

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Date of Issue: 06/06/2023 Version: 1.0

## **SECTION 1: IDENTIFICATION**

# 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Demthanized Mix Y Grade **1.2.** Intended Use of the Product

Feedstock for fractionation / distillation

#### 1.3. Name, Address, and Telephone of the Responsible Party

## Company

Williams Inc.

One Williams Center Tulsa, OK 74172 855-945-5762

www.williams.com ehs@williams.com

#### 1.4. Emergency Telephone Number

**Emergency Number**: VelocityEHS

(800)255-3924 (North America) +1 (813)248-0585 (International)

Security.OperationsCenter@williams.com

#### **SECTION 2: HAZARDS IDENTIFICATION**

### 2.1. Classification of the Substance or Mixture

#### **GHS-US/CA Classification**

Flammable gases Category 1

Gases under pressure Liquefied gas	H280
Skin corrosion/irritation Category 2	H315
Germ cell mutagenicity Category 1B	H340
Carcinogenicity Category 1A	H350
Reproductive toxicity Category 2	H361
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336
Specific target organ toxicity (repeated exposure) Category 2	H373
Simple Asphyxiant	
Hazardous to the aquatic environment – Acute Hazard Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard Category 2	H411

#### 2.2. Label Elements

#### **GHS-US/CA Labeling**

Hazard Pictograms (GHS-US/CA)











Signal Word (GHS-US/CA)
Hazard Statements (GHS-US/CA)

: Danger

: H220 - Extremely flammable gas.

H280 - Contains gas under pressure; may explode if heated.

H220

H315 - Causes skin irritation.

H336 - May cause drowsiness or dizziness.

H340 - May cause genetic defects.

H350 - May cause cancer.

H361 - Suspected of damaging fertility or the unborn child.

H373 - May cause damage to organs through prolonged or repeated exposure.

H400 - Very toxic to aquatic life.

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H411 - Toxic to aquatic life with long lasting effects.

May displace oxygen and cause rapid suffocation.

Precautionary Statements (GHS-US/CA): P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P260 - Do not breathe vapors, mist, or spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, and eye protection.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P321 - Specific treatment (see section 4 on this SDS).

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

P381 - In case of leakage, eliminate all ignition sources.

P391 - Collect spillage.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P410+P403 - Protect from sunlight. Store in a well-ventilated place.

P501 - Dispose of contents/container in accordance with local, regional, national,

territorial, provincial, and international regulations.

#### 2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Contact with gas escaping the container can cause frostbite.

### **Unknown Acute Toxicity (GHS-US/CA)**

No additional information available

#### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.1. **Substance**

Not applicable

#### 3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Propane	Normal propane / PROPANE / n-Propane / R290	(CAS-No.) 74-98-6	< 70	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy
Ethane	Ethyl hydride / ETHANE	(CAS-No.) 74-84-0	< 65	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy
n-Butane	Butane / BUTANE	(CAS-No.) 106-97-8	< 35	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy
Isobutane	2-Methylpropane / Propane, 2-methyl- / ISOBUTANE / R600a / isobutane	(CAS-No.) 75-28-5	< 15	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Simple Asphy
Isopentane	Butane, 2-methyl- / 2- Methylbutane / ISOPENTANE / Methylbutane / isopentane	(CAS-No.) 78-78-4	< 10	Flam. Liq. 1, H224 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411

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n-Pentane	Pentane / Normal pentane / PENTANE / Pentane, n-	(CAS-No.) 109-66-0	< 10	Flam. Liq. 1, H224 STOT SE 3, H336
				-
				Asp. Tox. 1, H304
				Aquatic Acute 2, H401
	C data a seconda la /	(2.2.)		Aquatic Chronic 2, H411
Methylcyclohexane	Cyclohexane, methyl- / Cyclohexylmethane / Methyl	(CAS-No.) 108-87-2	< 4.5	Flam. Liq. 2, H225
	cyclohexane			Skin Irrit. 2, H315
				STOT SE 3, H336
				Asp. Tox. 1, H304
				Aquatic Acute 1, H400
				Aquatic Chronic 1, H410
n-hexane	Hexane, n- / n-Hexane /	(CAS-No.) 110-54-3	< 3.5	Flam. Liq. 2, H225
	Normal hexane			Skin Irrit. 2, H315
				Repr. 2, H361
				STOT SE 3, H336
				STOT RE 2, H373
				Asp. Tox. 1, H304
				Aquatic Acute 2, H401
				Aquatic Chronic 2, H411
2-Methylpentane	Isohexane / Pentane, 2-	(CAS-No.) 107-83-5	< 3	Flam. Liq. 2, H225
2 Westry persone	methyl-	(6/15/1101) 20/ 00/5		Skin Irrit. 2, H315
				STOT SE 3, H336
				Asp. Tox. 1, H304
- Hankana	Heptane, n- / HEPTANE /	/CAC N - \ 442 02 5	.2.5	Aquatic Chronic 2, H411
n-Heptane	Normal heptane / Heptane /	(CAS-No.) 142-82-5	< 2.5	Flam. Liq. 2, H225
	Heptane (n-)			Skin Irrit. 2, H315
				STOT SE 3, H336
				Asp. Tox. 1, H304
				Aquatic Acute 1, H400
				Aquatic Chronic 1, H410
Cyclohexane	Benzene, hexahydro-/	(CAS-No.) 110-82-7	< 2	Flam. Liq. 2, H225
	CYCLOHEXANE / Hexahydrobenzene			Skin Irrit. 2, H315
	Trexamy arobenzene			STOT SE 3, H336
				Asp. Tox. 1, H304
				Aquatic Acute 1, H400
				Aquatic Chronic 3, H412
Methylcyclopentane	Cyclopentane, methyl-	(CAS-No.) 96-37-7	< 2	Flam. Liq. 2, H225
				Skin Irrit. 2, H315
				Eye Irrit. 2A, H319
				STOT SE 3, H336
				Asp. Tox. 1, H304
				Aquatic Chronic 2, H411
3-Methylpentane	Pentane, 3-methyl- / 1,2,3-	(CAS-No.) 96-14-0	< 1.5	Flam. Liq. 2, H225
o meany/pentane	Trimethylpropane /	(5/15/110.) 50-14-0	` 1.5	Skin Irrit. 2, H315
	Methylpentane, 3- /			STOT SE 3, H336
	Diethylmethylmethane / 3-			•
	Methyl pentane			Asp. Tox. 1, H304
2.84-46-46	Hoyana 2 mathyl /	/CAC N = \ 500 04 1	. 4 5	Aquatic Chronic 2, H411
3-Methylhexane	Hexane, 3-methyl- / Methylhexane, 3- / 3-	(CAS-No.) 589-34-4	< 1.5	Flam. Liq. 2, H225
	methylhexane			Skin Irrit. 2, H315
	, -			STOT SE 3, H336
				Asp. Tox. 1, H304
				Aquatic Acute 1, H400
				Aquatic Chronic 1, H410

