

## Safety data sheet

According to 1907/2006/EC (REACH), 1272/2008/EC (CLP),  
and US GHS








Printing date: 08.06.2018

Revision: 08.06.2018

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>1.1</b>	<b>Product Identifier</b>	<b>Cryolite UF, K, RTNC, Synthetic Powder</b>
	<b>GHS Product Identifier</b>	<b>Cryolite UF, K, RTNC, Synthetic Powder</b>
	<b>Chemical Name</b>	<b>Trisodium hexafluoraluminate</b>
	<b>Trade Name</b>	See Product Identifier
	<b>CAS No.</b>	13775-53-6
	<b>EINECS No.</b>	237-410-6
	<b>Index Number</b>	009-016-00-2
	<b>REACH Registration No.</b>	Not available
<b>1.2</b>	<b>Relevant Identified Uses Of The Substance Or Mixture And Uses Advised Against</b>	
	Application of the substance / the mixture	Industrial uses.
<b>1.3</b>	<b>Details Of The Supplier Of The Safety Data Sheet</b>	
	Company Identification	<b>Washington Mills Electro Minerals Corp.</b>
	Address	1801 Buffalo Avenue Niagara Falls, NY 14302
	Telephone	(716) 278-6600
	E-Mail (Competent Person)	<a href="mailto:info@washingtomills.com">info@washingtomills.com</a>
<b>1.4</b>	<b>Emergency Telephone Number – ChemTel</b>	
	<b>(800)255-3924 (USA/Canada), 813-248-0585 (International)</b>	

### SECTION 2: HAZARDS IDENTIFICATION

<b>2.1</b>	<b>Classification Of The Substance Or Mixture</b>								
<b>2.1.1</b>	<b>Classification according to Regulation (EC) No. 1272/2008 (CLP)</b>								
	The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H411.								
	<b>Hazard Pictogram(s)</b>		Health Hazard		Environment				
	STOT RE 1	H372	Causes damage to the lung through prolonged or repeated exposure. Route of exposure: Oral, Inhalative.						
	Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.						
	Acute Tox. 4	H332	Harmful if inhaled.						
	Lact.	H362	May cause harm to breast-fed children.						
<b>2.2</b>	<b>Label Elements</b>								
<b>2.2.1</b>	<b>Label Elements According to Regulation (EC) No. 1272/2008 (CLP)</b>								
	The substance is classified and labelled according to the CLP regulation.								
	The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H411.								
	<b>Hazard Pictogram(s)</b>		GHS07		GHS08		GHS09	<b>Signal Word(s)</b>	<b>DANGER</b>
			This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS).						
	<b>Hazard-determining components of labelling:</b>		trisodium hexafluoroaluminate						
	<b>Hazard Statement(s)</b>	H332 Harmful if inhaled. H362 May cause harm to breast-fed children. H372 Causes damage to the lung through prolonged or repeated exposure. Route of exposure: Oral, Inhalative. H411 Toxic to aquatic life with long lasting effects.							




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<b>Precautionary Statement(s)</b>	P263 Avoid contact during pregnancy/while nursing. P261 Avoid breathing dust. P273 Avoid release to the environment. P201 Obtain special instructions before use. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P314 Get medical advice/attention if you feel unwell. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.	
<b>Hazard description:</b>		
<b>WHMIS-symbols:</b>		D2A – Very toxic material causing other toxic effects
<b>NFPA ratings (scale 0 - 4)</b>		Health = 2 Fire = 0 Reactivity = 0
<b>HMIS-ratings (scale 0 - 4)</b>		Health = *2 Fire = 0 Reactivity = 0
<b>HMIS Long Term Health Hazard Substances</b>	Substance is not listed.	
<b>2.3 Other Hazards</b>		
<b>Results of PBT and vPvB assessment</b>	<b>PBT:</b> Not applicable.	
	<b>vPvB:</b> Not applicable.	

