

# **ScavGuard**<sup>™</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. Date of Issue: 05/02/2015 Revision Date: 05/08/2018 Version: 3.0

**SECTION 1: IDENTIFICATION** 

**Product Identifier** Product Form: Mixture Product Name: ScavGuard<sup>™</sup> Synonyms: Sodium bisulfite, SBS

#### Intended Use of the Product

For the manufacture of oxygen scavenging and dechlorination, bleaching agent, and papermaking.

## 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: CANUTEC +1-613-996-6666 / 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 Classification of the Substance or Mixture GHS Classification** Met. Corr. 1 H290 Skin Irrit. 2 H315 Eye Irrit. 2A H319 STOT SE 3 H335 Aquatic Acute 3 H402 Full text of hazard classes and H-statements : see section 16 Label Elements **GHS Labeling Hazard Pictograms**

	GHS05 GH	507	
Signal Word	: Warning	107	
Hazard Statements	: H290 - May be corrosi	ve to metals.	
	H315 - Causes skin irri	tation.	
	H319 - Causes serious	eye irritation.	
	H335 - May cause res	piratory irritation.	
	H402 - Harmful to aqu	atic life.	
Precautionary Statements	: P261 - Avoid breathin	g vapors, mist, or spray.	
	P264 - Wash hands, fo	rearms, and other exposed areas thoro	ughly after handling.
	P273 - Avoid release t	o the environment.	
	P280 - Wear protectiv	e gloves, protective clothing, and eye pr	otection.
	P302+P352 - IF ON SK	N: Wash with plenty of water.	
	P304+P340 - IF INHAL	ED: Remove person to fresh air and keep	p comfortable for
	breathing.		
	P305+P351+P338 - IF	N EYES: Rinse cautiously with water for	several minutes. Remov
05/08/2018	EN (English US)	SDS#: CHE-1070S	

ve

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.

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

P312 - Call a POISON CENTER or doctor if you feel unwell.

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

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

P337+P313 - If eye irritation persists: Get medical advice/attention.

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

P390 - Absorb spillage to prevent material damage.

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

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**

Contact with acids liberates toxic gas. 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		GHS Ingredient Classification
Water	(CAS No) 7732-18-5	40 - 70	Not classified
Sodium bisulfite**	(CAS No) 7631-90-5	30 - 60+	Acute Tox. 4 (Oral), H302
			Aquatic Acute 3, H402

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%).

\*\*Dry sodium bisulfite is not known to product significant irritation; however, in solution causes skin, eye, and respiratory irritation in addition to metal corrosion.

<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. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

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

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

## Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation.

**Inhalation:** Irritation of the respiratory tract and the other mucous membranes. May cause an allergic reaction in sensitive individuals.

**Skin Contact:** Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic reaction in sensitive individuals.

Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Ingestion: Ingestion may cause adverse effects.

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.

# **ScavGuard**<sup>™</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.

## SECTION 5: FIRE-FIGHTING MEASURES

## **Extinguishing Media**

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

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: Contact with metallic substances may release flammable hydrogen gas.

Reactivity: May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. Under heated conditions or on contact with acids will produce the toxic gas sulfur dioxide.

## 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. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles. Cover pooling liquid with foam. Containers can build pressure if exposed to radiant heat; cool adjacent containers with flooding quantities of water until well after the fire is out. Withdraw immediately from the area if there is a rising sound from a venting safety device or discoloration of vessels, tanks, or pipelines. Be aware that burning liquid will float on water. Notify appropriate authorities if liquid enter sewers or waterways.

Hazardous Combustion Products: Sulfur 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: Avoid breathing (vapor, mist, spray). Avoid all contact with skin, eyes, or clothing.

#### 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.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Absorb spillage to prevent material damage.

## **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. Avoid breathing vapors, mist, spray. Avoid contact with skin, eyes and clothing. Avoid contact with eyes, skin and clothing.

Additional Hazards When Processed: May be corrosive to metals.

**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 corrosive resistant container with a resistant inner liner.

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.

Incompatible Materials: Acids. Metals. Oxidizers. Combustible materials.

# Specific End Use(s)

For the manufacture of oxygen scavenging and dechlorination, bleaching agent, and papermaking.

