

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 04/06/2015 Version: 1.0

SECTION 1: Identification

Product Identifier

Product Form: Mixture Product Name: Foam 140®

Alkaline Process & Research Cleaner

Product Code: 1D14

Intended Use of the Product

Use of the substance/mixture: Alkaline Process & Research Cleaner

Name, Address, and Telephone of the Responsible Party

Company

STERIS Corporation Official Mailing Address:

P.O. Box 147

St. Louis, MO 63166 USA

Street Address: 7501 Page Avenue

St. Louis, MO 63133 USA

Telephone Number for Information: 1-800-444-9009 (Customer Service-Life Science Products)

web: www.steris.com

email: asksteris_msds@steris.com

Emergency Telephone Number

Emergency Number : 1-314-535-1395 or CHEMTREC: 1-800-424-9300

SECTION 2: Hazards Identification

Classification of the Substance or Mixture

Classification (GHS-US)

Met. Corr. 1 H290 Skin Corr. 1A H314 Eye Dam. 1 H318 Carc. 2 H351 Full text of H-phrases: see section 16

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Danger





Signal Word (GHS-US)

Hazard Statements (GHS-US)

H290 - May be corrosive to metals.

H314 - Causes severe skin burns and eye damage.

H351 - Suspected of causing cancer.

Precautionary Statements (GHS-US) P260 - Do not breathe mist, spray, vapors.

P264 - Wash hands, forearms, and exposed areas thoroughly after handling. P280 - Wear eye protection, face protection, protective clothing, protective gloves. P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position

comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P308+P313 - If exposed or concerned: Get medical advice/attention. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P363 - Wash contaminated clothing before reuse.

Other Hazards

Other Hazards: May be corrosive to the respiratory tract. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: Composition/Information On Ingredients

Substance

Not applicable

04/06/2015 SDS Ref: 1D14US EN (English US) 1/9

Alkaline Process & Research Cleaner

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

3.2. **Mixture**

Name	Product identifier	%	Classification (GHS-US)
Potassium hydroxide	(CAS No) 1310-58-3	7 - 13	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314 Eye Dam. 1, H318
Potassium silicate	(CAS No) 1312-76-1	1 - 5	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335
Dipropylene glycol monomethyl ether	(CAS No) 34590-94-8	1 - 5	Flam. Liq. 4, H227
Coconut diethanolamide	(CAS No) 68603-42-9	1 - 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Carc. 2, H351
Tetrasodium EDTA	(CAS No) 64-02-8	1 - 5	Comb. Dust Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Dam. 1, H318
Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	(CAS No) 68439-57-6	1 - 5	Skin Irrit. 2, H315 Eye Dam. 1, H318
Poly(oxy-1,2-ethanediyl), .alpha(4-nonylphenyl)omegahydroxy-, branched	(CAS No) 127087-87-0	0.1 - 1	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318
Diethanolamine	(CAS No) 111-42-2	0.1 - 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Carc. 2, H351 STOT RE 2, H373 Aquatic Acute 2, H401 Aquatic Chronic 3, H412

Full text of H-phrases: see section 16 **SECTION 4: First Aid Measures**

Description of First Aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention. First-aid Measures After Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water. Wash contaminated clothing before reuse. First-aid Measures After Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting, Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects, both acute and delayed

Symptoms/Injuries: Causes severe skin burns and eye damage. Suspected of causing cancer. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Symptoms/Injuries After Inhalation: May be corrosive to the respiratory tract. May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: Causes severe skin burns. May cause an allergic skin reaction.

Symptoms/Injuries After Eye Contact: Causes serious eye damage. Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: Suspected of causing cancer.

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: Powder, alcohol-resistant foam, water spray, carbon dioxide (CO₂).

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

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive, however on contact with metals may release explosive hydrogen gas.

Reactivity: Corrosive to metals. Reacts with some acids.

Advice for Firefighters

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

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Do not breathe fumes from fires or vapors from decomposition. Do not allow run-off from firefighting to enter drains or water courses.

04/06/2015 SDS Ref: 1D14US EN (English US) 2/9

Alkaline Process & Research Cleaner

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Hazardous Combustion Products: Carbon oxides (CO, CO₂). Corrosive vapors.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all eyes and skin contact and do not breathe vapor and mist.

6.1.1. For Non-emergency Personnel

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

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: 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.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Absorb spillage to prevent material damage. Cautiously neutralize spilled liquid. Absorb and/or contain spill with inert material, then place in suitable container. Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8: Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see section 13

SECTION 7: Handling And Storage

7.1. Precautions for Safe Handling

Additional Hazards When Processed: May be corrosive to metals.

Precautions for Safe Handling: Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin and clothing. Do not breathe mist, spray, vapors. Use appropriate personal protection equipment (PPE).

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep only in original container.

Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Products: Strong acids. Strong bases. Strong oxidizers. Alkalis. Soft Metals.

