

#### Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

Revision Date: 06/24/2019 Date of Issue: 10/05/2017

Version: 3.0

#### **SECTION 1: IDENTIFICATION**

#### Product Identifier

Product Form: Mixture

Product Name: Sodium hydroxide, 32% solution, Membrane and Diaphragm Grade

Synonyms: Caustic Soda

#### Intended Use of the Product

Neutralization of acids, pH control, gas scrubbing, catalyst. Used in manufacture of pulp and paper, petroleum and natural gas, soap and detergents and cellulosic. Also used in water treatment, food processing, mining and metal processing.

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

Manufacturer

CHEMTRADE LOGISTICS INC. 155 Gordon Baker Road Suite 300 Toronto, Ontario M2H 3N5 For SDS Info: (416) 496-5856 www.chemtradelogistics.com

#### **Emergency Telephone Number**

Emergency Number :

Canada/US: CHEMTREC +1-800-424-9300 INTERNATIONAL: +1-703-741-5970

#### Chemtrade Emergency Contact: (866) 416-4404

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC - Day or Night

#### SECTION 2: HAZARDS IDENTIFICATION

<b>Classification of the</b>	Substance or Mixture

Met. Corr. 1	H290
Skin Corr. 1A	H314
Eye Dam. 1	H318
Aquatic Acute 3	H402

Full text of hazard classes and H-statements : see section 16

#### Label Elements

GHS Labeling

Hazard Pictograms

	GHS05
Signal Word	: Danger
Hazard Statements	: H290 - May be corrosive to metals.
	H314 - Causes severe skin burns and eye damage.
	H318 - Causes serious eye damage.
	H402 - Harmful to aquatic life.
Precautionary Statements	: P234 - Keep only in original container.
	P260 - Do not breathe vapors, mist, or spray.
	P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
	P273 - Avoid release to the environment.
	P280 - Wear protective gloves, protective clothing, and eye protection.
	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.

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

Rinse skin with water.

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

P310 - Immediately call a POISON CENTER or doctor.

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

P363 - Wash contaminated clothing before reuse.

P390 - Absorb spillage to prevent material damage.

P405 - Store locked up.

P406 - Store in corrosive resistant container with a resistant inner liner.

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

territorial, provincial, and international regulations.

#### **Other Hazards**

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

#### Unknown acute toxicity

No data available

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

#### Mixture

Name	Product Identifier	%*	GHS Ingredient Classification
Sodium hydroxide	(CAS-No.) 1310-73-2	30 - 60 <sup>≁</sup>	Met. Corr. 1, H290
			Skin Corr. 1A, H314
			Eye Dam. 1, H318
			Aquatic Acute 3, H402
Water	(CAS-No.) 7732-18-5	40 - 70	Not classified

Full text of H-phrases: see section 16

\*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%).

<sup>+</sup>The actual concentration of the ingredient(s) is withheld as a trade secret in accordance with Regulations Amending the Hazardous Products Regulations (HPR) SOR/2018-68 and 29 CFR 1910.1200.

#### SECTION 4: FIRST AID MEASURES

#### **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:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Remove contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Get immediate medical advice/attention. Wash contaminated clothing before reuse.

**Eye Contact:** Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

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

General: Corrosive to eyes, respiratory system and skin.

**Inhalation:** May be corrosive to the respiratory tract.

Skin Contact: Causes severe irritation which will progress to chemical burns.

Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: None expected under normal conditions of use.

#### 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.

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

#### SECTION 5: FIRE-FIGHTING MEASURES

#### **Extinguishing Media**

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.

**Unsuitable Extinguishing Media:** Halogenated compounds. 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.

**Reactivity:** May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

#### Advice for Firefighters

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

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection. **Hazardous Combustion Products**: Sodium oxides.

**Other Information:** Do not allow run-off from fire fighting to enter drains or water courses.

#### **Reference to Other Sections**

Refer to Section 9 for flammability properties.

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

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

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray.

#### For Non-Emergency Personnel

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

**Emergency Procedures:** Evacuate unnecessary personnel.

#### For Emergency Personnel

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. Ventilate area.

