SAFETY DATA SHEET

1. Identification

Product identifier **SYNTHETIC CRYOLITE**

Other means of identification

SDS number 189

Issue date 05-06-2014

Other means of identification

Revision date 05-06-2014

Version # 09

Synonym(s) Cryolite * Sodium aluminum fluoride * Trisodium hexafluoroaluminate

Recommended use Electrolyte for aluminum reduction cells

Recommended restrictions For industrial use only.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Alcoa Inc.
201 Isabella Street
Pittsburgh, PA 15212-5858 USA
Health and Safety Tel: 1-412-553-4649
Health and Safety Fax: 1-412-553-4822
Health and Safety Email: accmsds@alcoa.com

Emergency Information: USA: CHEMTREC: +1-703-527-3887 +1-800-424-9300
(24 Hour Emergency Telephone, multiple languages spoken);
ALCOA: +1-412-553-4001 (24 Hour Emergency Telephone, only English spoken)

Website: For a current Safety Data Sheet, refer to Alcoa websites: www.alcoa.com
or internally at my.alcoa.com EHS Community

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, inhalation	Category 4
	Specific target organ toxicity, repeated exposure	Category 1 (bones, lungs)
Environmental hazards	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

Label elements

Signal word Danger

Hazard statement Harmful if inhaled. Causes damage to organs through prolonged or repeated exposure by inhalation. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment.

Response IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Get medical advice/attention if you feel unwell. Collect spillage.

Storage Keep dry. Store in a dry place. Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

Specific hazards

Non-combustible. Not an explosion hazard.

May cause harm to breastfed babies. Direct contact: Can cause irritation of the eyes and skin. Dust: Can cause irritation of the upper respiratory tract.

Additional health effects from elevated temperature processing (e.g., if heated to decomposition): Vapors: Can cause severe irritation of the respiratory tract. Acute exposure: Can cause the accumulation of fluid in the lungs. Effects can be delayed up to 24 hours.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Hydrogen fluoride gas can be evolved above 930°F (500°C) in the presence of water vapor.

3. Composition/information on ingredients

Composition comments

Complete composition is provided below and may include some components classified as non-hazardous.

Substances

Chemical name	Common name and synonyms	CAS number	%
Cryolite (Trisodium hexafluoroaluminate)		13775-53-6	>91

Decomposition

Chemical name	CAS number	%
Hydrogen fluoride	7664-39-3	

Present as impurity: Chiolite (1302-84-7), <5% and Aluminium oxide (1344-28-1), <2%.
Cryolite may contain small amounts (<1%) of other metal fluorides: Calcium fluoride (7789-75-5) and Magnesium fluoride (7783-40-6).
Loss on ignition 2-6%%
Additional compounds which may be formed (during decomposition) are listed in Section 8.

4. First-aid measures

Eye contact

Rinse eyes with plenty of water or saline for at least 15 minutes. Consult a physician.

Skin contact

Wash with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Inhalation

Remove to fresh air. Check for clear airway, breathing, and presence of pulse. If breathing is difficult, provide oxygen. Loosen any tight clothing on neck or chest. Provide cardiopulmonary resuscitation for persons without pulse or respirations. Consult a physician.

Ingestion

If swallowed, dilute by drinking water. Recommend quantities up to 30 mL (~1 oz.) in children and 250 mL (~9 oz.) in adults. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do NOT induce vomiting. Call a physician immediately.

Most important symptoms/effects, acute and delayed

Direct contact: Can cause irritation of the eyes and skin.

Dust: Can cause irritation of the upper respiratory tract. Chronic exposure: Can cause fluoride deposition in bones and cartilage (fluorosis).

Additional health effects from elevated temperature processing (e.g., if heated to decomposition): Vapors: Can cause severe irritation of the respiratory tract. Acute exposure: Can cause the accumulation of fluid in the lungs (pulmonary edema). Effects can be delayed up to 24 hours.

Ingestion: Can cause irritation of the gastrointestinal tract. This product may be harmful or fatal if swallowed in large quantities.

Indication of immediate medical attention and special treatment needed

If breathing is difficult, give oxygen. Symptoms may be delayed.

General information

If exposed or concerned: get medical attention/advice.

5. Fire-fighting measures

Suitable extinguishing media

Use fire fighting methods and materials that are appropriate for surrounding fire.

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

Hydrogen fluoride gas can be evolved above 930°F (500°C) in the presence of water vapor.

Hazardous combustion products

No hazardous decomposition products are known.

Special protective equipment and precautions for firefighters

Firefighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

Fire-fighting equipment/instructions

Use standard fire fighting procedures and consider the hazards of other involved materials.