7.3. Specific End Use(s)

Alkaline Process & Research Cleaner

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), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Potassium hydroxide (1310)-58-3)		
USA ACGIH	ACGIH Ceiling (mg/m³)	2 mg/m³	
USA NIOSH	NIOSH REL (ceiling) (mg/m³)	2 mg/m³	
Alberta	OEL Ceiling (mg/m³)	2 mg/m³	
British Columbia	OEL Ceiling (mg/m³)	2 mg/m³	
Manitoba	OEL Ceiling (mg/m³)	2 mg/m³	
New Brunswick	OEL Ceiling (mg/m³)	2 mg/m³	
Newfoundland & Labrador	OEL Ceiling (mg/m³)	2 mg/m³	
Nova Scotia	OEL Ceiling (mg/m³)	2 mg/m³	
Nunavut	OEL Ceiling (mg/m³)	2 mg/m³	
Northwest Territories	OEL Ceiling (mg/m³)	2 mg/m³	
Ontario	OEL Ceiling (mg/m³)	2 mg/m³	
Prince Edward Island	OEL Ceiling (mg/m³)	2 mg/m³	
Québec	PLAFOND (mg/m³)	2 mg/m³	
Saskatchewan	OEL Ceiling (mg/m³)	2 mg/m³	
Yukon	OEL Ceiling (mg/m³)	2 mg/m³	
Dipropylene glycol monomethyl ether (34590-94-8)			
USA ACGIH	ACGIH TWA (ppm)	100 ppm	
USA ACGIH	ACGIH STEL (ppm)	150 ppm	
USA OSHA	OSHA PEL (TWA) (mg/m³)	600 mg/m³	
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm	
USA NIOSH	NIOSH REL (TWA) (mg/m³)	600 mg/m ³	