#### **Environmental Precautions**

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

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

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. 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. Absorb spillage to prevent material damage. Cautiously neutralize spilled liquid. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

#### **Reference to Other Sections**

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

#### SECTION 7: HANDLING AND STORAGE

#### Precautions for Safe Handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle empty containers with care because they may still present a hazard. Do not get in eyes, on skin, or on clothing. Do not breathe vapors, mist, or spray.

Additional Hazards When Processed: May be corrosive to metals. May release corrosive vapors.

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

#### **Conditions for Safe Storage, Including Any Incompatibilities**

Technical Measures: Comply with applicable regulations.

**Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from extremely high or low temperatures and incompatible materials. Store in original container or corrosive resistant and/or lined container. **Incompatible Materials:** Metals. Oxidizers. Acids.

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

#### Specific End Use(s)

Neutralization of acids, pH control, gas scrubbing, catalyst. Used in manufacture of pulp and paper, petroleum and natural gas, soap and detergents and cellulosic. Also used in water treatment, food processing, mining and metal processing.

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

#### 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), Canadian provincial governments, or the Mexican government.

Sodium hydroxide (1310-73-2)				
Mexico	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
USA NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
USA IDLH	US IDLH (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>		
Alberta	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
British Columbia	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
Manitoba	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
New Brunswick	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
Newfoundland & Labrador	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
Nova Scotia	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
Nunavut	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
Northwest Territories	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
Ontario	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
Prince Edward Island	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
Québec	PLAFOND (mg/m³)	2 mg/m <sup>3</sup>		
Saskatchewan	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		
Yukon	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>		

#### 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.

**Personal Protective Equipment:** Gloves. Protective clothing. Protective goggles. Face shield. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Corrosion-proof clothing.

Hand Protection: Wear protective gloves.

Eye Protection: Chemical safety goggles and face shield.

Skin and Body Protection: Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

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

Other Information: When using,	, do not eat, drink or sm	ioke.
<b>SECTION 9: PHYSICAL AND CI</b>	HEMICAL PROPERTI	IES
Information on Basic Physical	and Chemical Proper	r <u>ties</u>
Physical State	:	Liquid
Appearance	:	Clear to white
Odor	:	None
Odor Threshold	:	Not available

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

рН	:	14
Evaporation Rate	:	Not available
Melting Point	:	12 °C (53.6 °F)
Freezing Point	:	Not available
Boiling Point	:	143 °C (289.4 °F)
Flash Point	:	Not applicable
Auto-ignition Temperature	:	Not applicable
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not applicable
Lower Flammable Limit	:	Not applicable
Upper Flammable Limit	:	Not applicable
Vapor Pressure	:	0.2 kPa
Relative Vapor Density at 20°C	:	Not available
Relative Density	:	Not available
Specific Gravity	:	1.531 g/cm <sup>3</sup> @ 20 °C (68 °F)
Solubility	:	Easily soluble in the following materials: cold water and hot water.
Partition Coefficient: N-Octanol/Water	:	Not available
Viscosity	:	Not available

#### SECTION 10: STABILITY AND REACTIVITY

**<u>Reactivity</u>**: May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

**<u>Chemical Stability</u>**: Stable under recommended handling and storage conditions (see section 7).

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**<u>Conditions to Avoid</u>**: Extremely high or low temperatures and incompatible materials.

Incompatible Materials: Metals. Acids. Oxidizers.

Hazardous Decomposition Products: Hydrogen.

#### SECTION 11: TOXICOLOGICAL INFORMATION

#### Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data: Not available

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

**pH:** 14

Eye Damage/Irritation: Causes serious eye damage.

**pH:** 14

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Effects After Inhalation: May be corrosive to the respiratory tract.

Symptoms/Effects After Skin Contact: Causes severe irritation which will progress to chemical burns.

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

**Symptoms/Effects After Ingestion:** May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. **Chronic Symptoms:** None expected under normal conditions of use.