# **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 bisulfite (7631-90-5)	Sodium bisulfite (7631-90-5)				
USA ACGIH	ACGIH TWA (mg/m³)	5 mg/m³			
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen			
USA NIOSH	NIOSH REL (TWA) (mg/m³)	5 mg/m <sup>3</sup>			
Alberta	OEL TWA (mg/m³)	5 mg/m <sup>3</sup>			
British Columbia	OEL TWA (mg/m³)	5 mg/m³			
Manitoba	OEL TWA (mg/m³)	5 mg/m <sup>3</sup>			
New Brunswick	OEL TWA (mg/m³)	5 mg/m <sup>3</sup>			
Newfoundland & Labrador	OEL TWA (mg/m³)	5 mg/m <sup>3</sup>			
Nova Scotia	OEL TWA (mg/m³)	5 mg/m <sup>3</sup>			
Nunavut	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>			
Nunavut	OEL TWA (mg/m³)	5 mg/m <sup>3</sup>			
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>			
Northwest Territories	OEL TWA (mg/m³)	5 mg/m <sup>3</sup>			
Ontario	OEL TWA (mg/m³)	5 mg/m <sup>3</sup>			
Prince Edward Island	OEL TWA (mg/m³)	5 mg/m <sup>3</sup>			
Québec	VEMP (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>			
Saskatchewan	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>			
Saskatchewan	OEL TWA (mg/m³)	5 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.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye Protection: Chemical safety goggles.

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.

SECTION 9: PHYSICAL AND CH	CTION 9: PHYSICAL AND CHEMICAL PROPERTIES					
Information on Basic Physical and Chemical Properties						
Physical State	:	Liquid				
Appearance	:	Pale to deep pink.				
Odor	:	Pungent. Sulfurous.				
Odor Threshold	:	Not available				
рН	:	3.8 - 5.2				

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.

Evaporation Rate	: Not available
Melting Point	: Not applicable
Freezing Point	: 6 °C (42.8 °F)
Boiling Point	: 104 °C (219.2 °F)
Flash Point	: Not available
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	: 10.4 kPa (78 mm Hg) @ 20°C (68 °F)
Relative Vapor Density at 20°C	: Not available
Relative Density	: Not available
Specific Gravity	: 1.33
Solubility	: Water: Miscible in all proportions in 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. Under heated conditions or on contact with acids will produce the toxic gas sulfur dioxide.

**<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: Acids. Metals. Oxidizers. Combustible materials.

Hazardous Decomposition Products: None expected under normal conditions of use.

# 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 skin irritation. pH: 3.8 - 5.2 Eye Damage/Irritation: Causes serious eye irritation. pH: 3.8 - 5.2 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): May cause respiratory irritation.

Aspiration Hazard: Not classified

**Symptoms/Effects After Inhalation:** Irritation of the respiratory tract and the other mucous membranes. May cause an allergic reaction in sensitive individuals.

**Symptoms/Effects After Skin Contact:** Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic reaction in sensitive individuals.

Symptoms/Effects After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/Effects After Ingestion: Ingestion may cause adverse effects.

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

ccording to U.S. Federal Register / Vol. 7	7, No. 58 / Monday, March 26, 2012 / R	Rules And Regulations and according to	Canada's Hazardous Products Regula	tion, February 11, 2015.
LD50 and LC50 Data:				
Water (7732-18-5)				
LD50 Oral Rat		> 90000 mg/kg		
Sodium bisulfite (7631-90-	-5)			
LD50 Oral Rat		1310 mg/kg		
LD50 Dermal Rat		> 2000 mg/kg		
LC50 Inhalation Rat		>= 5.5 mg/l/4h		
Sodium bisulfite (7631-90-	-5)			
IARC Group		3		
ECTION 12: ECOLOGICA	AL INFORMATION			
Toxicity				
Ecology - General: Harmful	l to aquatic life.			
Sodium bisulfite (7631-90-				
EC50 Daphnia 1		xposure time: 48 h - Species	: Daphnia magna)	
Persistence and Degrada	· · · ·	• •		
Sodium Bisulfite Solution	<u>onicy</u>			
Persistence and Degradab	ility Not establis	ihed.		
Bioaccumulative Potentia	- · ·			
Sodium Bisulfite Solution	<u>1</u>			
Bioaccumulative Potential	Not establis	shed		
Mobility in Soil Not availa				
Other Adverse Effects	ibie			
	release to the environment.			
ECTION 13: DISPOSAL (				
Waste Disposal Recommen		s/container in accordance y	with local regional nation	al territorial provinci:
and international regulation	-		with local, regional, nation	
Additional Information: Cor		ous when empty. Continue t	o observe all precautions.	
Ecology - Waste Materials:	-		-	
sewers and waterways.				
ECTION 14: TRANSPOR	T INFORMATION			
The shipping description(s) s	stated herein were prepared	d in accordance with certair	assumptions at the time	the SDS was authored,
and can vary based on a nur	nber of variables that may c	or may not have been know	n at the time the SDS was	issued.
TRANSPORTATION	DOT	TDG	IMDG	ΙΑΤΑ
CLASSIFICATION				
Identification Number	UN2693	UN2693	UN2693	UN2693
Proper Shipping Name	BISULFITES, AQUEOUS	BISULPHITES, AQUEOUS	BISULPHITES,	BISULPHITES,
	SOLUTIONS, N.O.S.	SOLUTION, N.O.S.	AQUEOUS SOLUTION,	AQUEOUS
Transport Hazard	8	8	N.O.S. 8	SOLUTION, N.O.S.
Class(es)	J	U	0	0
	*	8	8	8
Packing Group				
Environmental Hazards	Marine Pollutant : No	Marine Pollutant : No	Marine Pollutant : No	Marine Pollutant:
				N/A
Emergency Response	ERG Number: 154	ERAP Index: Not	<b>EMS:</b> F-A, S-B	ERG code (IATA):
•		applicable		8L
Additional Information	Not applicable	Not applicable	Not applicable	Not applicable

