

MATERIAL SAFETY DATA SHEET

SECTION I – PRODUCT & COMPANY IDENTIFICATION

Product Name: Norsol Mist Control
Product Use: Mist suppressant
Manufacturer: Contact supplier
Supplier: Northern Technical Solutions Inc.
Address: 7040 Wellington Rd 124 South
 Guelph, ON N1H 6J3
Telephone Number: 519-766-9899
Emergency Telephone Number: 519-766-9899

SECTION 2 – HAZARDOUS INGREDIENTS

Chemical Name	CAS#	Wt%	ACGIH-TLVs 8 hr TWA	LC ₅₀ (4 hr, Rat)	LD ₅₀ (Dermal, Rabbit)	LD ₅₀ (Oral, Rat)
Acrylate adduct	trade secret	1 - 5	Not available	Not available	Not available	Not available
Fluoroalkyl sulfonates	mixture	0.1-0.5	0.5 ppm (F)	Not available	Not available	Not available

SECTION 3 – HAZARDS

Emergency Overview: CAUTION. IRRITANT. MAY IRRITATE EYES AND SKIN. HARMFUL IF ABSORBED THROUGH SKIN, INHALED OR SWALLOWED. MAY CAUSE CHRONIC EFFECTS.

WHMIS: D2B – Other Toxic Effects



HMIS & NFPA:

HEALTH	* 2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PPE	C



Legend	
Extreme Danger	4
Serious	3
Moderate	2
Slight	1
Minimal	0
Chronic	*

TDG/DOT: NOT REGULATED

Target Organs: Eyes, skin, liver, respiratory system.

Notice: Information for this MSDS was obtained from sources considered accurate and reliable. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. As conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained in accordance with all applicable occupational health and safety requirements. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this MSDS.

SECTION 4 - FIRST AID MEASURES

Eyes: Immediately flush eye(s) with lukewarm, gently flowing water continuously for at least 20 minutes, while holding the eyelid(s) open. Obtain medical attention immediately.

Skin: Remove contaminated clothing and wash skin with soap and plenty of water for at least 20 minutes. Obtain medical attention if symptoms persist.

Inhalation: Move victim to fresh air. Obtain medical attention immediately.

Ingestion: Obtain medical attention immediately. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point (°C/°F - TCC): Not available.
available.

LEL: Not available.

UEL: Not

Hazardous Combustion Products: Hydrogen fluoride, oxides of carbon, oxides of nitrogen, oxides of sulfur.

Autoignition Temperature (°C/°F): Not available.

Extinguishing Media: Dry chemical, carbon dioxide.

Fire Fighting Procedures: Fire-fighters should wear full protective gear with self-contained breathing apparatus (SCBA).

Fire and Explosion Hazards: None known.

Sensitivity to Mechanical Impact: Not available.

Sensitivity to Static Discharge: Not available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Before attempting clean-up, refer to Section 8 personal protection. Contact emergency services and supplier for advice.

Spill Response: Evacuate unprotected and untrained personnel from the area. The spill should be handled by qualified personnel only. Ventilate the area. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Cover spill with a non-combustible material such as vermiculite or other commercially available inorganic absorbent. Cover spill with absorbent until it appears dry. Collect the spilled material and clean up the area. Place waste materials in a closed container suitable for disposal. Refer to Section 13 for disposal considerations.

SECTION 7 – HANDLING & STORAGE

Handling: For industrial or professional use only. As required by employer code. Avoid contact with incompatible materials. Do not get in eyes or on skin or clothing. Do not breathe mists or fumes. Use only in a well-ventilated area or with respiratory protection. Do not swallow. Do not eat, drink, or smoke in work areas. Remove contaminated clothing and discard or wash before reuse. Maintain good industrial hygiene practices.

Storage: As required by employer code. Keep container closed when not in use. Store in a cool, dry, well-ventilated area. Store away from incompatible materials. Maintain good industrial hygiene practices.

Notice: Information for this MSDS was obtained from sources considered accurate and reliable. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. As conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained in accordance with all applicable occupational health and safety requirements. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this MSDS.

SECTION 8 – PERSONAL PROTECTIVE EQUIPMENT & EXPOSURE CONTROLS

Eye/Face Protection: As required by employer code. Avoid contact. Wear chemical safety goggles.

Hand Protection: As required by employer code. Avoid contact. Wear chemical resistant gloves. Select and use gloves based on the results of a workplace exposure assessment. Consult ACGIH or your glove manufacturer for selection of appropriate compatible materials.

Skin Protection: As required by employer code. Avoid contact. Wear appropriate equipment as necessary to prevent exposure. Select and use protective equipment based on the results of a workplace exposure assessment. Consult ACGIH or your equipment manufacturer for selection of appropriate compatible materials.

Respiratory Protection: As required by employer code. Do not breathe fumes. Wear appropriate respiratory protection if ventilation is not adequate. Select and use NIOSH approved respiratory equipment based on the results of a workplace exposure assessment.

Ingestion: Do not swallow. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

Ventilation: Use only in a well-ventilated area or with respiratory protection.

Engineering Controls: Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below exposure limits. Have a safety shower and eye-wash fountain readily available in the immediate work area.



