values, as amended
1,3-Cyclopentadiene	TWA	75 ppm	203 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
1,3-Cyclopentadiene	TWA	75 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
1,3-Cyclopentadiene	TWA	75 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
1,3-Cyclopentadiene	TWA	75 ppm	203 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
1,3-Cyclopentadiene	REL	75 ppm	200 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
1,3-Cyclopentadiene	IDLH	750 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
1,3-Cyclopentadiene	STEL	1 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	0.5 ppm		US. ACGIH Threshold Limit Values, as amended
Benzene, 1,2-dimethyl-	TWA	100 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
	STEL	150 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Benzene, 1,2-dimethyl-	TWA	100 ppm	434 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
	STEL	150 ppm	651 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Benzene, 1,2-dimethyl-	STEL	150 ppm	651 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
	TWA	100 ppm	434 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Benzene, 1,2-dimethyl-	TWA	100 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
	STEL	150 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Benzene, 1,2-dimethyl-	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, 1,2-dimethyl-	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, 1,2-dimethyl-	IDLH	900 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Benzene, 1,2-dimethyl-	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended
Benzene, (1-methylethyl)-	TWA	50 ppm	246 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Benzene, (1-methylethyl)-	STEL	75 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
	TWA	25 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Benzene, (1-methylethyl)-	TWA	50 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Benzene, (1-methylethyl)-	TWA	50 ppm	246 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Benzene, (1-methylethyl)-	REL	50 ppm	245 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended

Benzene, (1-methylethyl)-	IDLH	900 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Benzene, (1-methylethyl)-	TWA	5 ppm		US. ACGIH Threshold Limit Values, as amended
Benzene, 1,3,5-trimethyl-	TWA	25 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Benzene, 1,3,5-trimethyl-	TWA	25 ppm	123 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Benzene, 1,3,5-trimethyl-	TWA	25 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Benzene, 1,3,5-trimethyl-	TWA	25 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Benzene, 1,3,5-trimethyl-	REL	25 ppm	125 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, 1,3,5-trimethyl-	TWA	10 ppm		US. ACGIH Threshold Limit Values, as amended
Benzene, ethyl-	STEL	125 ppm	543 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
	TWA	100 ppm	434 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Benzene, ethyl-	TWA	20 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Benzene, ethyl-	TWA	20 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Benzene, ethyl-	TWA	20 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Benzene, ethyl-	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended
Benzene, ethyl-	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, ethyl-	STEL	125 ppm	545 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, ethyl-	IDLH	800 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Butane, 2,2,3-trimethyl-	STEL	500 ppm	2,050 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
	TWA	400 ppm	1,640 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Butane, 2,2,3-trimethyl-	TWA	400 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
	STEL	500 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Butane, 2,2,3-trimethyl-	TWA	400 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
	STEL	500 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Butane, 2,2,3-trimethyl-	STEL	500 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	400 ppm		US. ACGIH Threshold Limit Values, as amended
Toluene	TWA	50 ppm	188 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Toluene	TWA	20 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended

Toluene	TWA	20 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Toluene	TWA	50 ppm	188 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Toluene	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended
Toluene	STEL	150 ppm	560 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Toluene	REL	100 ppm	375 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Toluene	IDLH	500 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Pentane, 2,3,4-trimethyl-	TWA	300 ppm	1,400 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Pentane, 2,3,4-trimethyl-	TWA	300 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Pentane, 2,3,4-trimethyl-	TWA	300 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Pentane, 2,3,4-trimethyl-	TWA	300 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Pentane, 2,3,4-trimethyl-	REL	75 ppm	350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Pentane, 2,3,4-trimethyl-	Ceil_Time	385 ppm	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Pentane, 2,3,4-trimethyl-	TWA	300 ppm		US. ACGIH Threshold Limit Values, as amended
Pentane, 2,3,4-trimethyl-	IDLH	1,000 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Hexane, 3-methyl-	STEL	500 ppm	2,050 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
	TWA	400 ppm	1,640 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Hexane, 3-methyl-	TWA	400 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
	STEL	500 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Hexane, 3-methyl-	STEL	500 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
	TWA	400 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Hexane, 3-methyl-	TWA	400 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
	STEL	500 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Hexane, 3-methyl-	TWA	400 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	500 ppm		US. ACGIH Threshold Limit Values, as amended
Hexane	TWA	50 ppm	176 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Hexane	TWA	20 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Hexane	TWA	50 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended

Hexane	TWA	50 ppm	176 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Hexane	TWA	50 ppm		US. ACGIH Threshold Limit Values, as amended
Hexane	REL	50 ppm	180 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Hexane	IDLH	1,100 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Nonane	TWA	200 ppm	1,050 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Nonane	TWA	200 ppm	1,050 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Nonane	TWA	200 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Nonane	TWA	200 ppm		Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
Nonane	REL	200 ppm	1,050 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Nonane	TWA	200 ppm		US. ACGIH Threshold Limit Values, as amended

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Benzene, ethenyl- (styrene: Sampling time: End of shift.)	20 µg/l (Urine)	ACGIH BEI
Benzene, ethenyl- (Mandelic acid plus phenylglyoxylic acid: Sampling time: End of shift.)	150 mg/g (Creatinine in urine)	ACGIH BEI
Benzene (S-Phenylmercapturic acid: Sampling time: End of shift.)	25 µg/g (Creatinine in urine)	ACGIH BEI
Benzene (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEI
Benzene, 1,2-dimethyl- (Methylhippuric acids: Sampling time: End of shift.)	0.3 g/g (Creatinine in urine)	ACGIH BEI
Benzene, ethyl- (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)	150 mg/g (Creatinine in urine)	ACGIH BEI
Toluene (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEI
Toluene (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEI
Toluene (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEI
Hexane (2,5-Hexanedione, without hydrolysis: Sampling time: End of shift.)	0.5 mg/l (Urine)	ACGIH BEI

Exposure guidelines

Chemical Identity	Notations	Source
Naphthalene	Can be absorbed through the skin.	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
	Can be absorbed through the skin.	Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended

	Can be absorbed through the skin.	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
	Can be absorbed through the skin.	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Benzene, 1-methyl-2-(1-methylethyl)-	Can be absorbed through the skin.	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Benzene, 1-methyl-3-(1-methylethyl)-	Can be absorbed through the skin.	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Benzene	Can be absorbed through the skin.	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
	Can be absorbed through the skin.	Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
	Can be absorbed through the skin.	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Toluene	Can be absorbed through the skin.	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
	Can be absorbed through the skin.	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended
Hexane	Can be absorbed through the skin.	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
	Can be absorbed through the skin.	Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended
	Can be absorbed through the skin.	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
	Can be absorbed through the skin.	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended

Appropriate Engineering Controls

Engineering methods to reduce hazardous exposure are preferred controls. Methods include mechanical ventilation (dilution and local exhaust) process or personal enclosure, remote and automated operation, control of process conditions, leak detection and repair systems, and other process modifications. Ensure all exhaust ventilation systems are discharged to outdoors, away from air intakes and ignition sources. Supply sufficient replacement air to make up for air removed by exhaust systems. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Administrative (procedure) controls and use of personal protective equipment may also be required.

Individual protection measures, such as personal protective equipment (PPE)

General information:

Personal protective equipment (PPE) should not be considered a long-term solution to exposure control. Employer programs to properly select, fit, maintain and train employees to use equipment must accompany PPE. Consult a competent industrial hygiene resource, the PPE manufacturer's recommendation, and/or applicable regulations to determine hazard potential and ensure adequate protection.

Eye/face protection:

Safety glasses. Chemical goggles are recommended if splashing is possible or to prevent eye irritation from vapours.

Skin Protection

Hand Protection:

Chemical resistant gloves.