04/06/2015 EN (English US) SDS Ref: 1D14US 3/9

Alkaline Process & Research Cleaner

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

USA NIOSH	LICA NICCUI	NIOCH DEL (TMA) (com)	400
USA IDLH	USA NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
JUSA IDLH US IDLH (ppm) 600 ppm Alberta CEL STEL (pgm²) 909 mg/m³			900 mg/m³
USA IDLH US IDLH (ppm) 600 ppm Alberta CEL STEL (ppm) 150 ppm Alberta CEL STEL (ppm) 150 ppm Alberta CEL STEL (ppm) 150 ppm Alberta CEL TVA (ppm) 100 ppm Alberta CEL TVA (ppm) 100 ppm British Columbia CEL TVA (ppm) 100 ppm Delivation CEL STEL (ppm) 100 ppm Delivation CEL STEL (ppm) 100 ppm Delivation CEL TVA (ppm) 100 ppm Delivation CEL STEL (ppm) 100 ppm Del	USA NIOSH	NIOSH REL (STEL) (ppm)	150 nnm
Alberta		, , , , ,	
Alberta			
Alberta	Alberta	, ,	909 mg/m³
Alberta	Alberta	OEL STEL (ppm)	150 ppm
Alberta	* * * * * * * * * * * * * * * * * * * *		
British Columbia OEL STEL (ppm) 150 ppm	Alberta	OEL TWA (mg/m³)	606 mg/m³
British Columbia OEL STEL (ppm) 150 ppm	Alberta	OEL TWA (ppm)	100 ppm
British Columbia OEL TWA (ppm) 100 ppm			
Manitoba	British Columbia	OEL STEL (ppm)	150 ppm
Manitoba	British Columbia	OFL TWA (ppm)	100 ppm
Maniloba CEL TIVA (ppm) 100 ppm	NA 22 1		
New Brunswick OEL STEL (mg/m²) 900 mg/m²			
New Brunswick OEL TYMA (mg/m²)	Manitoba	OEL TWA (ppm)	100 ppm
New Brunswick OEL TYMA (mg/m²)	New Brunswick	OFL STEL (mg/m³)	909 mg/m ³
New Brunswick OEL TWA (ppm) 100 ppm			
New Brunswick OEL TWA (ppm) 100 ppm			150 ppiii
Newfoundland & Labrador OEL STEL (ppm) 150 ppm 100 ppm 1			
Newfoundland & Labrador OEL TWA (ppm) 100 ppm	New Brunswick		100 ppm
Newfoundland & Labrador OEL TWA (ppm) 100 ppm	Newfoundland & Labrador	OEL STEL (ppm)	150 ppm
Nova Scotia OEL STEL (ppm) 150 ppm			
Nova Scotia			
Nunavut	Nova Scotia	OEL STEL (ppm)	150 ppm
Nunavut	Nova Scotia	OEL TWA (ppm)	100 ppm
Nunavut			
Nunavut			
Nunavut			
Northwest Territories OEL STEL (mg/m²) 909 mg/m³ 150 ppm 160 ppm	Nunavut	OEL TWA (mg/m³)	606 mg/m³
Northwest Territories OEL STEL (mg/m²) 909 mg/m³ 150 ppm 150 ppm Northwest Territories OEL TWA (mg/m³) 606 mg/m³ 606 mg/m³ Northwest Territories OEL TWA (ppm) 100 ppm 100 ppm 150	Nunavut	OFL TWA (ppm)	100 ppm
Northwest Territories OEL STEL (ppm) 150 ppm			
Northwest Territories OEL TWA (mg/m³) 606 mg/m³			
Northwest Territories OEL TWA (ppm) 100 ppm	inorthwest Territories	OEL STEL (ppm)	150 ppm
Northwest Territories OEL TWA (ppm) 100 ppm	Northwest Torritories	OFL TWA (mg/m3)	606 mg/m ³
Ontario OEL STEL (ppm) 150 ppm Ontario OEL TWA (ppm) 100 ppm Prince Edward Island OEL STEL (ppm) 150 ppm Prince Edward Island OEL TWA (ppm) 100 ppm Québec VECD (mg/m²) 909 mg/m³ Québec VEMP (mg/m³) 606 mg/m³ Québec VEMP (mg/m³) 606 mg/m³ Québec VEMP (ppm) 100 ppm Saskatchewan OEL STEL (ppm) 150 ppm Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA NIOSH NIOSH REL (TWA) (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) <td< td=""><td>Northwest Territories</td><td>OEL TWA (mg/m²)</td><td>606 mg/m²</td></td<>	Northwest Territories	OEL TWA (mg/m²)	606 mg/m²
Ontario OEL STEL (ppm) 150 ppm Ontario OEL TWA (ppm) 100 ppm Prince Edward Island OEL STEL (ppm) 150 ppm Prince Edward Island OEL TWA (ppm) 100 ppm Québec VECD (mg/m²) 909 mg/m³ Québec VEMP (mg/m³) 606 mg/m³ Québec VEMP (mg/m³) 606 mg/m³ Québec VEMP (ppm) 100 ppm Saskatchewan OEL STEL (ppm) 150 ppm Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA NIOSH NIOSH REL (TWA) (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) <td< td=""><td>Northwest Territories</td><td>OEL TWA (ppm)</td><td>100 ppm</td></td<>	Northwest Territories	OEL TWA (ppm)	100 ppm
Ontario OEL TWA (ppm) 100 ppm Prince Edward Island OEL STEL (ppm) 150 ppm Prince Edward Island OEL TWA (ppm) 100 ppm Québec VECD (mg/m³) 909 mg/m³ Québec VEMP (mg/m³) 606 mg/m³ Québec VEMP (ppm) 100 ppm Québec VEMP (ppm) 100 ppm Saskatchewan OEL STEL (ppm) 150 ppm Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (mg/m³) 15 mg/m³ Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/			
Prince Edward Island OEL TWA (ppm) 150 ppm Prince Edward Island OEL TWA (ppm) 100 ppm Québec VECD (mg/m³) 999 mg/m³ Québec VEMP (mg/m³) 606 mg/m³ Québec VEMP (mg/m³) 606 mg/m³ Québec VEMP (ppm) 100 ppm Saskatchewan OEL STEL (ppm) 150 ppm Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (mg/m³) 15 mg/m³ USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (ppm) 0.46 ppm New Funswick OEL TWA (ppm) 0.46 ppm Nova Scotia OEL TWA (pm/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (ppm) 3 ppm			150 ppiii