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

##### CAS No. Description

13775-53-6 trisodium hexafluoroaluminate

##### Identification number(s)

EC number: 237-410-6

Index number: 009-016-00-2

### SECTION 4: FIRST AID MEASURES

#### 4.1 Description of First Aid Measures

<b>General Information:</b>	Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Take affected persons out into the fresh air.
<b>After Inhalation:</b>	Supply fresh air; consult doctor in case of complaints. Provide oxygen treatment if affected person has difficulty breathing. In case of irregular breathing or respiratory arrest provide artificial respiration.
<b>After Skin Contact:</b>	Immediately remove any clothing soiled by the product. Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.
<b>After Eye Contact:</b>	Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
<b>After Swallowing:</b>	Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

#### 4.2 Most Important Symptoms And Effects, Both Acute And Delayed

Breathing difficulty, coughing, dizziness, gastric or intestinal disorders, nausea. May cause respiratory irritation.

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<b>Hazards</b>	Danger of impaired breathing. Danger of disturbed cardiac rhythm. May cause harm to breast-fed children. Danger of serious damage to health by prolonged exposure.
<b>4.3 Indication Of The Immediate Medical Attention And Special Treatment Needed</b>	Contains fluoridated material. Consult literature for specific antidotes. Medical supervision for at least 48 hours. If necessary oxygen respiration treatment. In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.

### SECTION 5: FIRE-FIGHTING MEASURES

<b>5.1 Extinguishing Media</b>	
Suitable Extinguishing Media	Use fire extinguishing methods suitable to surrounding conditions.
Unsuitable Extinguishing Media	Water with full jet.
<b>5.2 Special Hazards Arising From The Substance Or Mixture</b>	During heating or in case of fire poisonous gases are produced.
<b>5.3 Advice for Fire-Fighters</b>	Wear self-contained respiratory protective device. Wear fully protective suit.
<b>Additional Information</b>	Evacuate area and fight fire from the upwind side. Cool endangered receptacles with water spray.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>6.1 Personal Precautions, Protective Equipment And Emergency Procedures</b>	Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment. Keep unprotected persons away. Avoid formation of dust.
<b>6.2 Environmental Precautions</b>	Do not allow to enter sewers/ surface or ground water. Inform respective authorities in case of seepage into water course or sewage system.
<b>6.3 Methods And Material For Containment And Cleaning Up</b>	Pick up mechanically. Send for recovery or disposal in suitable receptacles. Dispose contaminated material as waste according to item 13.
<b>6.4 Reference To Other Sections</b>	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

### SECTION 7: HANDLING AND STORAGE

<b>7.1 Precautions For Safe Handling</b>	Prevent formation of dust. Any unavoidable deposit of dust must be regularly removed. Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water. Use only in well ventilated areas.
<b>Information About Fire – and explosion protection</b>	The product is not flammable. Keep respiratory protective device available.
<b>7.2 Conditions For Safe Storage, Including Any Incompatibilities: Requirements to be Met by Storerooms and Receptacles: Information About Storage in One Common Storage Facility: Further information about storage conditions:</b>	Provide ventilation for receptacles. Store in a cool location.  Store away from foodstuffs. Do not store together with acids. Protect from humidity and water.  Store in cool, dry conditions in well sealed receptacles.
<b>7.3 Specific End Use(s)</b>	No further relevant information available.

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## Cryolite UF, K, RYNC, Synthetic Powder (See Page 1)

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Additional information about design of technical facilities:** No further data; see item 7.

#### 8.1 Control Parameters

**Ingredients with limit values that require monitoring at the workplace:**

trisodium hexafluoroaluminate	13775-53-6	PEL (USA)	Long-term value: 2,5 (as Fluoride) mg/m <sup>3</sup>
		TLV (USA)	Long-term value: 2,5 (as Fluoride) mg/m <sup>3</sup>



**DNELs** No further relevant information available.

**PNECs** No further relevant information available.

**Additional information:** The lists valid during the making were used as basis.

#### 8.2 Exposure Controls

##### 8.2.2 Personal Protective Equipment:

	<b>General protective and hygienic measures:</b>	Pregnant women should strictly avoid inhalation or skin contact. The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Do not inhale dust / smoke / mist. Avoid contact with the eyes and skin. Wash hands before breaks and at the end of work.
	<b>Respiratory Protection</b>	Use suitable respiratory protective device in case of insufficient ventilation. Use suitable respiratory protective device when high concentrations are present. For spills, respiratory protection may be advisable.
	<b>Eye Protection</b>	Wear safety glasses.
	<b>Protection of Hands</b>	Wear protective gloves.
	<b>Body Protection</b>	Protective work clothing.
	<b>Limitation and supervision of exposure into the environment</b>	No further relevant information available.
	<b>Risk Management Measures</b>	See Section 7 for additional information.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information On Basic Physical And Chemical Properties