**Additional Information** 

Not applicable

Not applicable

Not applicable

Not applicable

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 15: REGULATORY INFORMATION

#### **US Federal Regulations**

Chemical Name (CAS No.)	CERCLA RQ	EPCRA 304 RQ	SARA 302 TPQ	SARA 313
Sodium bisulfite (7631-90-5)	5000 lb	Not applicable	Not applicable	No

#### SARA 311/312

Sodium Bisulfite Solution

Immediate (acute) health hazard

#### US TSCA Flags Not present

#### **US State Regulations**

#### **California Proposition 65**

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Sodium bisulfite (7631-90-5)	No	No	No	No

#### State Right-To-Know Lists

Sodium bisulfite (7631-90-5)

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 bisulfite (7631-90-5)

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	Turkey	Korea	EU	EU	EU	EU	Mexico
	AICS	CICR	ECL	EINECS	ELINCS	SVHC	NLP	INSQ
Sodium bisulfite (7631-90-5)	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 bisulfite (7631-90-5)	Yes	Yes	No	No	No	Yes	Yes	Yes

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

**Revision Date** 

: 05/08/2018

**Revision Summary** 

Section	Change	Date Changed
2	Classification modified	05/08/2018
3	Classification modified, HPR trade secret statement	05/08/2018
4	Language modified	05/08/2018
5	Language modified	05/08/2018
6	Language modified	05/08/2018
7	Language modified	05/08/2018
8	Language modified	05/08/2018
10	Language modified	05/08/2018
11	Data modified	05/08/2018
12	Language modified	05/08/2018
13	Language modified	05/08/2018
15	Language modified	05/08/2018

# ScavGuard<sup>™</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.

16	Data modified		05/08/2018
<b>Other Information</b>		: This document has been prepared in accordance with the	SDS requirements of the OSHA
		Hazard Communication Standard 29 CFR 1910.1200 and C	anada's Hazardous Products
		Regulations (HPR).	

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

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4		
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3		
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A		
Met. Corr. 1	Corrosive to metals Category 1		
Skin Irrit. 2	Skin corrosion/irritation Category 2		
STOT SE 3	Specific target organ toxicity (single exposure) Category 3		
H290	May be corrosive to metals		
H302	Harmful if swallowed		
H315	Causes skin irritation		
H319	Causes serious eye irritation		
H335	May cause respiratory irritation		
H402	Harmful to aquatic life		

#### **NFPA 704**

NFPA Health Hazard	: 2
NFPA Fire Hazard	: 0
NFPA Reactivity Hazard	: 0
HMIS Rating	
Health	: 2
Flammability	: 0
Physical	: 0
PPE	See Section

## **Abbreviations and Acronyms**

AICS - Australian Inventory of Chemical Substances ISHL - Japan Industrial Safety and Health Law ACGIH – American Conference of Governmental Industrial Hygienists LC50 - Median Lethal Concentration AIHA – American Industrial Hygiene Association LD50 - Median Lethal Dose ATE - Acute Toxicity Estimate LOAEL - Lowest Observed Adverse Effect Level LOEC - Lowest-observed-effect Concentration BCF - Bioconcentration factor **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 NOAEL - No-Observed Adverse Effect Level CICR - Turkish Inventory and Control of Chemicals 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 SARA 302 - Section 302, 40 CFR Part 355 ErC50 - EC50 in Terms of Reduction Growth Rate SARA 311/312 - Sections 311 and 312, 40 CFR Part 370 Hazard Categories ERG code (IATA) - Emergency Response Drill Code as found in the International SARA 313 - Section 313, 40 CFR Part 372 Civil Aviation Organization (ICAO) ERG No. - Emergency Response Guide Number SRCL - Specifically Regulated Carcinogen List STEL - Short Term Exposure Limit HCCL - Hazard Communication Carcinogen List HMIS - Hazardous Materials Information System SVHC - European Candidate List of Substance of Very High Concern 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

8

#### 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.

IDLH - Immediately Dangerous to Life or Health IECSC - Inventory of Existing Chemical Substances Produced or Imported in

China

IMDG - International Maritime Dangerous Goods Code

INSQ - Mexican National Inventory of Chemical Substances

TLV - Threshold Limit Value TPQ - Threshold Planning Quantity TSCA – United StatesToxic Substances Control Act TWA - Time Weighted Average WEEL - Workplace Environmental Exposure Levels

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>.



Chemtrade NA GHS SDS 2015