General fire hazards

Non-combustible. Not an explosion hazard.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Avoid generating dust. Avoid contact with skin and eyes. Use personal protection recommended in Section 8 of the SDS.

Evacuation procedures Keep unnecessary personnel away.

Methods and materials for containment and cleaning up Clean up in accordance with all applicable regulations. Avoid generating dust. Use dry cleanup procedures. Pick up mechanically. Do not allow this material to drain into sewers/water supplies. For waste disposal, see section 13 of the SDS.

Environmental precautions Do not allow to enter drains, sewers or watercourses.

7. Handling and storage

Handling Avoid generating dust. Avoid contact with skin and eyes. Avoid contact during pregnancy/while nursing. Wash thoroughly after handling. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Wet bath should not be added to an aluminum reduction cell. Avoid release to the environment.

Storage Keep material dry. Do not store outside unless covered and protected against precipitation.

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA

Components	Type	Value	Form
Cryolite (Trisodium hexafluoroaluminate) (CAS 13775-53-6)	TWA	2.5 mg/m3	(as F)

Decomposition	Type	Value	Form
Hydrogen fluoride (CAS 7664-39-3)	TWA	3 ppm	(as F)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value
SYNTHETIC CRYOLITE	PEL	2.5 mg/m3

US. OSHA Table Z-2 (29 CFR 1910.1000)

Material	Type	Value	Form
SYNTHETIC CRYOLITE	TWA	2.5 mg/m3	Dust.

ACGIH

Components	Type	Value	Form
Cryolite (Trisodium hexafluoroaluminate) (CAS 13775-53-6)	TWA	2.5 mg/m3	(as F)

Decomposition	Type	Value	Form
Hydrogen fluoride (CAS 7664-39-3)	Ceiling	2 ppm	(as F) (Skin)
	TWA	0.5 ppm	(as F) (Skin)

Alcoa

Material	Type	Value	Form
SYNTHETIC CRYOLITE	TWA	0.5 mg/m3	(as F)

Components	Type	Value	Form
Cryolite (Trisodium hexafluoroaluminate) (CAS 13775-53-6)	TWA	0.5 mg/m3	(as F)

Decomposition	Type	Value	Form
Hydrogen fluoride (CAS 7664-39-3)	STEL	1.64 mg/m3	Peak (as F) (Skin)
		2 ppm	Peak (as F) (Skin)
	TWA	0.5 mg/m3	(as F) (Skin)

Exposure guidelines

US ACGIH Threshold Limit Values: Skin designation

Hydrogen fluoride (CAS 7664-39-3) Can be absorbed through the skin.

US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants

HYDROGEN FLUORIDE, AS F (CAS 7664-39-3) Can be absorbed through the skin.

General Use personal protective equipment as required.

Appropriate engineering controls	Use with adequate ventilation to meet the limits listed in Section 8.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields. Use tight fitting goggles if excessive levels of dust are generated.
Skin protection	
Hand protection	Wear impervious gloves to avoid direct skin contact.
Other	Wear appropriate gloves and clothing to avoid direct skin contact. The need for personal protective equipment should be based upon a hazard assessment and recommendations from health / safety professionals. Wear chemical protective equipment that is specifically recommended by the manufacturer.
Respiratory protection	Use NIOSH-approved respiratory protection as specified by an Industrial Hygienist or other qualified professional if concentrations exceed the limits listed in Section 8. Suggested respiratory protection: N95, Acid gas cartridge for Hydrogen fluoride gas.
Thermal hazards	Not applicable.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Form	Solid, granular to powder.
Color	Light brown.
Odor	Odorless
Odor threshold	Not applicable
pH	Not applicable
Melting point/freezing point	1832 °F (1000 °C)
Initial boiling point and boiling range	Not determined
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - upper (%)	Not applicable
Flammability limit - lower (%)	Not applicable
Explosive properties	Not applicable.

Dust explosion properties

St class	Not applicable.
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	Not determined
Solubility(ies)	0.6 g/l
Partition coefficient (n-octanol/water)	Not applicable. Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not determined
Viscosity	Not available.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable under normal conditions of use, storage, and transportation.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat and moisture.
Incompatible materials	Contact with strong acids releases hydrogen fluoride.
Hazardous decomposition products	Hydrogen fluoride Hydrogen fluoride gas can be evolved above 930°F (500°C) in the presence of water vapor.