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Isoheptane	Isoheptane, mixed isomers / 2-Methylhexane	(CAS-No.) 31394-54-4	< 1.5	Flam. Liq. 1, H224 STOT SE 3, H336 Asp. Tox. 1, H304
				Aquatic Chronic 2, H411
Benzene	Cyclohexatriene / Benzol	(CAS-No.) 71-43-2	< 1	Flam. Lig. 2, H225
Delizerie		(CAS NO.) 71 43 2	` -	Acute Tox. 4 (Oral), H302
				Skin Irrit. 2, H315
				Eye Irrit. 2A, H319
				Muta. 1B, H340
				Carc. 1A, H350
				STOT SE 3, H336
				STOT SE 3, H335
				STOT RE 1, H372
				Asp. Tox. 1, H304
				Aquatic Acute 2, H401
				Aquatic Chronic 3, H412
Cyclopentane	-	(CAS-No.) 287-92-3	< 1	Flam. Liq. 2, H225
Cycloperitaile		(6/15/110.) 25/ 32 3	'-	STOT SE 3, H336
				Asp. Tox. 1, H304
				Aquatic Acute 3, H402
				Aquatic Chronic 3, H412
Methanethiol	Methyl mercaptan /	(CAS-No.) 74-93-1	< 1	Flam. Gas 1, H220
	Thiomethanol / methyl	(6/16/101)	-	Press. Gas (Liq.), H280
	mercaptan			Acute Tox. 3 (Inhalation:gas),
				H331
				Aquatic Acute 1, H400
				Aquatic Chronic 1, H410
Neohexane	Butane, 2,2-dimethyl- / 2,2-	(CAS-No.) 75-83-2	< 0.5	Flam. Lig. 2, H225
	Dimethylbutane			Skin Irrit. 2, H315
				STOT SE 3, H336
				Asp. Tox. 1, H304
				Aquatic Chronic 2, H411
2-Propanethiol	Isopropyl mercaptan /	(CAS-No.) 75-33-2	< 0.5	Flam. Lig. 2, H225
•	Isopropanethiol / Propane-2-	, ,		Acute Tox. 4 (Oral), H302
	thiol / isopropyl mercaptan			Acute Tox. 3 (Inhalation), H331
				Acute Tox. 4
				(Inhalation:dust,mist), H332
				Eye Irrit. 2, H319
				Skin Sens. 1B, H317
				Aquatic Acute 1, H400
				Aquatic Chronic 1, H410

Full text of H-statements: see section 16

### **SECTION 4: FIRST AID MEASURES**

#### 4.1. Description of First-aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Immediately remove contaminated clothing. Immediately drench affected area with soap and water for at least 15 minutes. For brief contact with a small amount: Rewarm with body heat. Get immediate medical advice/attention. For extensive

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<sup>\*</sup>Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

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contact or a large amount: Immediately call a poison center/doctor and follow their advice. Specific treatment is urgent, incorrect first-aid practices will aggravate the injury. Protect affected area with a loose cover until proper medical treatment is received.

**Eye Contact:** Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists. Rinse cautiously with water for at least 15 minutes.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention. If vomiting occurs have person lean forward. If vomiting occurs, keep head below waistline.

#### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** May cause frostbite on contact with the liquid. May cause drowsiness and dizziness. May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Causes skin irritation. May cause genetic defects. Asphyxia by lack of oxygen: risk of death.

**Inhalation:** In elevated concentrations may cause asphyxiation, central nervous system effects, and increased breathing rate. Symptoms of asphyxiation include headache, dizziness, rapid breathing, increased pulse, mood changes, tremors, cyanosis, muscular weakness, narcosis, numbness of the extremities, unconsciousness and death.

**Skin Contact:** Contact with gas/liquid escaping the container can cause frostbite and freeze burns. Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Eye Contact: Contact with gas/liquid escaping the container can cause frostbite, freeze burns, and permanent eye damage.

**Ingestion:** Not considered a potential route of exposure, but contact with gas/liquid escaping the container can cause freeze burns and frostbite.

**Chronic Symptoms:** May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. May cause genetic defects.

#### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

# **SECTION 5: FIRE-FIGHTING MEASURES**

#### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Do not extinguish burning gas if flow cannot be shut off immediately. Extinguish secondary FIRES with appropriate materials.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

#### 5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Extremely flammable gas.

**Explosion Hazard:** Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors. May form flammable/explosive vapor-air mixture. Container may explode in heat of fire.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

#### 5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. Fight fire remotely due to the risk of explosion.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon Oxides, Hydrocarbon Vapors, Smoke.

Other Information: Use water spray to disperse vapors. Do not allow run-off from fire fighting to enter drains or water courses.

#### 5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Eliminate every possible source of ignition. Isolate from fire, if possible, without unnecessary risk. Do not get in eyes, on skin, or on clothing. Do not breathe gas.

#### 6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### **6.1.2.** For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Eliminate ignition sources. Evacuate unnecessary personnel, isolate, and ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

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#### **6.2.** Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

#### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Remove ignition sources. Stop leak, if possible without risk. As an immediate precautionary measure, isolate spill or leak area in all directions.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Stop the source of the release, if safe to do so. Consider the use of water spray to disperse vapors. Isolate the area until gas has dispersed. Ventilate and gas test area before entering. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

#### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

#### **SECTION 7: HANDLING AND STORAGE**

#### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** Handle empty containers with care because residual vapors are flammable. Ruptured cylinders may rocket. Do not pressurize, cut, or weld containers. Asphyxiating gas at high concentrations.

**Precautions for Safe Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not breathe gas. Do not get in eyes, on skin, or on clothing.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

#### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed. **Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Keep in fireproof place. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling. Store locked up/in a secure area.

**Incompatible Materials:** Strong acids, strong bases, strong oxidizers.

#### 7.3. Specific End Use(s)

Feedstock for fractionation / distillation

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

Propane (74-98-6)		
USA ACGIH	ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen
		Content
USA OSHA	OSHA PEL (TWA) [1]	1800 mg/m³
USA OSHA	OSHA PEL (TWA) [2]	1000 ppm
USA NIOSH	NIOSH REL (TWA)	1800 mg/m³
USA NIOSH	NIOSH REL TWA [ppm]	1000 ppm
USA IDLH	IDLH [ppm]	2100 ppm (10% LEL)
Alberta	OEL TWA [ppm]	1000 ppm
Nunavut	OEL STEL [ppm]	1250 ppm
Nunavut	OEL TWA [ppm]	1000 ppm
Northwest Territories	OEL STEL [ppm]	1250 ppm
Northwest Territories	OEL TWA [ppm]	1000 ppm
Québec	VEMP (OEL TWA)	1800 mg/m³
Québec	VEMP (OEL TWA) [ppm]	1000 ppm
Saskatchewan	OEL STEL [ppm]	1250 ppm
Saskatchewan	OEL TWA [ppm]	1000 ppm
n-Heptane (142-82-5)		
USA ACGIH	ACGIH OEL TWA [ppm]	400 ppm (Heptane, all isomers)
USA ACGIH	ACGIH OEL STEL [ppm]	500 ppm (Heptane, all isomers)