Prince Edward Island OEL TWA (ppm) 100 ppm Québec VECD (pgm) 909 mg/m³ Québec VEMP (mg/m³) 606 mg/m³ Québec VEMP (ppm) 100 ppm Saskatchewan OEL STEL (ppm) 150 ppm Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) W USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (mg/m³) 15 mg/m³ USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Funswick OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut			100 ppm
Québec VECD (pgm) 909 mg/m³ Québec VECD (ppm) 150 ppm Québec VEMP (mg/m³) 606 mg/m³ Québec VEMP (ppm) 100 ppm Saskatchewan OEL STEL (ppm) 150 ppm Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 2 mg/m³ Mew Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (ppm) 0.46 ppm Newfoundland & Labrador OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL STEL (ppm) 3 ppm Nunavut OEL STEL (mg/m³) 13 mg/m³ <	Prince Edward Island	OEL STEL (ppm)	150 ppm
Québec VECD (pgm) 909 mg/m³ Québec VECD (ppm) 150 ppm Québec VEMP (mg/m³) 606 mg/m³ Québec VEMP (ppm) 100 ppm Saskatchewan OEL STEL (ppm) 150 ppm Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (pgm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ Alberta OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL STEL (ppm) 3 ppm Nunavut OEL STEL (ppm) 6 ppm	Prince Edward Island	OEL TWA (ppm)	100 ppm
Québec VECD (ppm) 150 ppm Québec VEMP (mg/m³) 606 mg/m³ Québec VEMP (ppm) 100 ppm Québec VEMP (ppm) 100 ppm Saskatchewan OEL STEL (ppm) 150 ppm Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA ROSH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (pg/m³) 26 mg/m³ Nunavut OEL S			
Québec VEMP (ppm) 606 mg/m³ Québec VEMP (ppm) 100 ppm Saskatchewan OEL STEL (ppm) 150 ppm Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (mg/m³) 15 mg/m³ USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL STEL (mg/m³) 13 mg/m³ Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northw	la contraction of the contractio		
Québec VEMP (ppm) 100 ppm Saskatchewan OEL STEL (ppm) 150 ppm Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (mg/m³) 15 mg/m³ USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL TWA (mg/m³) 26 mg/m³ Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (mg/m³) 26 mg/m³ Northwest Territories OEL TWA (ppm) 6 ppm Northwest Territori		VECD (ppiii)	
Saskatchewan OEL STEL (ppm) 150 ppm Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (mg/m³) 15 mg/m³ USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL TWA (mg/m³) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL STEL (ppm) 13 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm		VEMP (mg/m³)	
Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (mg/m³) 15 mg/m³ USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (ppm) 0.46 ppm Newfoundland & Labrador OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (mg/m³) 3 ppm	Québec	VEMP (ppm)	100 ppm
Saskatchewan OEL TWA (ppm) 100 ppm Diethanolamine (111-42-2) USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (mg/m³) 15 mg/m³ USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (ppm) 0.46 ppm Newfoundland & Labrador OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (mg/m³) 3 ppm	Cooketehowen	OFI CTFI (nnm)	150 nnm
Diethanolamine (111-42-2) USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) USA NIOSH NIOSH REL (TWA) (mg/m³) 15 mg/m³ USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm Alberta OEL TWA (mg/m²) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (ppm) 0.46 ppm Newfoundland & Labrador OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Nunavut OEL TWA (ppm) 3 ppm Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (mg/m³) 3 ppm			
USA ACGIH ACGIH TWA (mg/m³) USA NIOSH NIOSH REL (TWA) (mg/m³) NIOSH REL (TWA) (ppm) Alberta OEL TWA (mg/m³) British Columbia OEL TWA (mg/m³) Manitoba OEL TWA (mg/m³) New Brunswick OEL TWA (mg/m³) New Brunswick OEL TWA (mg/m³) New Brunswick OEL TWA (mg/m³) New Gotia OEL TWA (mg/m³) New Gotia OEL TWA (mg/m³) Nova Scotia OEL TWA (mg/m³) Nunavut OEL STEL (ppm) Nunavut OEL TWA (mg/m³) Northwest Territories OEL STEL (ppm) Northwest Territories OEL TWA (mg/m³) Northwest Territories OEL TWA (mg/m³) Northwest Territories OEL TWA (mg/m³) Northwest Territories OEL TWA (ppm) OEL TWA (ppm) OEL TWA (mg/m³) Northwest Territories OEL TWA (mg/m³) Northwest Territories OEL TWA (ppm) OEL	Saskatchewan	OEL TWA (ppm)	100 ppm
USA ACGIH ACGIH TWA (mg/m³) USA NIOSH NIOSH REL (TWA) (mg/m³) NIOSH REL (TWA) (ppm) Alberta OEL TWA (mg/m³) British Columbia OEL TWA (mg/m³) Manitoba OEL TWA (mg/m³) New Brunswick OEL TWA (mg/m³) New Brunswick OEL TWA (mg/m³) New Brunswick OEL TWA (mg/m³) New Gotia OEL TWA (mg/m³) New Gotia OEL TWA (mg/m³) Nova Scotia OEL TWA (mg/m³) Nunavut OEL STEL (ppm) Nunavut OEL TWA (mg/m³) Northwest Territories OEL STEL (ppm) Northwest Territories OEL TWA (mg/m³) Northwest Territories OEL TWA (mg/m³) Northwest Territories OEL TWA (mg/m³) Northwest Territories OEL TWA (ppm) OEL TWA (ppm) OEL TWA (mg/m³) Northwest Territories OEL TWA (mg/m³) Northwest Territories OEL TWA (ppm) OEL	Diethanolamine (111-42-2)		