Skin and Body Protection:

Wear appropriate clothing to prevent any possibility of skin contact. Wear work clothes with long sleeves and pants. If splashing or contact with liquid material is possible, consider the need for an impervious overcoat. Fire

resistant (i.e., Nomex) or natural fibre clothing (i.e., cotton or wool) is recommended. Synthetic clothing can generate static electricity and is not recommended where a flammable vapour release may occur. Wear chemical-resistant safety footwear with good traction to prevent slipping. Static Dissipative (SD) rated footwear is also recommended.

Respiratory Protection: Appropriate NIOSH approved air-purifying respirator that meets the requirements of CSA Standard CAN/CSA-Z94.4, or self-contained breathing apparatus should be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators or IDLH levels.

Hygiene measures: Use effective control measures and PPE to maintain worker exposure to concentrations that are below these limits. Ensure that eyewash stations and safety showers are in close proximity to work locations.

9. Physical and chemical properties

Appearance

Physical state: liquid

Form: liquid

Colour: Amber

Odour: Aromatic

Odour Threshold: No data available.

Melting point/freezing point: < -60 °C (< -76 °F)

Initial boiling point and boiling range: 75 - 225 °C (167 - 437 °F)

Flammability: not applicable

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%): 7 - 12 %(V) (estimated)

Flammability limit - lower(%): 1 %(V) (estimated)

Flash Point: 33 - 39 °C (91 - 102 °F)

Auto-ignition temperature: 425 °C (797 °F)

Decomposition temperature: No data available.

pH: not applicable

Kinematic viscosity: 2.5 - 3 mm²/s (40 °C (104 °F)), estimated

Solubility(ies)

Solubility in water: negligible solubility

Solubility (other): No data available.

Partition coefficient (n-octanol/water): No data available.

Vapour pressure: 0.4 - 10.0 kPa (37.8 °C (100.0 °F)) (Reid Vapour Pressure)

Evaporation rate: No data available.

Density: 900 - 980 kg/m³

Relative density: 0.90 - 0.98 (Water=1)

Vapour density: 3.5 (Air=1)

Particle characteristics

Particle Size: not applicable

Other information

Explosive properties: No data available.

10. Stability and reactivity

Reactivity:	Contact with incompatible materials. Sources of ignition. Exposure to heat.
Chemical Stability:	Stable under normal storage conditions. Some components of the product become unstable at elevated temperatures and pressures. Antioxidant No. 22 is added to reduce 'gum' formation.
Possibility of Hazardous Reactions:	No data available.
Conditions to Avoid:	Contact with incompatible materials. Sources of ignition. Exposure to heat.
Incompatible Materials:	Oxidizers. Presence of strong oxidizers can increase fire and explosion hazard.
Hazardous Decomposition Products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide, low molecular weight hydrocarbons.

11. Toxicological information**Information on likely routes of exposure**

Inhalation:	Toxic if inhaled. Excessive inhalation may result in heartbeat irregularities, blood disorders and possibly cancer. Minute amounts aspirated into the lungs during ingestion or vomiting may cause severe pulmonary injury.
Ingestion:	Harmful if swallowed. Minute amounts aspirated into the lungs during ingestion or vomiting may cause severe pulmonary injury. Ingestion of this product may result in vomiting, nausea and abdominal pain. Ingestion may also cause blood disorders.
Skin Contact:	Causes skin irritation.
Eye contact:	Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	Heartbeat irregularities, blood disorders, cancer, respiratory irritation. Prolonged exposure may cause hearing impairment.
Ingestion:	Vomiting, nausea and abdominal pain.
Skin Contact:	Skin irritation.
Eye contact:	Eye irritation.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product:	ATEmix: 556 mg/kg
Dermal Product:	Not classified for acute toxicity based on available data.
Inhalation Product:	ATEmix: 5.93 mg/l

Repeated dose toxicity**Product:** No data available.**Components:**

Benzene
LOAEL (Rat, Oral): 25 mg/kg (Target Organ(s): Blood)
LOAEL (Rat, Inhalation - vapour): 0.958 mg/l (Target Organ(s): Blood)
LOAEL (Human, Inhalation - vapour): 0.0018 mg/l (Target Organ(s): Blood)

Skin Corrosion/Irritation**Product:** Causes skin irritation.**Serious Eye Damage/Eye Irritation****Product:** Causes serious eye irritation.**Respiratory or Skin Sensitization****Product:** No data available.**Components:**

4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-
Skin sensitization:, Draize (Guinea Pig): Not a skin sensitizer.