Appearance	Powder	Color	White
Odor	Odourless	Odor Threshold (ppm)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available	Boiling Point/Boiling Range (°C)	Not available
Flash Point (°C)	No Data	Explosive Limit Ranges	Not available
Auto Ignition Temperature (°C)	Not available	Decomposition Temperature (°C)	Not available
Explosive Properties	None	Oxidizing Properties	Not available
Flammability (Solid, Gas)	Not available	Ph (Value)	Not available
Evaporation Rate	N/A	Vapor Pressure (mm Hg)	Not available
Vapor Density (Air=1)	N/A	Density (g/ml)	2,75 g/cm <sup>3</sup>
Solubility (Water)	Insoluble	Solubility (Other)	Not available
Partition Coefficient (N-Octanol/Water)	Not available	Viscosity (mPa.s)	Not available

#### 9.2 Other Information

Volatile Organic Chemical (VOC) Content – Not Available.

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### SECTION 10: STABILITY AND REACTIVITY

<b>10.1</b>	<b>Reactivity</b>	
<b>10.2</b>	<b>Chemical Stability</b>	
	<b>Thermal Decomposition / conditions to be avoided:</b>	No decomposition if used according to specifications.
<b>10.3</b>	<b>Possibility of Hazardous Reactions</b>	Toxic fumes may be released if heated above the decomposition point. Reacts with strong mineral acids forming hydrogen fluoride. Reacts with strong oxidising agents. Reacts with strong alkali.
<b>10.4</b>	<b>Conditions To Avoid</b>	Moisture. Store away from oxidising agents.
<b>10.5</b>	<b>Incompatible Materials</b>	Contact with acids liberates toxic gas.
<b>10.6</b>	<b>Hazardous Decomposition Product(s)</b>	Hydrogen fluoride Toxic metal oxide smoke

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on Toxicological Effects

<b>Acute toxicity:</b>	
<b>Primary Irritant Effect:</b>	
<b>On the skin:</b>	Slight irritant effect on skin and mucous membranes.
<b>On the eye:</b>	Slight irritant effect on eyes.
<b>Sensitisation:</b>	No sensitizing effects known.
<b>Additional toxicological information:</b>	The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Harmful Toxic and/or corrosive effects may be delayed up to 48 hours. May cause harm to breastfed babies. Harmful if inhaled.
<b>Acute effects (acute toxicity, irritation, and corrosivity):</b>	
<b>Repeated dose toxicity:</b>	May cause damage to organs through prolonged or repeated exposure.
<b>CMR effects (carcinogenity, mutagenicity, and toxicity for reproduction):</b>	Lact.

### SECTION 12: ECOLOGICAL INFORMATION

<b>12.1</b>	<b>Toxicity</b>	
	<b>Aquatic toxicity:</b>	Toxic for aquatic organisms.
<b>12.2</b>	<b>Persistence and Degradability</b>	Inorganic product, is not eliminable from water by means of biological cleaning processes.
<b>12.3</b>	<b>Bioaccumulative Potential</b>	No further relevant information available.
<b>12.4</b>	<b>Mobility in Soil</b>	No further relevant information available.
	<b>Ecotoxicological effects:</b>	
	<b>Remark:</b>	Toxic for fish
	<b>Additional ecological information:</b>	
	<b>General notes:</b>	Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water. Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms. Due to available data on eliminability/decomposition and bioaccumulation

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## Cryolite UF, K, RYNC, Synthetic Powder (See Page 1)

<p><b>12.5 Results of PBT and vPvB Assessment</b></p> <p><b>12.6 Other Adverse Effects</b></p>	<p>potential prolonged term damage of the environment cannot be excluded.</p> <p><b>PBT:</b> Not applicable.</p> <p><b>vPvB:</b> Not applicable.</p> <p>No further relevant information available.</p>
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### SECTION 13: DISPOSAL CONSIDERATIONS