USA NIOSH NIOSH REL (TWA) (mg/m³) 15 mg/m³ USA NIOSH NIOSH REL (TWA) (ppm) Alberta OEL TWA (mg/m³) British Columbia OEL TWA (mg/m³) Manitoba OEL TWA (mg/m³) New Brunswick OEL TWA (mg/m³) New Brunswick OEL TWA (mg/m³) New Brunswick OEL TWA (ppm) Newfoundland & Labrador Nous Scotia OEL TWA (mg/m³) Nunavut OEL STEL (mg/m³) Nunavut OEL STEL (ppm) Nunavut OEL STEL (ppm) Nunavut OEL TWA (mg/m³) Nunavut OEL TWA (mg/m³) Nunavut OEL STEL (ppm) Nunavut OEL STEL (ppm) OEL TWA (mg/m³) Nunavut OEL TWA (mg/m³) Nunavut OEL STEL (ppm) OEL TWA (mg/m³) Nunavut OEL TWA (mg/m³) Northwest Territories OEL TWA (ppm) 3 ppm		ACCILLTM/A (m a/m3)	1 mg/m3 (inhalable fraction and vanor)
USA NIOSH Alberta OEL TWA (mg/m³) British Columbia OEL TWA (mg/m³) DEL TWA (mg/m³) Manitoba OEL TWA (mg/m³) New Brunswick OEL TWA (mg/m³) New Brunswick OEL TWA (ppm) Newfoundland & Labrador Nova Scotia OEL TWA (mg/m³) Nunavut OEL STEL (mg/m³) Nunavut OEL STEL (ppm) Nunavut OEL TWA (mg/m³) Nunavut OEL TWA (mg/m³) Nunavut OEL STEL (mg/m³) Nunavut OEL STEL (ppm) Northwest Territories OEL TWA (ppm) OEL STEL (ppm) Northwest Territories OEL TWA (mg/m³) Northwest Territories OEL TWA (ppm) 3 ppm			1 mg/m³ (innalable fraction and vapor)
Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (ppm) 0.46 ppm Newfoundland & Labrador OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL STEL (mg/m³) 13 mg/m³ Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL STEL (ppm) 3 ppm Northwest Territories OEL STEL (ppm) 3 ppm Northwest Territories OEL STEL (ppm) 3 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (mg/m³) 3 ppm	USA NIOSH	NIOSH REL (TWA) (mg/m³)	15 mg/m³
Alberta OEL TWA (mg/m³) 2 mg/m³ British Columbia OEL TWA (mg/m³) 2 mg/m³ Manitoba OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (ppm) 0.46 ppm Newfoundland & Labrador OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL STEL (mg/m³) 13 mg/m³ Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL STEL (ppm) 3 ppm Northwest Territories OEL STEL (ppm) 3 ppm Northwest Territories OEL STEL (ppm) 3 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (mg/m³) 3 ppm	USA NIOSH	NIOSH REL (TWA) (ppm)	3 ppm
British Columbia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) New Brunswick OEL TWA (mg/m³) New Brunswick OEL TWA (ppm) Newfoundland & Labrador Newfoundland & Labrador OEL TWA (mg/m³) Nunavut OEL STEL (mg/m³) Nunavut OEL STEL (ppm) Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (mg/m³) Nunavut OEL STEL (ppm) OEL TWA (mg/m³) Nunavut OEL STEL (ppm) OEL TWA (mg/m³) Nunavut OEL TWA (mg/m³) Nunavut OEL TWA (ppm) OEL TWA (ppm) OEL TWA (ppm) OEL TWA (ppm) OEL STEL (mg/m³) Northwest Territories OEL STEL (ppm) OEL STEL (ppm) OEL STEL (ppm) OEL STEL (mg/m³) OEL STEL (mg/m³) Northwest Territories OEL STEL (ppm) O			
ManitobaOEL TWA (mg/m³)1 mg/m³ (inhalable fraction and vapor)New BrunswickOEL TWA (mg/m³)2 mg/m³New BrunswickOEL TWA (ppm)0.46 ppmNewfoundland & LabradorOEL TWA (mg/m³)1 mg/m³ (inhalable fraction and vapor)Nova ScotiaOEL TWA (mg/m³)1 mg/m³ (inhalable fraction and vapor)NunavutOEL STEL (mg/m³)26 mg/m³NunavutOEL STEL (ppm)6 ppmNunavutOEL TWA (mg/m³)13 mg/m³NunavutOEL TWA (ppm)3 ppmNorthwest TerritoriesOEL STEL (mg/m³)26 mg/m³Northwest TerritoriesOEL STEL (ppm)6 ppmNorthwest TerritoriesOEL STEL (ppm)6 ppmNorthwest TerritoriesOEL TWA (mg/m³)13 mg/m³Northwest TerritoriesOEL TWA (mg/m³)3 ppm		`	
New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (ppm) 0.46 ppm Newfoundland & Labrador OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (mg/m³) 3 ppm Northwest Territories OEL TWA (ppm) 3 ppm	British Columbia		2 mg/m³
New Brunswick OEL TWA (mg/m³) 2 mg/m³ New Brunswick OEL TWA (ppm) 0.46 ppm Newfoundland & Labrador OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (mg/m³) 3 ppm Northwest Territories OEL TWA (ppm) 3 ppm	Manitoba	OEL TWA (mg/m³)	1 mg/m³ (inhalable fraction and vapor)
New Brunswick OEL TWA (ppm) 0.46 ppm Newfoundland & Labrador OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (ppm) 3 ppm			3 (
Newfoundland & Labrador OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (ppm) 3 ppm			
Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (ppm) 3 ppm			
Nova Scotia OEL TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor) Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (ppm) 3 ppm			1 mg/m³ (inhalable fraction and vapor)
Nunavut OEL STEL (mg/m³) 26 mg/m³ Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (ppm) 3 ppm		OEL TWA (mg/m³)	1 mg/m³ (inhalable fraction and vapor)