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USA OSHA	OSHA PEL (TWA) [1]	2000 mg/m³
USA OSHA	OSHA PEL (TWA) [1]	500 ppm
USA NIOSH	NIOSH REL (TWA)	350 mg/m³
USA NIOSH	NIOSH REL TWA [ppm]	85 ppm
USA NIOSH	NIOSH REL TWA [ppiii]	1800 mg/m <sup>3</sup>
	,	
USA NIOSH	NIOSH REL C [ppm]	440 ppm
USA IDLH	IDLH [ppm] OEL STEL	750 ppm
Alberta		2050 mg/m³
Alberta	OEL STEL [ppm]	500 ppm
Alberta	OEL TWA	1640 mg/m³
Alberta	OEL TWA [ppm]	400 ppm
British Columbia	OEL STEL [ppm]	500 ppm (Heptane, isomers)
British Columbia	OEL TWA [ppm]	400 ppm (Heptane, isomers)
Manitoba	OEL STEL [ppm]	500 ppm (Heptane, all isomers)
Manitoba	OEL TWA [ppm]	400 ppm (Heptane, all isomers)
New Brunswick	OEL STEL	2050 mg/m³
New Brunswick	OEL STEL [ppm]	500 ppm
New Brunswick	OEL TWA	1640 mg/m³
New Brunswick	OEL TWA [ppm]	400 ppm
Newfoundland & Labrador	OEL STEL [ppm]	500 ppm (Heptane, all isomers)
Newfoundland & Labrador	OEL TWA [ppm]	400 ppm (Heptane, all isomers)
Nova Scotia	OEL STEL [ppm]	500 ppm (Heptane, all isomers)
Nova Scotia	OEL TWA [ppm]	400 ppm (Heptane, all isomers)
Nunavut	OEL STEL [ppm]	500 ppm
Nunavut	OEL TWA [ppm]	400 ppm
Northwest Territories	OEL STEL [ppm]	500 ppm
Northwest Territories	OEL TWA [ppm]	400 ppm
Ontario	OEL STEL [ppm]	500 ppm (Heptane, all isomers)
Ontario	OEL TWA [ppm]	400 ppm
Prince Edward Island	OEL STEL [ppm]	500 ppm (Heptane, all isomers)
Prince Edward Island	OEL TWA [ppm]	400 ppm (Heptane, all isomers)
Québec	VECD (OEL STEL) [ppm]	500 ppm (Heptane (all isomers))
Québec	VEMP (OEL TWA) [ppm]	400 ppm (Heptane (all isomers))
Saskatchewan	OEL STEL [ppm]	500 ppm
Saskatchewan	OEL TWA [ppm]	400 ppm
Yukon	OEL STEL	2000 mg/m <sup>3</sup>
Yukon	OEL STEL [ppm]	500 ppm
Yukon	OEL TWA	1600 mg/m³
Yukon	OEL TWA [ppm]	400 ppm
n-Butane (106-97-8)		
USA ACGIH	ACGIH OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
USA NIOSH	NIOSH REL (TWA)	1900 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL TWA [ppm]	800 ppm
USA IDLH	IDLH [ppm]	1600 ppm (>10% LEL)
Alberta	OEL TWA [ppm]	1000 ppm
British Columbia	OEL STEL [ppm]	1000 ppm (Butane, all isomers)
Manitoba	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
New Brunswick	OEL TWA	1900 mg/m³
New Brunswick	OEL TWA [ppm]	800 ppm
Newfoundland & Labrador	OEL TWA [ppm]	1000 ppm (explosion hazard (Butane, isomers)
Nova Scotia	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
IVOVA JCULIA	OLL 31LL [ppiii]	בטטט איווו (באאוטטוטוו וומצמוע (מענמווב, וטטווופוט)

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Nunavut	OEL STEL [ppm]	1250 ppm (Butane, all isomers)		
Nunavut	OEL TWA [ppm]	1000 ppm (Butane, all isomers)		
Northwest Territories	OEL STEL [ppm]	1250 ppm (Butane, all isomers)		
Northwest Territories	OEL TWA [ppm]	1000 ppm (Butane, all isomers)		
Ontario	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, all isomers)		
Prince Edward Island	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)		
Québec	VEMP (OEL TWA)	1900 mg/m³		
Québec	VEMP (OEL TWA) [ppm]	800 ppm		
Saskatchewan	OEL STEL [ppm]	1250 ppm (Butane, all isomers)		
Saskatchewan	OEL TWA [ppm]	1000 ppm (Butane, all isomers)		
Yukon	OEL STEL	1600 mg/m³		
Yukon	OEL STEL [ppm]	750 ppm		
Yukon	OEL TWA	1400 mg/m³		
Yukon	OEL TWA [ppm]	600 ppm		
Isopentane (78-78-4)				
USA ACGIH	ACGIH OEL TWA [ppm]	1000 ppm (Pentane, all isomers)		
Alberta	OEL TWA	1770 mg/m³ (Pentane, all isomers)		
Alberta	OEL TWA [ppm]	600 ppm (Pentane, all isomers)		
British Columbia	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)		
Manitoba	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)		
Newfoundland & Labrador	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)		
Nova Scotia	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)		
Nunavut	OEL STEL [ppm]	750 ppm (Pentane, all isomers)		
Nunavut	OEL TWA [ppm]	600 ppm (Pentane, all isomers)		
Northwest Territories	OEL STEL [ppm]	750 ppm (Pentane, all isomers)		
Northwest Territories	OEL TWA [ppm]	600 ppm (Pentane, all isomers)		
Ontario	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)		
Prince Edward Island	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)		
Québec	VEMP (OEL TWA) [ppm]	1000 ppm (Pentane (all isomers))		
Saskatchewan	OEL STEL [ppm]	750 ppm (Pentane, all isomers)		
Saskatchewan	OEL TWA [ppm]	600 ppm (Pentane, all isomers)		
	OEL TWA [ppili]	600 ppin (Pentane, an isomers)		
Isobutane (75-28-5)	ACCILI OFI CTEL formal	1000		
USA ACGIH	ACGIH OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)		
USA NIOSH	NIOSH REL (TWA)	1900 mg/m³		
USA NIOSH	NIOSH REL TWA [ppm]	800 ppm		
British Columbia	OEL STEL [ppm]	1000 ppm (Butane, all isomers)		
Manitoba	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)		
Newfoundland & Labrador	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)		
Nova Scotia	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)		
Nunavut	OEL STEL [ppm]	1250 ppm (Butane, all isomers)		
Nunavut	OEL TWA [ppm]	1000 ppm (Butane, all isomers)		
Northwest Territories	OEL STEL [ppm]	1250 ppm (Butane, all isomers)		
Northwest Territories	OEL TWA [ppm]	1000 ppm (Butane, all isomers)		
Ontario	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, all isomers)		
Prince Edward Island	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)		
Saskatchewan	OEL STEL [ppm]	1250 ppm (Butane, all isomers)		
Saskatchewan	OEL TWA [ppm]	1000 ppm (Butane, all isomers)		
Ethane (74-84-0)	Ethane (74-84-0)			
USA ACGIH	ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen		
		Content		
Alberta	OEL TWA [ppm]	1000 ppm		

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	T	
Nunavut	OEL STEL [ppm]	1250 ppm
Nunavut	OEL TWA [ppm]	1000 ppm
Northwest Territories	OEL STEL [ppm]	1250 ppm
Northwest Territories	OEL TWA [ppm]	1000 ppm
Saskatchewan	OEL STEL [ppm]	1250 ppm
Saskatchewan	OEL TWA [ppm]	1000 ppm
n-Pentane (109-66-0)		
USA ACGIH	ACGIH OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
USA OSHA	OSHA PEL (TWA) [1]	2950 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) [2]	1000 ppm
USA NIOSH	NIOSH REL (TWA)	350 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL TWA [ppm]	120 ppm
USA NIOSH	NIOSH REL (Ceiling)	1800 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL C [ppm]	610 ppm
USA IDLH	IDLH [ppm]	1500 ppm (10% LEL)
Alberta	OEL TWA	1770 mg/m³
Alberta	OEL TWA [ppm]	600 ppm
British Columbia	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Manitoba	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
New Brunswick	OEL STEL	2210 mg/m <sup>3</sup>
New Brunswick	OEL STEL [ppm]	750 ppm
New Brunswick	OEL TWA	1770 mg/m <sup>3</sup>
New Brunswick	OEL TWA [ppm]	600 ppm
Newfoundland & Labrador	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Nova Scotia	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Nunavut	OEL STEL [ppm]	750 ppm (Pentane, all isomers)
Nunavut	OEL TWA [ppm]	600 ppm (Pentane, all isomers)
Northwest Territories	OEL STEL [ppm]	750 ppm (Pentane, all isomers)
Northwest Territories	OEL TWA [ppm]	600 ppm (Pentane, all isomers)
Ontario	OEL TWA [ppm]	1000 ppm
Prince Edward Island	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Québec	VEMP (OEL TWA) [ppm]	1000 ppm (Pentane (all isomers))
Saskatchewan	OEL STEL [ppm]	750 ppm
Saskatchewan	OEL TWA [ppm]	600 ppm
Yukon	OEL STEL	2250 mg/m³
Yukon	OEL STEL [ppm]	750 ppm
Yukon	OEL TWA	1800 mg/m³
Yukon	OEL TWA [ppm]	600 ppm
n-hexane (110-54-3)		1 000 PP.··
USA ACGIH	ACGIH OEL TWA [ppm]	50 ppm
USA ACGIH	ACGIT OLE TWA [ppin]  ACGIH chemical category	Skin - potential significant contribution to overall exposure
OSA ACGITI	Acon chemical category	by the cutaneous route
USA ACGIH	BEI (BLV)	0.5 mg/l Parameter: 2,5-Hexanedione without hydrolysis -
OSA ACGITI	BEI (BEV)	Medium: urine - Sampling time: end of shift
USA OSHA	OSHA PEL (TWA) [1]	1800 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) [2]	500 ppm
USA NIOSH	NIOSH REL (TWA)	180 mg/m³
USA NIOSH	NIOSH REL TWA [ppm]	50 ppm
USA IDLH	IDLH [ppm]	1100 ppm (10% LEL)
Alberta	OEL TWA	176 mg/m³
Alberta	OEL TWA  OEL TWA [ppm]	50 ppm
AIDEI LA	OEL I VVA [PPIII]	ου ppili