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

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

LD50 and LC50 Data: Not available

ECTION 12: ECOLOGICAL INFO	RMATION	
<u>Toxicity</u>		
Ecology - General: Harmful to aquat	ic life.	
Sodium hydroxide (1310-73-2)		
LC50 Fish 1	45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])	
EC50 Daphnia 1	40 mg/l	
Persistence and Degradability		
Sodium hydroxide, 32% solution, M	embrane and Diaphragm Grade	
Persistence and Degradability Not established.		
Bioaccumulative Potential		

Sodium hydroxide, 32% solution, Membrane and Diaphragm Grade		
<b>Bioaccumulative Potential</b>	Not established.	

Mobility in Soil Not available

#### **Other Adverse Effects**

Other Information: Avoid release to the environment.

#### SECTION 13: DISPOSAL CONSIDERATIONS

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

**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**

TRANSPORTATION	DOT	TDG	IMDG	IATA
CLASSIFICATION				
Identification Number	UN1824	UN1824	UN1824	UN1824
Proper Shipping Name	SODIUM HYDROXIDE SOLUTION	SODIUM HYDROXIDE SOLUTION	SODIUM HYDROXIDE SOLUTION	SODIUM HYDROXIDE SOLUTION
Transport Hazard Class(es)	8	8	8	8
	CORROSIVE			8
Packing Group	11	11	11	11
Environmental Hazards	Marine Pollutant : No	Marine Pollutant : No	Marine Pollutant : No	Marine Pollutant: N/A
Emergency Response	ERG Number: 154	ERAP Index: Not applicable	<b>EMS:</b> F-A, S-B	ERG code (IATA): 8L
Additional Information	Not applicable	Not applicable	Not applicable	Not applicable

### SECTION 15: REGULATORY INFORMATIC

US Federal	Regulations	
	_	

Chemical Name (CAS No.)	CERCLA RQ	EPCRA 304 RQ	SARA 302 TPQ	SARA 313
Sodium hydroxide (1310-73-2)	1000 lb	Not applicable	Not applicable	No

#### SARA 311/312

Sodium hydroxide, 32% solution, Membrane and Diaphragm Grade

Immediate (acute) health hazard

#### US TSCA Flags Not present

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

#### **US State Regulations**

#### **California Proposition 65**

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Sodium hydroxide (1310-73-2)	No	No	No	No

#### State Right-To-Know Lists

#### Sodium hydroxide (1310-73-2)

U.S. - Massachusetts - Right To Know List - Yes

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

- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List Yes
- U.S. Pennsylvania RTK (Right to Know) Special Hazardous Substances No
- U.S. Pennsylvania RTK (Right to Know) List Yes

#### **Canadian Regulations**

#### Sodium hydroxide (1310-73-2)

Listed on the Canadian DSL (Domestic Substances List) Not listed on the Canadian NDSL (Non-Domestic Substances List)

#### International Inventories/Lists

Chemical Name (CAS No.)	Australia AICS	Turkey CICR	Korea ECL	EU EINECS	EU ELINCS	EU SVHC	EU NLP	Mexico INSQ
Sodium hydroxide (1310-73- 2)	Yes	Yes	Yes	Yes	No	No	No	Yes
Chemical Name (CAS No.)	China IECSC	Japan ENCS	Japan ISHL	Japan PDSCL	Japan PRTR	Philippines PICCS	New Zealand NZIOC	US TSCA
Sodium hydroxide (1310-73- 2)	Yes	Yes	No	Yes	No	Yes	Yes	Yes

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

Date of Preparation or Latest Revision : 06/24/2019

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).

#### **Revision Summary**

Section	Change	Date Changed
4	Language modification	06/24/2019
11	Language modification	06/24/2019

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

Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3	
Eye Dam. 1	Serious eye damage/eye irritation Category 1	
Met. Corr. 1	Corrosive to metals Category 1	
Skin Corr. 1A	Skin corrosion/irritation Category 1A	
H290	May be corrosive to metals	
H314	Causes severe skin burns and eye damage	
H318	Causes serious eye damage	
H402	Harmful to aquatic life	

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

<u>NFPA 704</u>		
NFPA Health Hazard	:	3
NFPA Fire Hazard	:	0
NFPA Reactivity Hazard	:	0