11. Toxicological information

Information on likely routes of exposure

Eye contact	Direct contact: Can cause irritation.
Skin contact	Direct contact: Can cause irritation.
Inhalation	Chronic exposure: Can cause fluoride deposition in bones and cartilage (fluorosis). Associated with asthma. Additional health effects from elevated temperature processing (e.g., if heated to decomposition): Vapors: Can cause severe irritation of the respiratory tract. Acute overexposure: Can cause the accumulation of fluid in the lungs (pulmonary edema). Effects can be delayed up to 24 hours. Harmful if inhaled. Can cause irritation of the gastrointestinal tract.
Ingestion	Can cause irritation of the gastrointestinal tract. This product may be harmful or fatal if swallowed in large quantities.
Symptoms related to the physical, chemical and toxicological characteristics	Dust from processing: Irritating to eyes, respiratory system and skin. Chronic exposure: Can cause fluoride deposition in bones and cartilage (fluorosis). Associated with asthma. Additional health effects from elevated temperature processing (e.g., if heated to decomposition): Vapors: Can cause severe irritation of the respiratory tract. Acute exposure: Can cause the accumulation of fluid in the lungs (pulmonary edema). Effects can be delayed up to 24 hours.

Health effects associated with ingredients

Cryolite: Can cause irritation of eyes, mucous membranes, skin and upper respiratory tract. Chronic overexposures: Associated with asthma. Can cause fluoride deposition in bones and cartilage (fluorosis) as evidenced by x-ray changes and can be accompanied by stiffness of the joints. May cause harm to breastfed babies.

Fluorides: Can cause irritation of eyes, mucous membranes, skin and respiratory tract. Chronic overexposures: Associated with asthma. Can cause fluoride deposition in bones and cartilage (fluorosis) as evidenced by x-ray changes and can be accompanied by stiffness of the joints. May cause harm to breastfed babies.

Alumina (aluminum oxide): Low health risk by inhalation. Generally considered to be biologically inert.

Health effects associated with compounds formed during processing

Can generate the following when heated to decomposition:

Hydrogen fluoride: Can cause severe irritation of the eyes, mucous membranes, skin and respiratory tract. Acute overexposures: Can cause cough, shock, the accumulation of fluid in the lungs (pulmonary edema) and death. Effects can be delayed up to 24 hours.

Information on toxicological effects

Acute toxicity

Components	**Species**	**Test Results**
Cryolite (Trisodium hexafluoroaluminate) (CAS 13775-53-6)		
Acute		
Dermal		
AT_LD50	Rat	> 2000 mg/kg
Oral		
AT_LD50	Rat	> 1600 mg/kg
Decomposition	**Species**	**Test Results**
Hydrogen fluoride (CAS 7664-39-3)		
Acute		
Inhalation		
LC50	Guinea pig	3.54 mg/l, 15 Minutes
	Monkey	1780 mg/l, 1 Hours
	Mouse	500 mg/l, 1 Hours
	Rat	4970 mg/l, 5 Minutes
		2689 mg/l, 15 Minutes
		2042 mg/l, 30 Minutes
		1278 mg/l, 1 Hours

Skin corrosion/irritation	Non-corrosive.

Serious eye damage/eye irritation May irritate eyes.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity Not classified. Based on available data, the classification criteria are not met.

Carcinogenicity Does not present any cancer hazards.

ACGIH Carcinogens

Cryolite (Trisodium hexafluoroaluminate) (CAS 13775-53-6)	A4 Not classifiable as a human carcinogen.
Hydrogen fluoride (CAS 7664-39-3)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Hydrogen fluoride (CAS 7664-39-3)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects. May cause harm to breastfed babies.

Specific target organ toxicity - single exposure Not available.

Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure by inhalation.

Aspiration hazard Not an aspiration hazard.

Chronic effects Can cause fluoride deposition in bones and cartilage (fluorosis) as evidenced by x-ray changes. May cause lung damage.

12. Ecological information

Ecotoxicity

Components		Species	Test Results
Cryolite (Trisodium hexafluoroaluminate) (CAS 13775-53-6)			
Algae	EC50	Algae	8.8 mg/l, 72 hours
Crustacea	EC50	Daphnia	5 mg/l, 48 hours
Other	LC50	Freshwater fish	> 100 mg/l, 96 hours
Aquatic			
Fish	LC50	Brown trout (Salmo trutta)	125 mg/l, 48 hours

Decomposition		Species	Test Results
Hydrogen fluoride (CAS 7664-39-3)			
Aquatic			
Fish	LC50	Brown trout (Salmo trutta)	125 mg/l, 48 hours

Persistence and degradability The product solely consists of inorganic compounds which are not biodegradable.

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

Mobility in soil No data available.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Reuse or recycle material whenever possible. If reuse or recycling is not possible, disposal must be made according to local or governmental regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Waste codes RCRA Status: Not federally regulated in the U.S. if disposed of "as is." RCRA waste codes other than described here may apply depending on use of the product. Status must be determined at the point of waste generation. Refer to 40 CFR 261 or state equivalent in the U.S.