Carcinogenicity**Product:** May cause cancer.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Naphthalene Overall evaluation: 2B. Possibly carcinogenic to humans.
Benzene, ethenyl- Overall evaluation: 2A. Probably carcinogenic to humans.
Benzene Overall evaluation: 1. Carcinogenic to humans.
Benzene, (1-methylethyl)- Overall evaluation: 2B. Possibly carcinogenic to humans.
Benzene, ethyl- Overall evaluation: 2B. Possibly carcinogenic to humans.

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

Naphthalene Reasonably Anticipated to be a Human Carcinogen.
Benzene, ethenyl- Reasonably Anticipated to be a Human Carcinogen.
Benzene Known To Be Human Carcinogen.
Benzene, (1-methylethyl)- Reasonably Anticipated to be a Human Carcinogen.

ACGIH Carcinogen List:

Naphthalene Group A3: Confirmed animal carcinogen with unknown relevance to humans.
Benzene, ethenyl- Group A3: Confirmed animal carcinogen with unknown relevance to humans.
Benzene Group A1: Confirmed human carcinogen.
Benzene, (1-methylethyl)- Group A3: Confirmed animal carcinogen with unknown relevance to humans.
Benzene, ethyl- Group A3: Confirmed animal carcinogen with unknown relevance to humans.

Germ Cell Mutagenicity**In vitro****Product:** May cause genetic defects.**In vivo****Product:** May cause genetic defects.**Reproductive toxicity****Product:** Suspected of damaging fertility or the unborn child.**Specific Target Organ Toxicity - Single Exposure****Product:** May cause respiratory irritation.**Specific Target Organ Toxicity - Repeated Exposure****Product:** Auditory system, Blood - Causes damage to organs through prolonged or repeated exposure.

Aspiration Hazard**Product:** May be fatal if swallowed and enters airways.**Other effects:** Xylene is a developmental toxicant in Canada.**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** Very toxic to aquatic life.**Aquatic Invertebrates****Product:** Very toxic to aquatic life.**Toxicity to aquatic plants****Product:** Very toxic to aquatic life.**Chronic hazards to the aquatic environment:****Fish****Product:** Very toxic to aquatic life with long lasting effects.**Aquatic Invertebrates****Product:** Very toxic to aquatic life with long lasting effects.**Toxicity to aquatic plants****Product:** Very toxic to aquatic life with long lasting effects.**Persistence and Degradability****Biodegradation****Product:** No data available.**BOD/COD Ratio****Product:** No data available.**Bioaccumulative Potential****Bioconcentration Factor (BCF)****Product:** No data available.**Components:**4,7-Methano-1H-indene,
3a,4,7,7a-tetrahydro- Carp, Bioconcentration Factor (BCF): 58.9 - 384Benzene Pimephales promelas, Bioconcentration Factor (BCF): 13 Aquatic sediment
QSAR, Key study

Benzene, 1,2-dimethyl- Bioconcentration Factor (BCF): 25.9

Benzene, (1-methylethyl)- Bioconcentration Factor (BCF): 94.69 (calculated)

Toluene Leuciscus idus melanotus, Bioconcentration Factor (BCF): 90 Aquatic
sediment Experimental result, Key study**Partition Coefficient n-octanol / water (log Kow)****Product:** No data available.

Components:

4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-	2.78
Naphthalene	3.30
Benzene, 1-methyl-2-(1-methylethyl)-	4.26
Benzene, 1-methyl-3-(1-methylethyl)-	4.5
Benzene, propyl-	3.69
Benzene, ethenyl-	2.95
Benzene	2.13
1,3-Cyclopentadiene	2.25
Benzene, 1,2-dimethyl-	3.12
Benzene, (1-methylethyl)-	3.66
Benzene, 1,3,5-trimethyl-	3.42
Benzene, ethyl-	3.15
Toluene	2.73
Hexane	3.90
Nonane	5.65

Mobility in Soil: Some migration through soils and groundwater.