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	OF TAXA Council	
British Columbia	OEL TWA [ppm]	20 ppm
Manitoba	OEL TWA [ppm]	50 ppm
New Brunswick	OEL TWA	176 mg/m³
New Brunswick	OEL TWA [ppm]	50 ppm
Newfoundland & Labrador	OEL TWA [ppm]	50 ppm
Nova Scotia	OEL TWA [ppm]	50 ppm
Nunavut	OEL STEL [ppm]	62.5 ppm
Nunavut	OEL TWA [ppm]	50 ppm
Northwest Territories	OEL STEL [ppm]	62.5 ppm
Northwest Territories	OEL TWA [ppm]	50 ppm
Ontario	OEL TWA [ppm]	50 ppm
Prince Edward Island	OEL TWA [ppm]	50 ppm
Québec	VEMP (OEL TWA)	176 mg/m³
Québec	VEMP (OEL TWA) [ppm]	50 ppm
Saskatchewan	OEL STEL [ppm]	62.5 ppm
Saskatchewan	OEL TWA [ppm]	50 ppm
Yukon	OEL STEL	450 mg/m³
Yukon	OEL STEL [ppm]	125 ppm
Yukon	OEL TWA	360 mg/m³
Yukon	OEL TWA [ppm]	100 ppm
2-Methylpentane (107-83-5)		
USA ACGIH	ACGIH OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
USA ACGIH	ACGIH OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Alberta	OEL STEL	3500 mg/m³ (Hexane (all isomers except n-Hexane))
Alberta	OEL STEL [ppm]	1000 ppm (Hexane (all isomers except n-Hexane))
Alberta	OEL TWA	1760 mg/m³ (Hexane (all isomers except n-Hexane))
Alberta	OEL TWA [ppm]	500 ppm (Hexane (all isomers except n-Hexane))
British Columbia	OEL TWA [ppm]	200 ppm (Hexane, all isomers except n-Hexane)
Manitoba	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Manitoba	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
Newfoundland & Labrador	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Newfoundland & Labrador	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
Nova Scotia	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Nova Scotia	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
Ontario	OEL STEL [ppm]	1000 ppm (Hexane, isomers, other than n-Hexane)
Ontario	OEL TWA [ppm]	500 ppm (Hexane, isomers, other than n-Hexane)
Prince Edward Island	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Prince Edward Island	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
3-Methylpentane (96-14-0)		· · · · · · · · · · · · · · · · · · ·
USA ACGIH	ACGIH OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
USA ACGIH	ACGIH OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Alberta	OEL STEL	3500 mg/m <sup>3</sup>
Alberta	OEL STEL [ppm]	1000 ppm
Alberta	OEL TWA	1760 mg/m³ (Hexane (all isomers except n-Hexane))
Alberta	OEL TWA [ppm]	500 ppm (Hexane (all isomers except n-Hexane))
British Columbia	OEL TWA [ppm]	200 ppm (Hexane, all isomers except n-Hexane)
Manitoba	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Manitoba	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
Newfoundland & Labrador	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Newfoundland & Labrador	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
Nova Scotia	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
. TOVA SCOLIA	Occount [bbin]	Tooo ppin (nexune isomers other than in-hexalie)

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	OSL TAKE 1	
Nova Scotia	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
Ontario	OEL STEL [ppm]	1000 ppm (Hexane, isomers, other than n-Hexane)
Ontario	OEL TWA [ppm]	500 ppm (Hexane, isomers, other than n-Hexane)
Prince Edward Island	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Prince Edward Island	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
Neohexane (75-83-2)		
USA ACGIH	ACGIH OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
USA ACGIH	ACGIH OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Alberta	OEL STEL	3500 mg/m³ (Hexane (all isomers except n-Hexane))
Alberta	OEL STEL [ppm]	1000 ppm (Hexane (all isomers except n-Hexane))
Alberta	OEL TWA	1760 mg/m³ (Hexane (all isomers except n-Hexane))
Alberta	OEL TWA [ppm]	500 ppm (Hexane (all isomers except n-Hexane))
British Columbia	OEL TWA [ppm]	200 ppm (Hexane, all isomers except n-Hexane)
Manitoba	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Manitoba	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
Newfoundland & Labrador	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Newfoundland & Labrador	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
Nova Scotia	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Nova Scotia	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
Ontario	OEL STEL [ppm]	1000 ppm (Hexane, isomers, other than n-Hexane)
Ontario	OEL TWA [ppm]	500 ppm (Hexane, isomers, other than n-Hexane)
Prince Edward Island	OEL STEL [ppm]	1000 ppm (Hexane isomers other than n-hexane)
Prince Edward Island	OEL TWA [ppm]	500 ppm (Hexane isomers other than n-hexane)
Benzene (71-43-2)		
USA ACGIH	ACGIH OEL TWA [ppm]	0.5 ppm
USA ACGIH	ACGIH OEL STEL [ppm]	2.5 ppm
USA ACGIH	ACGIH chemical category	Confirmed Human Carcinogen, Skin - potential significant
	, , , , , , , , , , , , , , , , , , ,	contribution to overall exposure by the cutaneous route
USA ACGIH	BEI (BLV)	25 μg/g Kreatinin Parameter: S-Phenylmercapturic acid -
	, ,	Medium: urine - Sampling time: end of shift (background)
		500 μg/g Kreatinin Parameter: t,t-Muconic acid - Medium:
		urine - Sampling time: end of shift (background)
USA OSHA	OSHA PEL (TWA) [2]	10 ppm
		1 ppm
USA OSHA	OSHA PEL (STEL) [2]	5 ppm (see 29 CFR 1910.1028)
USA OSHA	OSHA PEL C [ppm]	25 ppm
USA OSHA	Acceptable Maximum Peak Above The	50 ppm Peak (10 minutes)
	Acceptable Ceiling Concentration For An	
	8-Hr Shift	
USA OSHA	OSHA Action Level/Excursion Limit	0.5 ppm (Action Level, see 29 CFR 1910.1028)
USA NIOSH	NIOSH REL TWA [ppm]	0.1 ppm
USA NIOSH	NIOSH REL STEL [ppm]	1 ppm
USA IDLH	IDLH [ppm]	500 ppm
Alberta	OEL STEL	8 mg/m <sup>3</sup>
Alberta	OEL STEL [ppm]	2.5 ppm
Alberta	OEL TWA	1.6 mg/m <sup>3</sup>
Alberta	OEL TWA [ppm]	0.5 ppm
British Columbia	OEL STEL [ppm]	2.5 ppm
British Columbia	OEL TWA [ppm]	0.5 ppm
Manitoba	OEL STEL [ppm]	2.5 ppm
Manitoba	OEL TWA [ppm]	0.5 ppm
New Brunswick	OEL STEL	8 mg/m³