Nunavut OEL STEL (ppm) 6 ppm Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (ppm) 3 ppm			
Nunavut OEL TWA (mg/m³) 13 mg/m³ Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (ppm) 3 ppm		OEL STEL (mg/m³)	··· · · · · · · · · · · · · · · · ·
Nunavut OEL TWA (ppm) 3 ppm Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (ppm) 3 ppm			6 nnm
Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (ppm) 3 ppm		OEL STEL (ppm)	
Northwest Territories OEL STEL (mg/m³) 26 mg/m³ Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (ppm) 3 ppm	Nunavut	OEL STEL (ppm) OEL TWA (mg/m³)	13 mg/m³
Northwest Territories OEL STEL (ppm) 6 ppm Northwest Territories OEL TWA (mg/m³) 13 mg/m³ Northwest Territories OEL TWA (ppm) 3 ppm	Northwest Territories	OEL STEL (ppm) OEL TWA (mg/m³)	13 mg/m³
Northwest Territories OEL TWA (mg/m³) Northwest Territories OEL TWA (ppm) 3 ppm		OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm)	13 mg/m³ 3 ppm
Northwest Territories OEL TWA (ppm) 3 ppm		OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³)	13 mg/m³ 3 ppm 26 mg/m³
Northwest Territories OEL TWA (ppm) 3 ppm		OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³)	13 mg/m³ 3 ppm 26 mg/m³
	Northwest Territories	OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³) OEL STEL (ppm)	13 mg/m³ 3 ppm 26 mg/m³ 6 ppm
	Northwest Territories Northwest Territories	OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³) OEL STEL (ppm) OEL TWA (mg/m³)	13 mg/m³ 3 ppm 26 mg/m³ 6 ppm 13 mg/m³
LODIAGO LOFE LIVA (MO/MS) LOFE LIVA (MO/MS)	Northwest Territories Northwest Territories	OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³) OEL STEL (ppm) OEL TWA (mg/m³)	13 mg/m³ 3 ppm 26 mg/m³ 6 ppm 13 mg/m³
	Northwest Territories Northwest Territories Northwest Territories	OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³) OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (mg/m³)	13 mg/m³ 3 ppm 26 mg/m³ 6 ppm 13 mg/m³ 3 ppm
	Northwest Territories Northwest Territories Northwest Territories Ontario	OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³) OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (mg/m³) OEL TWA (ppm) OEL TWA (mg/m³)	13 mg/m³ 3 ppm 26 mg/m³ 6 ppm 13 mg/m³ 3 ppm 1 mg/m³ (inhalable fraction and vapor)
	Northwest Territories Northwest Territories Northwest Territories Ontario Prince Edward Island	OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³) OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL TWA (ppm) OEL TWA (mg/m³) OEL TWA (mg/m³)	13 mg/m³ 3 ppm 26 mg/m³ 6 ppm 13 mg/m³ 3 ppm 1 mg/m³ (inhalable fraction and vapor) 1 mg/m³ (inhalable fraction and vapor)
Québec VEMP (ppm) 3 ppm	Northwest Territories Northwest Territories Northwest Territories Ontario Prince Edward Island Québec	OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³) OEL STEL (ppm) OEL TWA (mg/m³) VEMP (mg/m³)	13 mg/m³ 3 ppm 26 mg/m³ 6 ppm 13 mg/m³ 3 ppm 1 mg/m³ (inhalable fraction and vapor) 1 mg/m³ (inhalable fraction and vapor) 13 mg/m³
	Northwest Territories Northwest Territories Northwest Territories Ontario Prince Edward Island	OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³) OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL TWA (ppm) OEL TWA (mg/m³) OEL TWA (mg/m³)	13 mg/m³ 3 ppm 26 mg/m³ 6 ppm 13 mg/m³ 3 ppm 1 mg/m³ (inhalable fraction and vapor) 1 mg/m³ (inhalable fraction and vapor)
	Northwest Territories Northwest Territories Northwest Territories Ontario Prince Edward Island Québec Québec	OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³) OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL TWA (ppm) OEL TWA (mg/m³) OEL TWA (mg/m³) VEMP (mg/m³) VEMP (ppm)	13 mg/m³ 3 ppm 26 mg/m³ 6 ppm 13 mg/m³ 3 ppm 1 mg/m³ (inhalable fraction and vapor) 1 mg/m³ (inhalable fraction and vapor) 13 mg/m³ 3 ppm
	Northwest Territories Northwest Territories Northwest Territories Ontario Prince Edward Island Québec Québec Saskatchewan	OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³) OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL TWA (ppm) OEL TWA (mg/m³) OEL TWA (mg/m³) VEMP (mg/m³) VEMP (ppm) OEL STEL (mg/m³)	13 mg/m³ 3 ppm 26 mg/m³ 6 ppm 13 mg/m³ 3 ppm 1 mg/m³ (inhalable fraction and vapor) 1 mg/m³ (inhalable fraction and vapor) 13 mg/m³ 3 ppm 4 mg/m³
paskarchewan UEL LVVA (mo/m²) 1.2 mo/m³	Northwest Territories Northwest Territories Northwest Territories Ontario Prince Edward Island Québec Québec	OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL STEL (mg/m³) OEL STEL (ppm) OEL TWA (mg/m³) OEL TWA (ppm) OEL TWA (ppm) OEL TWA (mg/m³) OEL TWA (mg/m³) VEMP (mg/m³) VEMP (ppm)	13 mg/m³ 3 ppm 26 mg/m³ 6 ppm 13 mg/m³ 3 ppm 1 mg/m³ (inhalable fraction and vapor) 1 mg/m³ (inhalable fraction and vapor) 13 mg/m³ 3 ppm