Other Adverse Effects: No data available.

13. Disposal considerations

Disposal instructions: Dispose of contents and container in accordance with local regulations. Waste generator is advised to carefully consider hazardous properties and control measures needed for other materials that may be found in the waste.

Contaminated Packaging: Check local, federal and provincial environmental regulations prior to disposal.

14. Transport information**TDG**

UN number or ID number:	UN 1268
UN Proper Shipping Name:	PETROLEUM DISTILLATES, N.O.S.
Class	3
Packing Group	III
Label(s)	3
Special precautions for user:	Reference Emergency Response Guidebook No. 128, latest revision.

IMDG

UN number or ID number:	UN 1268
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UN Proper Shipping Name:	PETROLEUM DISTILLATES, N.O.S.
Transport Hazard Class(es)	
Class:	3
Label(s):	3
EmS No.:	F-E, S-E
Packing Group:	III
Marine pollutant:	Yes
Limited quantity	5.00L
Excepted quantity	E1
Special precautions for user:	Transport in bulk according to IMO instruments

15. Regulatory information

Canada Federal Regulations

List of Toxic Substances (CEPA, Schedule 1)

Chemical Identity

Naphthalene
Benzene

Name on List:

Naphthalene
Benzene

Export Control List (CEPA 1999, Schedule 3)

Not regulated

Greenhouse Gases

Not regulated

Precursor Control Regulations

Chemical Identity

Toluene

Canada. Substances Subject to Significant New Activity (SNAC) Reporting Requirements

Not regulated

Inventory status

Canada DSL Inventory List: On or in compliance with the inventory

US TSCA Inventory: On or in compliance with the inventory

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

Issue Date: 04/14/2025

Revision Information:

04/14/2025: SDS Update – composition edits, phrasing updates
08/28/2024: SDS Update – OEL updates and phrase edits
06/14/2024: SDS Update – Emergency response telephone number updated, composition edits, OEL updates, phrase edits
07/12/2023: SDS Update – GHS classification change, composition edits, phrase edits
10/14/2022: SDS Update – OEL updates, section 9 edits, section 15 edits
04/18/2022: SDS Update – composition edits, OEL updates, section 15 updates
10/08/2021: SDS Update – OEL updates, Section 9 edits, phrase edits
04/14/2021: SDS Update – composition edits, ATEmix edits
12/16/2020: SDS Update – composition edits, OEL updates, section 15 updates
08/19/2020: SDS Update – GHS classification change, composition edits, OEL edits, section 15 edits, and phrase edits
04/21/2020: SDS Update – composition edits
12/12/2019: SDS Update

Version #: 8.9

Abbreviations and acronyms: ACGIH = American Conference of Governmental Industrial Hygienists; BOD = Biochemical Oxygen Demand; CAS = Chemical Abstracts Service; CEPA = Canadian Environmental Protection Act; COD = Chemical Oxygen Demand; DSL = Domestic Substances List; EC50 = Effective Concentration 50%; EPA = Environmental Protection Agency; GHS = Globally Harmonized System for the Classification and Labelling of Chemicals; IARC = International Agency for Research on Cancer; IDLH = Immediately Dangerous to Life or Health; Kow = Octanol/water partition coefficient; LC50 = Lethal Concentration 50%; LD50 = Lethal Dose 50%; LEL = Lower Explosive Limit; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Association; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OEL = Occupational Exposure Limit; OSHA = Occupational Safety and Health Administration; PNOC = Particulates Not Otherwise Classified; PPE = Personal Protective Equipment; REL = Recommended Exposure Limit; SCBA = Self Contained Breathing Apparatus; SDS = Safety Data Sheet; STEL = Short Term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average

Further Information: For additional information on equipment bonding and grounding, refer to the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity".

For additional information on storing and handling flammable liquids, refer to the National Fire Protection Association (NFPA) 30, "Flammable and Combustible Liquids Code".

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