<p><b>13.1 Waste Treatment Methods Recommendation</b></p> <p><b>Uncleaned Packaging: Recommendation: Recommended cleansing agents:</b></p>	<p>Must not be disposed together with household garbage. Do not allow product to reach sewage system. Contact waste processors for recycling information. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.</p> <p>Disposal must be made according to official regulations. Water, if necessary together with cleansing agents.</p>
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### SECTION 14: TRANSPORT INFORMATION

Land Transport (ADR/RID) (c)(d)		Land Transport (Within USA) (b)(d)	
UN Number	UN3077	UN Number	UN3077
Proper Shipping Name	3077 Environmentally Hazardous Substance, Solid, n.o.s. (Trisodium Hexafluoroaluminate)	Proper Shipping Name	3077 Environmentally Hazardous Substance, Solid, n.o.s. (Trisodium Hexafluoroaluminate)
Transport Hazard Class(es)	9 (M7) Miscellaneous dangerous substances and articles.	Transport Hazard Class(es)	9 Miscellaneous dangerous substances and articles.
			
Packing Group	III	Packing Group	III
Hazard Label(s)	9	Hazard Label(s)	9
Marine pollutant:	Yes	Marine pollutant:	Yes
Special marking:	Symbol (fish and tree)	Special marking:	Symbol (fish and tree)
Limited quantities (LQ)	5 kg		
Transport category	3		
Tunnel restriction code	E		
Danger code (Kemler)	90		
Special Precautions For User	Warning: Miscellaneous dangerous substance and articles.	Special Precautions For User	Warning: Miscellaneous dangerous substance and articles.
Sea Transport (IMDG) (c)		Air Transport (ICAO/IATA) (c) (d)	
UN Number	UN3077	UN Number	UN3077
Proper Shipping Name	3077 Environmentally Hazardous Substance, Solid, n.o.s. (Trisodium Hexafluoroaluminate) Marine Pollutant	Proper Shipping Name	3077 Environmentally Hazardous Substance, Solid, n.o.s. (Trisodium Hexafluoroaluminate)



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Transport Hazard Class(es)	9 Miscellaneous dangerous substances and articles.	Transport Hazard Class(es)	9 Miscellaneous dangerous substances and articles.
			
Packing Group	III	Packing Group	III
Hazard Label(s)	9	Hazard Label(s)	9
Marine Pollutant	Yes	Marine Pollutant	Yes
Special marking:	Symbol (fish and tree)	Special marking:	Symbol (fish and tree)
Special Precautions For User	Warning: Miscellaneous dangerous substances and articles.	Special Precautions For User	Warning: Miscellaneous dangerous substances and articles.

UN "Model Regulation": UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, III  
 (b)- *ORM-D may be applicable within the USA for package sizes less than 30kg.*  
 (c)- *Consult with transport provider.*  
 (d)- *Check relevant regulations for Special Provisions.*

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable

### SECTION 15: REGULATORY INFORMATION

#### 15.1 Safety, Health And Environmental Regulations/Legislation Specific For The Substance Or Mixture

##### USA

##### SARA

Section 355 (extremely hazardous substances) Substance is not listed.

SARA 313 (Specific toxic chemical listings) Substance is not listed.

TSCA (Toxic Substance Control Act) Substance is listed.

##### Proposition 65 (California):

Chemicals known to cause cancer: Substance is not listed.

Chemicals known to cause reproductive toxicity for females: Substance is not listed.

Chemicals known to cause reproductive toxicity for males: Substance is not listed.

Chemicals known to cause developmental toxicity: Substance is not listed.

##### Carcinogenic Categories

EPA (Environmental Protection Agency) Substance is not listed.

IARC (International Agency for Research on Cancer) Substance is not listed.

**TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.

**MAK (German Maximum Workplace Concentration)** Substance is not listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.

##### Canada

Canadian Domestic Substances List (DSL) Substance is listed.

Canadian Ingredient Disclosure list (limit 0.1%) Substance is not listed.

Canada Ingredient Disclosure list (limit 1%) Substance is not listed.



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### Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC)  
according to REACH, Article 57

Substance is not listed.

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 16: OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

Acute Tox. 4: Acute toxicity, Hazard Category 4

Lact.: Reproductive toxicity, Additional category, Effects on or via lactation

STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

### Sources

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