# 3 0

HMIS Rating	
Health	: 3
Flammability	: 0
Physical	: 0
PPE	See Section 8

#### Abbreviations and Acronyms

AICS – Australian Inventory of Chemical Substances LC50 - Median Lethal Concentration ACGIH – American Conference of Governmental Industrial Hygienists LD50 - Median Lethal Dose AIHA - American Industrial Hygiene Association LOAFL - Lowest Observed Adverse Effect Level ATE - Acute Toxicity Estimate LOEC - Lowest-observed-effect Concentration BCF - Bioconcentration factor Log Pow - Octanol/water Partition Coefficient **BEI - Biological Exposure Indices (BEI)** NFPA 704 - National Fire Protection Association - Standard System for the CAS No. - Chemical Abstracts Service number Identification of the Hazards of Materials for Emergency Response CERCLA RQ - Comprehensive Environmental Response, Compensation, and NIOSH - National Institute for Occupational Safety and Health Liability Act - Reportable Quantity NLP - Europe No Longer Polymers List CICR - Turkish Inventory and Control of Chemicals NOAEL - No-Observed Adverse Effect Level DOT – 49 CFR – US Department of Transportation – Code of Federal NOEC - No-Observed Effect Concentration Regulations Title 49 - Transportation. NZIOC - New Zealand Inventory of Chemicals EC50 - Median effective concentration **OEL - Occupational Exposure Limits** ECL - Korea Existing Chemicals List OSHA – Occupational Safety and Health Administration EINECS - European Inventory of Existing Commercial Chemical Substances PEL - Permissible Exposure Limits ELINCS - European List of Notified Chemical Substances PICCS - Philippine Inventory of Chemicals and Chemical Substances EmS - IMDG Emergency Schedule Fire & Spillage PDSCL - Japan Poisonous and Deleterious Substances Control Law ENCS - Japanese Existing and New Chemical Substances Inventory PPE – Personal Protective Equipment EPA – Environmental Protection Agency PRTR - Japan Pollutant Release and Transfer Register EPCRA 304 RQ – EPCRA 304 Extremely Hazardous Substance Emergency **REL - Recommended Exposure Limit** Planning and Community Right-to-Know-Act – Reportable Quantity SADT - Self Accelerating Decomposition Temperature ERAP Index – Emergency Response Assistance Plan Quantity Limit SARA - Superfund Amendments and Reauthorization Act ErC50 - EC50 in Terms of Reduction Growth Rate SARA 302 - Section 302, 40 CFR Part 355 ERG code (IATA) - Emergency Response Drill Code as found in the International SARA 311/312 - Sections 311 and 312, 40 CFR Part 370 Hazard Categories Civil Aviation Organization (ICAO) SARA 313 - Section 313, 40 CFR Part 372 ERG No. - Emergency Response Guide Number SRCL - Specifically Regulated Carcinogen List HCCL - Hazard Communication Carcinogen List STEL - Short Term Exposure Limit SVHC – European Candidate List of Substance of Very High Concern HMIS - Hazardous Materials Information System IARC - International Agency for Research on Cancer TDG – Transport Canada Transport of Dangerous Goods Regulations IATA - International Air Transport Association - Dangerous Goods Regulations TLM - Median Tolerance Limit IDLH - Immediately Dangerous to Life or Health TLV - Threshold Limit Value IECSC - Inventory of Existing Chemical Substances Produced or Imported in **TPQ** - Threshold Planning Quantity TSCA – United StatesToxic Substances Control Act China IMDG - International Maritime Dangerous Goods Code TWA - Time Weighted Average INSQ - Mexican National Inventory of Chemical Substances WEEL - Workplace Environmental Exposure Levels ISHL - Japan Industrial Safety and Health Law

Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA'S "Right to Know" (29 CFR 1910.1200) and Canada's WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and Chemtrade and its affiliates assume no responsibility. Chemtrade is a member of the CIAC (Chemistry Industry Association of Canada) and adheres to the codes and principles of Responsible Care<sup>M</sup>.

Safety Data Sheet According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.



Chemtrade NA GHS SDS 2015