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Name Barress dela	OFI CTEL (man)	25
New Brunswick	OEL STEL [ppm]	2.5 ppm
New Brunswick	OEL TWA	1.6 mg/m³
New Brunswick	OEL TWA [ppm]	0.5 ppm
Newfoundland & Labrador	OEL STEL [ppm]	2.5 ppm
Newfoundland & Labrador	OEL TWA [ppm]	0.5 ppm
Nova Scotia	OEL STEL [ppm]	2.5 ppm
Nova Scotia	OEL TWA [ppm]	0.5 ppm
Ontario	OEL STEL [ppm]	2.5 ppm (designated substances regulation)
		2.5 ppm (applies to workplaces to which the designated
	051 7344 5	substances regulation does not apply)
Ontario	OEL TWA [ppm]	0.5 ppm (applies to workplaces to which the designated
		substances regulation does not apply)
Driver Edward Island	OF CTF [comp]	0.5 ppm (designated substances regulation)
Prince Edward Island	OEL STEL [ppm]	2.5 ppm
Prince Edward Island	OEL TWA [ppm]	0.5 ppm
Québec	VECD (OEL STEL)	15.5 mg/m³
Québec	VECD (OEL STEL) [ppm]	5 ppm
Québec	VEMP (OEL TWA)	3 mg/m <sup>3</sup>
Québec	VEMP (OEL TWA) [ppm]	1 ppm
Yukon	OEL C	32 mg/m³
Yukon	OEL Ceiling [ppm]	10 ppm
Nonanes		
Alberta	OEL TWA	1050 mg/m <sup>3</sup>
Alberta	OEL TWA [ppm]	200 ppm
Nunavut	OEL STEL [ppm]	250 ppm
Nunavut	OEL TWA [ppm]	200 ppm
Northwest Territories	OEL STEL [ppm]	250 ppm
Northwest Territories	OEL TWA [ppm]	200 ppm
Saskatchewan	OEL STEL [ppm]	250 ppm
Saskatchewan	OEL TWA [ppm]	200 ppm
Aliphatic hydrocarbon gases	: Alkanes (C1-4)	
Nunavut	OEL STEL [ppm]	1250 ppm
Nunavut	OEL TWA [ppm]	1000 ppm
Northwest Territories	OEL STEL [ppm]	1250 ppm
Northwest Territories	OEL TWA [ppm]	1000 ppm
Saskatchewan	OEL STEL [ppm]	1250 ppm
Saskatchewan	OEL TWA [ppm]	1000 ppm
Aliphatic hydrocarbon gases	5. 1 5	rr
Alberta	OEL TWA [ppm]	1000 ppm
Heptane isomers	[kk]	kk
USA ACGIH	ACGIH OEL TWA [ppm]	400 ppm
USA ACGIH	ACGIH OEL TWA [ppiii] ACGIH OEL STEL [ppm]	500 ppm
Manitoba	OEL STEL [ppm]	500 ppm
Manitoba	OEL TWA [ppm]	400 ppm
Newfoundland & Labrador	OEL TWA [ppm]	500 ppm
Newfoundland & Labrador	OEL TWA [ppm]	400 ppm
Nova Scotia	OEL TWA [ppm]	500 ppm
Nova Scotia	OEL STEL [ppm] OEL TWA [ppm]	400 ppm
Prince Edward Island	OEL TWA [ppm] OEL STEL [ppm]	500 ppm
Prince Edward Island Prince Edward Island	OEL STEL [ppm] OEL TWA [ppm]	
	OLL IWA [PPIII]	400 ppm
Octanes		

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		Cording To The Hazardous Products Regulation (February 11, 2015).
USA ACGIH	ACGIH OEL TWA [ppm]	300 ppm
Alberta	OEL TWA	1400 mg/m³
Alberta	OEL TWA [ppm]	300 ppm
British Columbia	OEL TWA [ppm]	300 ppm
Manitoba	OEL TWA [ppm]	300 ppm
Newfoundland & Labrador	OEL TWA [ppm]	300 ppm
Nova Scotia	OEL TWA [ppm]	300 ppm
Nunavut	OEL STEL [ppm]	375 ppm
Nunavut	OEL TWA [ppm]	300 ppm
Northwest Territories	OEL STEL [ppm]	375 ppm
Northwest Territories	OEL TWA [ppm]	300 ppm
Prince Edward Island	OEL TWA [ppm]	300 ppm
Saskatchewan	OEL STEL [ppm]	375 ppm
Saskatchewan	OEL TWA [ppm]	300 ppm
Methylcyclohexane (108-87	-2)	
USA ACGIH	ACGIH OEL TWA [ppm]	400 ppm
USA OSHA	OSHA PEL (TWA) [1]	2000 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) [2]	500 ppm
USA NIOSH	NIOSH REL (TWA)	1600 mg/m³
USA NIOSH	NIOSH REL TWA [ppm]	400 ppm
USA IDLH	IDLH [ppm]	1200 ppm (10% LEL)
Alberta	OEL TWA	1610 mg/m³
Alberta	OEL TWA [ppm]	400 ppm
British Columbia	OEL TWA [ppm]	400 ppm
Manitoba	OEL TWA [ppm]	400 ppm
New Brunswick	OEL TWA	1610 mg/m <sup>3</sup>
New Brunswick	OEL TWA [ppm]	400 ppm
Newfoundland & Labrador	OEL TWA [ppm]	400 ppm
Nova Scotia	OEL TWA [ppm]	400 ppm
Nunavut	OEL STEL [ppm]	500 ppm
Nunavut	OEL TWA [ppm]	400 ppm
Northwest Territories	OEL STEL [ppm]	500 ppm
Northwest Territories	OEL TWA [ppm]	400 ppm
Ontario	OEL TWA [ppm]	400 ppm
Prince Edward Island	OEL TWA [ppm]	400 ppm
Québec	VEMP (OEL TWA)	1610 mg/m³
Québec	VEMP (OEL TWA) [ppm]	400 ppm
Saskatchewan	OEL STEL [ppm]	500 ppm
Saskatchewan	OEL TWA [ppm]	400 ppm
Yukon	OEL STEL	2000 mg/m³
Yukon	OEL STEL [ppm]	500 ppm
Yukon	OEL TWA	1600 mg/m <sup>3</sup>
Yukon	OEL TWA [ppm]	400 ppm
Cyclohexane (110-82-7)	[kk]	1 .22 kk
USA ACGIH	ACGIH OEL TWA [ppm]	100 ppm
USA OSHA	OSHA PEL (TWA) [1]	1050 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) [1] OSHA PEL (TWA) [2]	300 ppm
USA NIOSH		1050 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA)  NIOSH REL TWA [ppm]	300 ppm
		··
USA IDLH	IDLH [ppm]	1300 ppm (10% LEL)
Alberta	OEL TWA	344 mg/m <sup>3</sup>