EXPOSURE LIMITS:

Chemical Name	ACGIH TLV – 15 min STEL	ACGIH TLV – 8 hr TWA	OSHA PEL - 8 hr TWA
Acrylate adduct	Not available	Not available	Not available
Fluoroalkyl sulfonates	6 ppm (HF)	0.5 ppm (F)	3 ppm (HF)

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

Physical State: Liquid

pH (100%): 4.4

Vapour Density (Air = 1): Not available

Volatiles (Wt%): Not available

Viscosity: Not available

Solubility in Water: Moderate

Vapour Pressure: Not available

Boiling Point (°C/°F): ~100/212

Odour Threshold (ppm): Not available

Appearance; Odour: Brown, amine

Flash Point (°C/°F - TCC): Not available

Autoignition Temperature (°C/°F): Not available

Evaporation Rate (Ether =1): Not available

Upper Explosive Limit (UEL): Not available

Lower Explosive Limit (LEL): Not available

Freezing/Melting Point (°C/°F): Not available

Specific Gravity (water =1): 1.15-1.25

Coefficient of water/oil: Not available

SECTION 10 – STABILITY & REACTIVITY

Chemical stability: Stable. Hazardous polymerization will not occur.

Incompatible Materials: Oxidizing agents, strong acids, strong bases.

Conditions to Avoid: None known.

Hazardous Decomposition Products: Hydrogen fluoride, oxides of carbon, oxides of nitrogen, oxides of sulfur.

Notice: Information for this MSDS was obtained from sources considered accurate and reliable. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. As conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained in accordance with all applicable occupational health and safety requirements. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this MSDS.

SECTION 11 - TOXICOLOGICAL INFORMATION

Routes of Entry: Eyes, Skin, Inhalation, Absorption, Ingestion

HEALTH EFFECTS FROM ACUTE EXPOSURE:

Eyes: May cause irritation. Symptoms may include redness, swelling, pain, tearing, and blurred vision.

Skin: May cause irritation. Symptoms may include localized redness, swelling, itching and pain.

Inhalation: May cause respiratory tract irritation. Symptoms may include cough

Ingestion: May cause irritation of the gastrointestinal tract. Symptoms may include pain, nausea, vomiting, and diarrhea.

ACUTE TOXICITY DATA:

<u>Chemical & CAS#</u>	<u>RTECS #</u>	<u>Rat - Inhalation 4 hours LC₅₀</u>	<u>Rabbit - Dermal LD₅₀</u>	<u>Rat - Ingestion LD₅₀</u>
Acrylate adduct (trade secret)	Not available	Not available	Not available	Not available
Fluoroalkyl sulfonates (mixture)	Not available	Not available	Not available	Not available

HEALTH EFFECTS FROM CHRONIC EXPOSURE: Prolonged or repeated exposure to fluoroalkyl sulfonates may cause damage to the liver.

Aggravation of Pre-existing Conditions: Insufficient data available.

Skin: Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Irritancy: Hazardous by WHMIS/OSHA criteria.

Sensitization: Insufficient data available.

Reproductive Effects: Insufficient data available.

Teratogenicity: Insufficient data available.

Mutagenicity: Insufficient data available.

Carcinogenicity: Insufficient data available.

Toxicologically Synergistic Materials: No data available.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Effects: May contain a substance that may be entering the environment in a quantity or concentration or under conditions that may have an immediate or long-term harmful effect on the environment or its biological diversity (perfluoroalkyl compounds).

Ecotoxicity data:

<u>Results for a similar product:</u>	
	Fathead minnow - 96 hour LC50: 800 mg/L
	Green algae- 96 hour EC50: 150 mg/L
	Daphnia magna - 48 hour EC50: 675 mg/L

Ecofate Data: May contain a substance considered to be persistent and bioaccumulative

Notice: Information for this MSDS was obtained from sources considered accurate and reliable. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. As conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained in accordance with all applicable occupational health and safety requirements. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this MSDS.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal: Consult applicable regulations and authorities prior to disposal.

SECTION 14 - TRANSPORTATION

Transportation of Dangerous Goods (TDG): NOT REGULATED

US Department of Transportation (DOT): NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

CANADA: Insufficient data available. Review applicable regulatory requirements and consult authorities for additional information.

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

WHMIS Classification: D2B

CEPA (1999) - Schedule 1 List of Toxic Substances & Virtual Elimination List: May contain a substance (perfluoroalkyl sulfonates) that may be entering the environment in a quantity or concentration or under conditions that have or may have an immediate or long-term harmful effect on the environment or its biological diversity. Review applicable regulatory requirements and consult authorities for additional information.

UNITED STATES: Insufficient data available. Significant New Use Rules (SNURs) under the Toxic Substances Control Act (TSCA) for perfluoroalkyl sulfonates may apply. Review applicable regulatory requirements and consult authorities for additional information.

OSHA: This product is considered Hazardous as defined by the OSHA Hazard Communication Standard Code of Federal Regulations, 29 CFR 1910.1200.

Title III SARA/EPCRA Sections 311 & 312 - Hazard Categories: Insufficient data available.

Title III SARA/EPCRA Section 313 - Toxic Chemicals – Toxic Release Inventory: Insufficient data available.

Title III SARA/EPCRA Sections 302 & 304 - Extremely Hazardous Substances - Threshold Planning Quantities: Insufficient data available.

CERCLA - Hazardous Substances – Reportable Quantities: Insufficient data available.

RCRA: Consult applicable regulations and authorities prior to disposal.

Clean Air Act (CAA): Insufficient data available.

Clean Water Act (CWA): Insufficient data available.

SECTION 16 - OTHER INFORMATION

MSDS Prepared by: Technical Service. Contact supplier for information.

Date: July 1, 2013

Notice: Information for this MSDS was obtained from sources considered accurate and reliable. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. As conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained in accordance with all applicable occupational health and safety requirements. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this MSDS.