04/06/2015 EN (English US) SDS Ref: 1D14US 4/9

Alkaline Process & Research Cleaner

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Exposure Controls

Appropriate Engineering Controls

Personal Protective Equipment

- : 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.
- : Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory

protection. Face shield.











Materials for Protective Clothing

Hand Protection Eye Protection

Other Information

Skin and Body Protection

Respiratory Protection

Chemically resistant and corrosion-proof materials and fabrics.

Wear chemically resistant protective gloves. Chemical safety goggles and face shield.

Wear suitable protective clothing.

If exposure limits are exceeded or irritation is experienced, approved respiratory protection

should be worn.

When using, do not eat, drink or smoke.

SECTION 9: Physical And Chemical Properties

Information on Basic Physical and Chemical Properties

Physical State

Appearance Light yellow to light orange

Odor Slight chemical Odor Threshold No data available Hq ≈ 12 (1% Soln) Evaporation rate No data available

Melting Point No data available Freezing Point No data available **Boiling Point** No data available Flash Point No data available Auto-ignition Temperature No data available **Decomposition Temperature** No data available Flammability (solid, gas) No data available No data available Vapor Pressure Relative Vapor Density at 20 °C No data available

1.178 g/ml Specific Gravity Solubility Complete in water.

Partition coefficient: n-octanol/water No data available Viscosity No data available

Explosion Data - Sensitivity to Mechanical Impact Not expected to present an explosion hazard due to mechanical impact. Explosion Data - Sensitivity to Static Discharge Not expected to present an explosion hazard due to static discharge.

Other Information

No additional information available

SECTION 10: Stability And Reactivity

Reactivity:

Corrosive to soft metals. Reacts exothermically with (some) acids.

Chemical Stability:

Stable under normal conditions.

Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

Direct sunlight. Extremely high or low temperatures. Incompatible materials.

Incompatible Materials:

Strong acids. Strong bases. Strong oxidizers. Alkalis. Metals. May be corrosive to soft metals.

Hazardous Decomposition Products:

Carbon oxides (CO, CO₂). Thermal decomposition generates: Corrosive vapors. Sulfur oxides. Metal oxides. Potassium oxides. Nitrogen oxides. Hydrogen.

SECTION 11: Toxicological Information

Information On Toxicological Effects

Acute Toxicity: Not classified

Potassium hydroxide (1310-58-3)	
LD50 Oral Rat	333 mg/kg

04/06/2015 SDS Ref: 1D14US EN (English US) 5/9

Alkaline Process & Research Cleaner

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Dipropylene glycol monomethyl ether (34590-94-8)		
LD50 Oral Rat	5230 mg/kg	
LD50 Dermal Rabbit	9500 mg/kg	
Sulfonic acids, C14-16-alkane hydroxy and C14-16-alke	ene, sodium salts (68439-57-6)	
LD50 Oral Rat	2310 mg/kg	
LD50 Dermal Rabbit	6300 mg/kg	
Diethanolamine (111-42-2)		
LD50 Oral Rat	1820 mg/kg	
Coconut diethanolamide (68603-42-9)		
LD50 Oral Rat	12400 mg/kg	
LD50 Dermal Rabbit	> 2000 mg/kg	
Tetrasodium EDTA (64-02-8)		
LD50 Oral Rat	1780 mg/kg	
ATE (Dust/Mist)	1.50 mg/l/4h	
Poly(oxy-1,2-ethanediyl), .alpha(4-nonylphenyl)omegahydroxy-, branched (127087-87-0)		
LD50 Oral Rat	1310 mg/kg	
Potassium silicate (1312-76-1)		
LD50 Oral Rat	1300 mg/kg	

Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

pH: ≈ 12 (1% Soln)

Serious Eye Damage/Irritation: Causes serious eye damage.

pH: ≈ 12 (1% Soln)

Respiratory or Skin Sensitization: No data available.

Germ Cell Mutagenicity: Not classified Teratogenicity: No data available

Carcinogenicity: Suspected of causing cancer.

• • •		
Diethanolamine (111-42-2)		
IARC group	2B	
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity.	
Coconut diethanolamide (68603-42-9)		
IARC group	2B	
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity.	

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May be corrosive to the respiratory tract. May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: Causes severe skin burns.

Symptoms/Injuries After Eye Contact: Causes serious eye damage. Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: Suspected of causing cancer. Causes damage to organs through prolonged or repeated exposure.

SECTION 12: Ecological Information

12.1. Toxicity

Ecology - General : Harmful to aquatic life.

Dipropylene glycol monomethyl ether (34590-94-8)		
LC50 Fish 1	> 10000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])	
EC50 Daphnia 1	1919 mg/l (Exposure time: 48 h - Species: Daphnia magna)	
Sulfonic acids, C14-16-alkane hydroxy and C	14-16-alkene, sodium salts (68439-57-6)	
LC50 Fish 1	4.2 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])	
EC50 Daphnia 1	4.53 mg/l (Ceriodaphnia sp)	
LC 50 Fish 2	12.2 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])	
ErC50 (algae)	5.2 mg/l (Water quality - Marine Algal Growth Inhibition Test with Skeletonema costatum and	
	Phaeodactylum tricornutum)	
Diethanolamine (111-42-2)		
LC50 Fish 1	4460 (4460 - 4980) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])	
EC50 Daphnia 1	55 mg/l (Exposure time: 48 h - Species: Daphnia magna)	
LC 50 Fish 2	1200 (1200 - 1580) mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])	
EC50 Other Aquatic Organisms 2	2.1 (2.1 - 2.3) mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata)	
ErC50 (algae)	2.2 mg/l (Exposure time: 96 h - Species: Pseudokirchnerella subcapitata [Static])	
Coconut diethanolamide (68603-42-9)		
LC50 Fish 1	3.6 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])	
EC50 Daphnia 1	2.15 mg/l (Exposure time: 48 h - Species: Daphnia pulex [Static])	
ErC50 (algae)	2.2 mg/l (Exposure time: 72 h - Species: Scenedesmus subspicatus)	