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	· · · · · · · · · · · · · · · · · · ·	Language To The Hazardous Products Regulation (February 11, 2015).	
Alberta	OEL TWA [ppm]	100 ppm	
British Columbia	OEL TWA [ppm]	100 ppm	
Manitoba	OEL TWA [ppm]	100 ppm	
New Brunswick	OEL TWA	1030 mg/m³	
New Brunswick	OEL TWA [ppm]	300 ppm	
Newfoundland & Labrador	OEL TWA [ppm]	100 ppm	
Nova Scotia	OEL TWA [ppm]	100 ppm	
Nunavut	OEL STEL [ppm]	150 ppm	
Nunavut	OEL TWA [ppm]	100 ppm	
Northwest Territories	OEL STEL [ppm]	150 ppm	
Northwest Territories	OEL TWA [ppm]	100 ppm	
Ontario	OEL TWA [ppm]	100 ppm	
Prince Edward Island	OEL TWA [ppm]	100 ppm	
Québec	VEMP (OEL TWA)	1030 mg/m <sup>3</sup>	
Québec	VEMP (OEL TWA) [ppm]	300 ppm	
Saskatchewan	OEL STEL [ppm]	150 ppm	
Saskatchewan	OEL TWA [ppm]	100 ppm	
Yukon	OEL STEL	1300 mg/m³	
Yukon	OEL STEL [ppm]	375 ppm	
Yukon	OEL TWA	1050 mg/m <sup>3</sup>	
Yukon	OEL TWA [ppm]	300 ppm	
3-Methylhexane (589-34-4)		,	
USA ACGIH	ACGIH OEL TWA [ppm]	400 ppm (Heptane, all isomers)	
USA ACGIH	ACGIH OEL STEL [ppm]	500 ppm (Heptane, all isomers)	
Alberta	OEL STEL	2050 mg/m³ (Heptane, all isomers)	
Alberta	OEL STEL [ppm]	500 ppm (Heptane, all isomers)	
Alberta	OEL TWA	1640 mg/m³ (Heptane, all isomers)	
Alberta	OEL TWA [ppm]	400 ppm (Heptane, all isomers)	
British Columbia	OEL STEL [ppm]	500 ppm (Heptane, isomers)	
British Columbia	OEL TWA [ppm]	400 ppm (Heptane, isomers)	
Manitoba	OEL STEL [ppm]	500 ppm (Heptane, all isomers)	
Manitoba	OEL TWA [ppm]	400 ppm (Heptane, all isomers)	
Newfoundland & Labrador	OEL STEL [ppm]	500 ppm (Heptane, all isomers)	
Newfoundland & Labrador	OEL TWA [ppm]	400 ppm (Heptane, all isomers)	
Nova Scotia	OEL STEL [ppm]	500 ppm (Heptane, all isomers)	
Nova Scotia	OEL TWA [ppm]	400 ppm (Heptane, all isomers)	
Ontario	OEL STEL [ppm]	500 ppm (Heptane, all isomers)	
Ontario	OEL TWA [ppm]	400 ppm (Heptane, all isomers)	
Prince Edward Island	OEL STEL [ppm]	500 ppm (Heptane, all isomers)	
Prince Edward Island	OEL TWA [ppm]	400 ppm (Heptane, all isomers)	
Québec	VECD (OEL STEL) [ppm]	500 ppm (Heptane (all isomers))	
Québec	VEMP (OEL TWA) [ppm]	400 ppm (Heptane (all isomers))	
Cyclopentane (287-92-3)	1		
USA ACGIH	ACGIH OEL TWA [ppm]	600 ppm	
USA NIOSH	NIOSH REL (TWA)	1720 mg/m³	
USA NIOSH	NIOSH REL TWA [ppm]	600 ppm	
Alberta	OEL TWA	1720 mg/m³	
Alberta	OEL TWA [ppm]	600 ppm	
British Columbia	OEL TWA [ppm]	600 ppm	
Manitoba	OEL TWA [ppm]	600 ppm	
New Brunswick	OEL TWA [ppiii]	1720 mg/m³	
INCM DI UIISWICK	OLLIWA	1/20 mg/m	

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New Brunswick	OEL TWA [ppm]	600 ppm
Newfoundland & Labrador	OEL TWA [ppm]	600 ppm
Nova Scotia	OEL TWA [ppm]	600 ppm
Nunavut	OEL STEL [ppm]	900 ppm
Nunavut	OEL TWA [ppm]	600 ppm
Northwest Territories	OEL STEL [ppm]	900 ppm
Northwest Territories	OEL TWA [ppm]	600 ppm
Ontario	OEL TWA [ppm]	600 ppm
Prince Edward Island	OEL TWA [ppm]	600 ppm
Québec	VEMP (OEL TWA)	1720 mg/m³
Québec	VEMP (OEL TWA) [ppm]	600 ppm
Saskatchewan	OEL STEL [ppm]	900 ppm
Saskatchewan	OEL TWA [ppm]	600 ppm
Methanethiol (74-93-1)		
USA ACGIH	ACGIH OEL TWA [ppm]	0.5 ppm
USA OSHA	OSHA PEL (Ceiling)	20 mg/m <sup>3</sup>
USA OSHA	OSHA PEL C [ppm]	10 ppm
USA NIOSH	NIOSH REL (Ceiling)	1 mg/m³
USA NIOSH	NIOSH REL C [ppm]	0.5 ppm
USA IDLH	IDLH [ppm]	150 ppm
Alberta	OEL TWA	1 mg/m³
Alberta	OEL TWA [ppm]	0.5 ppm
British Columbia	OEL TWA [ppm]	0.5 ppm
Manitoba	OEL TWA [ppm]	0.5 ppm
New Brunswick	OEL TWA	0.98 mg/m³
New Brunswick	OEL TWA [ppm]	0.5 ppm
Newfoundland & Labrador	OEL TWA [ppm]	0.5 ppm
Nova Scotia	OEL TWA [ppm]	0.5 ppm
Nunavut	OEL STEL [ppm]	1.5 ppm
Nunavut	OEL TWA [ppm]	0.5 ppm
Northwest Territories	OEL STEL [ppm]	1.5 ppm
Northwest Territories	OEL TWA [ppm]	0.5 ppm
Ontario	OEL TWA [ppm]	0.5 ppm
Prince Edward Island	OEL TWA [ppm]	0.5 ppm
Québec	VEMP (OEL TWA)	0.98 mg/m³
Québec	VEMP (OEL TWA) [ppm]	0.5 ppm
Saskatchewan	OEL STEL [ppm]	1.5 ppm
Saskatchewan	OEL TWA [ppm]	0.5 ppm
Yukon	OEL C	5.9 mg/m³
Yukon	OEL Ceiling [ppm]	3 ppm

#### 8.2. Exposure Controls

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Use explosion-proof equipment. Proper grounding procedures to avoid static electricity should be followed. Gas detectors should be used when flammable gases or vapors may be released. Oxygen detectors should be used when asphixiating gases may be released.

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**Personal Protective Equipment:** Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Respiratory protection of the dependent type.









Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

Hand Protection: Wear protective gloves. If material is cold, wear thermally resistant protective gloves.

Eye and Face Protection: Faceshield as determined by task. Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved self-contained breathing apparatus whenever exposure may exceed established

Occupational Exposure Limits.

Thermal Hazard Protection: Wear thermally resistant protective clothing.

Other Information: When using, do not eat, drink or smoke.

### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

#### 9.1. Information on Basic Physical and Chemical Properties

Physical State : Gas
Appearance : Colorless

Odor : Normally odorless. Pungent odor observed is mercaptans are present.

**Odor Threshold** No data available рΗ No data available **Evaporation Rate** No data available **Melting Point** No data available **Freezing Point** No data available **Boiling Point** -153.9 °C (-245.02 °F) **Flash Point** -51.5 °C (-60.7 °F) **Auto-ignition Temperature** 215.6 °C (420.08 °F) **Decomposition Temperature** No data available

Flammability (solid, gas) : Extremely flammable gas

Lower Flammable Limit : 1.8 % Upper Flammable Limit : 9.2 %

Vapor Pressure : 7173 mm Hg (138.7 psia)

Relative Vapor Density at 20°C : No data available

**Relative Density** : 1.754 @ 20 °C / 68 °F; (0.54 @ 15.6 °C / 60.08 °F) (water =1)

Specific Gravity : No data available

**Solubility** : Water: Not miscible or difficult to mix

Partition Coefficient: N-Octanol/Water : No data available Viscosity : No data available

**Explosive Properties** : Contains gas under pressure; may explode if heated

#### **SECTION 10: STABILITY AND REACTIVITY**

#### 10.1. Reactivity:

Hazardous reactions will not occur under normal conditions.

#### 10.2. Chemical Stability:

Contains gas under pressure; may explode if heated.

#### 10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

### 10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, open flames, sources of ignition and incompatible materials.

### 10.5. Incompatible Materials:

Strong acids, strong bases, strong oxidizers.

#### 10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Carbon Oxides, Hydrocarbon Vapors, Smoke.

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#### SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified
Acute Toxicity (Dermal): Not classified
Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data:

No additional information available

Skin Corrosion/Irritation: Causes skin irritation.

Eye Damage/Irritation: Not classified

**Respiratory or Skin Sensitization:** Not classified **Germ Cell Mutagenicity:** May cause genetic defects.

Carcinogenicity: May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure.

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): May cause drowsiness or dizziness.

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** In elevated concentrations may cause asphyxiation, central nervous system effects, and increased breathing rate. Symptoms of asphyxiation include headache, dizziness, rapid breathing, increased pulse, mood changes, tremors, cyanosis, muscular weakness, narcosis, numbness of the extremities, unconsciousness and death.

**Symptoms/Injuries After Skin Contact:** Contact with gas/liquid escaping the container can cause frostbite and freeze burns. Redness, pain, swelling, itching, burning, dryness, and dermatitis.

**Symptoms/Injuries After Eye Contact:** Contact with gas/liquid escaping the container can cause frostbite, freeze burns, and permanent eye damage.

**Symptoms/Injuries After Ingestion:** Not considered a potential route of exposure, but contact with gas/liquid escaping the container can cause freeze burns and frostbite.

**Chronic Symptoms:** May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. May cause genetic defects.

### 11.2. Information on Toxicological Effects - Ingredient(s)

### LD50 and LC50 Data:

Propane (74-98-6)		
LC50 Inhalation Rat	> 800000 ppm (Exposure time: 15 min)	
n-Heptane (142-82-5)		
LD50 Oral Rat	> 5000 mg/kg	
LD50 Dermal Rabbit	3000 mg/kg	
LC50 Inhalation Rat	> 73.5 mg/l/4h	
n-Butane (106-97-8)		
LC50 Inhalation Rat	30957 mg/m³ (Exposure time: 4 h)	
LC50 Inhalation Rat	276798.8 ppm	
Ethane (74-84-0)		
LC50 Inhalation Rat	> 800000 ppm/4h	
n-Pentane (109-66-0)		
LD50 Oral Rat	> 2000 mg/kg	
LD50 Dermal Rabbit	3000 mg/kg	
LC50 Inhalation Rat	364 g/m³ (Exposure time: 4 h)	
LC50 Inhalation Rat	> 20 mg/l/4h	
n-hexane (110-54-3)		
LD50 Oral Rat	25 g/kg	
LD50 Dermal Rabbit	3000 mg/kg	
LC50 Inhalation Rat	169 mg/l/4h	
LC50 Inhalation Rat	48000 ppm/4h	
Neohexane (75-83-2)		
LD50 Dermal Rabbit	> 5 ml/kg	

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Benzene (71-43-2)	
LD50 Oral Rat	810 mg/kg
<b>50 Dermal Rabbit</b> > 8200 mg/kg	
LC50 Inhalation Rat	44.66 mg/l/4h
Methylcyclohexane (108-87-2)	
LD50 Oral Rat	> 3200 mg/kg
LD50 Dermal Rabbit	> 86700 mg/kg
LC50 Inhalation Rat	28.4 mg/l/4h
Cyclohexane (110-82-7)	
LD50 Oral Rat	12705 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 32880 mg/m³ (Exposure time: 4 h)
Cyclopentane (287-92-3)	
LD50 Oral Rat	11400 mg/kg
LC50 Inhalation Rat > 25.3 mg/l/4h	
Methanethiol (74-93-1)	
LD50 Dermal Rat	> 84.8 mg/kg
LC50 Inhalation Rat	675 ppm/4h
2-Propanethiol (75-33-2)	
LD50 Oral Rat	2000 – 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 1792 mg/m³ (Exposure time: 4 h)
Benzene (71-43-2)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens, Evidence of Carcinogenicity.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
OSHA Specifically Regulated Carcinogen List	In OSHA Specifically Regulated Carcinogen list.

# **SECTION 12: ECOLOGICAL INFORMATION**

## 12.1. Toxicity

**Ecology - General:** Very toxic to aquatic life with long lasting effects.

n-Heptane (142-82-5)	
LC50 Fish 1	375 mg/l (Exposure time: 96 h - Species: Cichlid fish)
EC50 - Crustacea [1]	0.1 mg/l
Isopentane (78-78-4)	
EC50 - Crustacea [1]	2.3 mg/l (Exposure time: 48 h - Species: Daphnia magna)
n-Pentane (109-66-0)	
LC50 Fish 1	9.87 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 - Crustacea [1]	9.74 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	11.59 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
NOEC Chronic Algae	2 mg/l
n-hexane (110-54-3)	
LC50 Fish 1	2.1 – 2.98 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	3.88 mg/l
Benzene (71-43-2)	
LC50 Fish 1	10.7 – 14.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	8.76 – 15.6 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 Fish 2	5.3 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 - Crustacea [2]	10 mg/l (Exposure time: 48 h - Species: Daphnia magna)
ErC50 algae	29 mg/l
NOEC Chronic Fish	0.8 mg/l

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Cyclohexane (110-82-7)

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Methylcyclohexane (108-87-2)	
LC50 Fish 1	2.07 mg/l (96 h - Oryzias laties)
EC50 - Crustacea [1]	0.33 mg/l
NOEC Chronic Algae	0.067 mg/l
Cyclohexane (110-82-7)	
LC50 Fish 1	3.96 – 5.18 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	0.9 mg/l
LC50 Fish 2	23.03 – 42.07 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
NOEC Chronic Algae	0.94 mg/l
Cyclopentane (287-92-3)	
EC50 - Crustacea [1]	10.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
12.2. Persistence and Degradabilit	у
Demthanized Mix Y Grade	
Persistence and Degradability	May cause long-term adverse effects in the environment.
12.3. Bioaccumulative Potential	
Demthanized Mix Y Grade	
Bioaccumulative Potential	Not established.
Propane (74-98-6)	
Partition coefficient n-octanol/water	1.09 (at 20 °C (at pH 7)
(Log Pow)	
n-Heptane (142-82-5)	
Partition coefficient n-octanol/water	4.66
(Log Pow)	
n-Butane (106-97-8)	
Partition coefficient n-octanol/water	2.31 at 20 °C / 68 °F (at pH 7)
(Log Pow)	
Isopentane (78-78-4)	
Partition coefficient n-octanol/water	4 at 25 °C / 77°F (at pH 6.6)
(Log Pow)	
Isobutane (75-28-5)	
BCF Fish 1	1.57 – 1.97
Partition coefficient n-octanol/water	1.09 – 2.8 at 20 °C / 68 °F (at pH 7)
(Log Pow)	
Ethane (74-84-0)	
Partition coefficient n-octanol/water	1.09 – 2.8 at 20 °C / 68 °F (at pH 7)
(Log Pow)	
n-Pentane (109-66-0)	
Partition coefficient n-octanol/water	3.45 at 25 °C / 68 °F (at pH 7)
(Log Pow)	
n-hexane (110-54-3)	
Partition coefficient n-octanol/water	4 at 20 °C / 68 °F (at pH 7)
(Log Pow)	
Neohexane (75-83-2)	<del>,</del>
Partition coefficient n-octanol/water	3.8
(Log Pow)	
Benzene (71-43-2)	<del>,</del>
BCF Fish 1	3.5 – 4.4
Partition coefficient n-octanol/water	2.13
(Log Pow)	
1	

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Partition coefficient n-octanol/water (Log Pow)	3.44 at 25 °C / 77 °F (at pH 7)	
Cyclopentane (287-92-3)		
Partition coefficient n-octanol/water	3 at 25 °C / 77 °F (at pH 7)	
(Log Pow)		

### 12.4. Mobility in Soil

No additional information available

#### 12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

#### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

Sewage Disposal Recommendations: Do not dispose of waste into sewer. Do not empty into drains.

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

**Additional Information:** Handle empty containers with care because residual vapors are flammable. Empty gas cylinders should be returned to the vendor for recycling or refilling. Do not puncture or incinerate container.