04/06/2015 EN (English US) SDS Ref: 1D14US 6/9

Alkaline Process & Research Cleaner

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Tetrasodium EDTA (64-02-8)	
LC50 Fish 1	486 (Exposure time: 96h - Species: Lepomis macrochirus)
EC50 Daphnia 1	625 mg/l (Exposure time: 24 h - Species: Daphnia magna)
ErC50 (algae)	3 mg/l (exposure time: 96 h - Species:Green Algae)
Potassium silicate (1312-76-1)	
LC50 Fish 1	301 - 478 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)
LC 50 Fish 2	3185 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])

12.2. Persistence and Degradability

Foam 140 [®] Alkaline Process & Research Cleaner	
Persistence and Degradability	Not established.
Dipropylene glycol monomethyl ether (34590-94-8)	
Persistence and Degradability	Readily biodegradable.

12.3. Bioaccumulative Potential

Foam 140 [®] Alkaline Process & Research Cleaner		
Bioaccumulative Potential	Not established.	
Potassium hydroxide (1310-58-3)		
Log Pow	0.65	
Dipropylene glycol monomethyl ether (34590-94-8		
Log Pow	-0.064 (at 20 °C)	
Bioaccumulative Potential	Not expected to bioaccumulate.	
Diethanolamine (111-42-2)		
BCF fish 1	(no significant bioconcentration)	
Log Pow	-2.18 (at 25 °C)	
Tetrasodium EDTA (64-02-8)		
Log Pow	5.01 (calculated)	
Potassium silicate (1312-76-1)		
BCF fish 1	(no bioaccumulation expected)	

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: This material is hazardous to the aquatic environment. Keep out of sewers and waterways. Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: Transport Information

14.1 In Accordance with DOT

Proper Shipping Name : POTASSIUM HYDROXIDE, SOLUTION

Hazard Class : 8 Identification Number : UN1814 Label Codes : 8

...



14.2 In Accordance with IMDG

Packing Group ERG Number

Proper Shipping Name : POTASSIUM HYDROXIDE SOLUTION

: II : 154

Hazard Class : 8
Identification Number : UN1814
Packing Group : II
Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B



14.3 In Accordance with IATA

Proper Shipping Name : POTASSIUM HYDROXIDE, SOLUTION

Packing Group : II
Identification Number : UN1814
Hazard Class : 8
Label Codes : 8



04/06/2015 EN (English US) SDS Ref: 1D14US 7/9

Alkaline Process & Research Cleaner

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

ERG Code (IATA) : 81

14.4 In Accordance with TDG

Proper Shipping Name POTASSIUM HYDROXIDE, SOLUTION

Packing Group Ш Hazard Class 8 **Identification Number** UN1814

Label Codes 8



SECTION 15: Regulatory Information

US Federal Regulations

Foam 140®

Alkaline Process & Research Cleaner

Immediate (acute) health hazard SARA Section 311/312 Hazard Classes

Potassium hydroxide (1310-58-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Dipropylene glycol monomethyl ether (34590-94-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag T - T - indicates a substance that is the subject of a Section 4 test rule under

TSCA.

Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts (68439-57-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Diethanolamine (111-42-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on United States SARA Section 313

SARA Section 313 - Emission Reporting

Coconut diethanolamide (68603-42-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Tetrasodium EDTA (64-02-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched (127087-87-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Potassium silicate (1312-76-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations

Not applicable

15.3. Canadian Regulations

Potassium hydroxide (1310-58-3)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

Dipropylene glycol monomethyl ether (34590-94-8)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts (68439-57-6)

Listed on the Canadian DSL (Domestic Substances List)

Diethanolamine (111-42-2)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

Coconut diethanolamide (68603-42-9)

Listed on the Canadian DSL (Domestic Substances List)

Tetrasodium EDTA (64-02-8)

Listed on the Canadian DSL (Domestic Substances List)

Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched (127087-87-0)

Listed on the Canadian DSL (Domestic Substances List)

Potassium silicate (1312-76-1)

Listed on the Canadian DSL (Domestic Substances List)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

04/06/2015 SDS Ref: 1D14US 8/9 EN (English US)

Alkaline Process & Research Cleaner

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 16: Other Information

Revision Date : 04/06/2015

Other Information : This document has been prepared in accordance with the SDS requirements of

the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Carc. 2	Carcinogenicity Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Flam. Liq. 4	Flammable liquids Category 4
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
H227	Combustible liquid
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer

NFPA health hazard

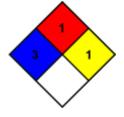
: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was

given.

NFPA fire hazard NFPA reactivity

1 - Must be preheated before ignition can occur.

1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



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.

SDS NA. Mex GHS

04/06/2015 EN (English US) SDS Ref: 1D14US 9/9