**Ecology - Waste Materials:** Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

# **SECTION 14: TRANSPORT INFORMATION**

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

#### 14.1. In Accordance with DOT

Proper Shipping Name : PROPANE
Hazard Class : 2.1
Identification Number : UN1978
Label Codes : 2.1

Marine Pollutant : Marine pollutant

ERG Number : 115
14.2. In Accordance with IMDG

Proper Shipping Name : PROPANE Hazard Class : 2.1 Identification Number : UN1978 Label Codes : 2.1

EmS-No. (Fire) : F-D EmS-No. (Spillage) : S-U

Marine pollutant : Marine pollutant

14.3. In Accordance with IATA

Proper Shipping Name : PROPANE
Hazard Class : 2.1
Identification Number : UN1978
Label Codes : 2.1

ERG Code (IATA) : 10L 14.4. In Accordance with TDG

Proper Shipping Name : PROPANE
Hazard Class : 2.1
Identification Number : UN1978
Label Codes : 2.1

Marine Pollutant (TDG) : Marine pollutant









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# **SECTION 15: REGULATORY INFORMATION**

<b>15.1.</b>	US Fed	leral	Regu	lations
--------------	--------	-------	------	---------

15.1. US Federal Regulations		
Demthanized Mix Y Grade		
SARA Section 311/312 Hazard Classes	Physical hazard - Flammable (gases, aerosols, liquids, or solids) Physical hazard - Gas under pressure Health hazard - Specific target organ toxicity (single or repeated	
	exposure)	
	Health hazard - Carcinogenicity  Health hazard - Reproductive toxicity	
	Health hazard - Keproductive toxicity  Health hazard - Skin corrosion or Irritation	
	Health hazard - Germ cell mutagenicity	
	Health hazard - Simple asphyxiant	
Propane (74-98-6)	Treatment compression, many	
Listed on the United States TSCA (Toxic Substances Con	trol Act) inventory - Status: Active	
n-Heptane (142-82-5)	· · · · · · · · · · · · · · · · · · ·	
Listed on the United States TSCA (Toxic Substances Con-	trol Act) inventory - Status: Active	
n-Butane (106-97-8)		
Listed on the United States TSCA (Toxic Substances Con-	trol Act) inventory - Status: Active	
Isopentane (78-78-4)		
Listed on the United States TSCA (Toxic Substances Con	trol Act) inventory - Status: Active	
Isobutane (75-28-5)		
Listed on the United States TSCA (Toxic Substances Con-	trol Act) inventory - Status: Active	
Ethane (74-84-0)		
Listed on the United States TSCA (Toxic Substances Con	trol Act) inventory - Status: Active	
n-Pentane (109-66-0)		
Listed on the United States TSCA (Toxic Substances Con	trol Act) inventory - Status: Active	
n-hexane (110-54-3)		
Listed on the United States TSCA (Toxic Substances Con-	trol Act) inventory - Status: Active	
Subject to reporting requirements of United States SARA	A Section 313	
RCLA RQ 5000 lb		
SARA Section 313 - Emission Reporting	1 %	
2-Methylpentane (107-83-5)		
Listed on the United States TSCA (Toxic Substances Con-	trol Act) inventory - Status: Active	
3-Methylpentane (96-14-0)		
Listed on the United States TSCA (Toxic Substances Con	trol Act) inventory - Status: Active	
Neohexane (75-83-2)		
Listed on the United States TSCA (Toxic Substances Con	trol Act) inventory - Status: Active	
Benzene (71-43-2)		
Listed on the United States TSCA (Toxic Substances Con	·	
Subject to reporting requirements of United States SARA		
CERCLA RQ	10 lb	
SARA Section 313 - Emission Reporting	0.1 %	
D018-Unlisted hazardous wastes characteristic of toxic		
CERCLA RQ	10 lb	
Methylcyclohexane (108-87-2)	tral Act inventory Statuc: Active	
Listed on the United States TSCA (Toxic Substances Con	troi Act) inventory - Status: Active	
Cyclohexane (110-82-7)	tral Acthinyantamy Status Activa	
Listed on the United States TSCA (Toxic Substances Con-	·	
Subject to reporting requirements of United States SARA Section 313  CERCLA RQ 1000 lb		
CERCEN RQ	1000 ID	

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SARA Section 313 - Emission Reporting	1 %
Methylcyclopentane (96-37-7)	
Listed on the United States TSCA (Toxic Substances Control	l Act) inventory - Status: Active
3-Methylhexane (589-34-4)	
Listed on the United States TSCA (Toxic Substances Control	Act) inventory - Status: Active
Isoheptane (31394-54-4)	
Listed on the United States TSCA (Toxic Substances Control	Act) inventory - Status: Active
Cyclopentane (287-92-3)	

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

#### Methanethiol (74-93-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the United States SARA Section 302

Subject to reporting requirements of United States SARA Section 313

and jour to report 10.0 requirements or or interest at a control of the control o			
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a final TSCA		
	section 4 test rule.		
CERCLA RQ	100 lb		
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb		
SARA Section 313 - Emission Reporting	1 %		
0.0 11:1/25.00.0)			

#### 2-Propanethiol (75-33-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

#### 15.2. US State Regulations

#### **California Proposition 65**



**WARNING:** This product can expose you to Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

•		U	0 0	
Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
n-hexane (110-54-3)				Х
Benzene (71-43-2)	X	Х		Х

#### Propane (74-98-6)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### n-Heptane (142-82-5)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

### n-Butane (106-97-8)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### Isopentane (78-78-4)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

### Isobutane (75-28-5)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### Ethane (74-84-0)

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- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### n-Pentane (109-66-0)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### n-hexane (110-54-3)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### 2-Methylpentane (107-83-5)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### 3-Methylpentane (96-14-0)

- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### Neohexane (75-83-2)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### Benzene (71-43-2)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List
- U.S. Pennsylvania RTK (Right to Know) Special Hazardous Substances
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List

#### Methylcyclohexane (108-87-2)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

# Cyclohexane (110-82-7)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List

#### Methylcyclopentane (96-37-7)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### 3-Methylhexane (589-34-4)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

#### Isoheptane (31394-54-4)

U.S. - Pennsylvania - RTK (Right to Know) List

#### **Cyclopentane (287-92-3)**

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

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#### Methanethiol (74-93-1)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List

#### 2-Propanethiol (75-33-2)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Massachusetts Right To Know List

## 15.3. Canadian Regulations

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Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian DSL (Domestic Substances List)

Methanethiol (74-93-1)

2-Propanethiol (75-33-2)

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Propane (74-98-6)
Listed on the Canadian DSL (Domestic Substances List)
n-Heptane (142-82-5)
Listed on the Canadian DSL (Domestic Substances List)
n-Butane (106-97-8)
Listed on the Canadian DSL (Domestic Substances List)
Isopentane (78-78-4)
Listed on the Canadian DSL (Domestic Substances List)
Isobutane (75-28-5)
Listed on the Canadian DSL (Domestic Substances List)
Ethane (74-84-0)
Listed on the Canadian DSL (Domestic Substances List)
n-Pentane (109-66-0)
Listed on the Canadian DSL (Domestic Substances List)
n-hexane (110-54-3)
Listed on the Canadian DSL (Domestic Substances List)
2-Methylpentane (107-83-5)
Listed on the Canadian DSL (Domestic Substances List)
3-Methylpentane (96-14-0)
Listed on the Canadian DSL (Domestic Substances List)
Neohexane (75-83-2)
Listed on the Canadian DSL (Domestic Substances List)
Benzene (71-43-2)
Listed on the Canadian DSL (Domestic Substances List)
Methylcyclohexane (108-87-2)
Listed on the Canadian DSL (Domestic Substances List)
Cyclohexane (110-82-7)
Listed on the Canadian DSL (Domestic Substances List)
Methylcyclopentane (96-37-7)
Listed on the Canadian DSL (Domestic Substances List)
3-Methylhexane (589-34-4)
Listed on the Canadian NDSL (Non-Domestic Substances List)
Isoheptane (31394-54-4)
Listed on the Canadian DSL (Domestic Substances List)
Cyclopentane (287-92-3)

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Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest** 

: 06/06/2023

Revision

**Other Information** 

: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

#### **GHS Full Text Phrases:**

H220	Extremely flammable gas
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H331	Toxic if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (Can, US)

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