US RCRA Hazardous Waste U List: Reference

Hydrogen fluoride (CAS 7664-39-3)	U134

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Dispose of in accordance with local regulations.

14. Transport information

General Shipping Notes

• For international shipments, excluding the U.S. & Canada, use the HTS code 2826.30.0000. Use HTS code 3824.90.3900 for shipments involving the U.S. and 3824.90.0090 for shipments involving Canada.

DOT

Basic Shipping Information

ID number	-
Proper shipping name	Not regulated
Hazard class	-
Packing group	-

DOT Specific Notes

• This material is regulated differently when transported to, from or within a country that is required to comply with the ADR. Refer to the destination country's version of the SDS for transportation information.
• This description only applies for U.S. domestic shipment by motor, rail or vessel shipments, or U.S. domestic air if shipped under DOT regulations via UPS or FEDEX.
• Description may be used when not regulated domestically (e.g., US DOT, TDG Canada) and materials shipped within or between such countries via road or rail and does not involve transport by international water or air.
• When "Not regulated", enter the proper freight classification, SDS Number and Product Name onto the shipping paperwork.
• Despite OSHA HCS Environmental hazard classification in Section 2 of this SDS, Trisodium hexafluoroaluminate (Cryolite) is not listed in Appendix B to 49 CFR 172.101, therefore the material is not a USDOT Marine Pollutant.
• Transport in a dry and covered sift-proof packaging or receptacle. Outside storage during transit permitted on pads (with a base of concrete or other impervious material) that are covered and have secondary containment.
• Trisodium hexafluoroaluminate (Cryolite) is not listed on Table 1, Appendix A to 49 CFR 172.101, the USDOT List of Hazardous Substances and Reportable Quantities.
• Standard Transportation Commodity Code (STCC): 28-196-67.

DOT Alternate Basic Shipping Description #1

Basic Shipping Information

ID number	UN3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Technical name	TRISODIUM HEXAFLUOROALUMINATE
Hazard class	9
Packing group	III

Environmental hazards:

Marine pollutant	Marine Pollutant (EHS-aquatic environment)

Notes for Alternate DOT Description

• Applies to shipments to, from and within countries regulated by European Agreement concerning Carriage of Dangerous Goods by Road (ADR) according to Chapter 2.2.9.1.10. This mixture has been designated as N: Dangerous to the Environment and further classified as R51/53: Toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. IBC08, UN packaging (e.g. flexible, lined Super Sacks®) authorized.
• Applies to international shipments when transported by air or water as the material is a Marine Pollutant according to the IMDG (2.9.3) and an Environmentally Hazardous Substance (aquatic environment) per the UN Model Regulations (2.9.3).
• Material is regulated as an Environmentally Hazardous Substance (aquatic environment) according to the ADRs (2.2.9.1.10.5.2) and a Marine Pollutant according to the IMDG (2.9.3). As such packages and transport units must display the Environmentally Hazardous Substance mark according to ADR 5.2.1.8 and 5.3.6, which are identical to the Marine Pollutant mark identified in the IMDG code (IMDG 5.2.1.6 and 5.3.2.3).
• For packaging (including IBCs), the EHS "mark" is 100mm x 100mm (same size as danger labels). For Cargo Transport Units, the EHS "mark" is 250mm x 250mm (same size as placards.) See ADR 5.2.1.8.3 for "labeling" requirements and ADR 5.3.6 for placarding/marking type requirements of the EHS "mark".

IATA Notes

• This classification may be used for International Air Transportation Association (IATA) and International Civil Aviation Organization (ICAO) international air shipments. Packaging Instruction 911 applies.

IMDG Notes

• The words "MARINE POLLUTANT" must supplement the proper shipping name on transport document as indicated in International Maritime Dangerous Goods code (IMDG) 5.4.1.4.3.6. for international carriage by vessel.
• IBCs need to be "marked" on two opposing sides with the Proper shipping name and technical name in addition to the UN number markings (IMDG 5.2.1).

Disclaimer

This section of the SDS provides basic classification information for transport, and where relevant, it also provides information with respect to specific modal regulations, environmental hazards (e.g., marine pollutant), and special precautions to the user. Otherwise it is to be presumed that the information is not available or not relevant.

15. Regulatory information

US federal regulations

In reference to Title VI of the Clean Air Act of 1990, this material does not contain nor was it manufactured using ozone-depleting chemicals.
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories	Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
SARA 302 Extremely hazardous substance	No
SARA 311/312 Hazardous chemical	Yes

SARA 313 (TRI reporting)

Not regulated.

US state regulations

US. Pennsylvania RTK - Hazardous Substances

Cryolite (Trisodium hexafluoroaluminate) (CAS 13775-53-6)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

SDS Status	May 6, 2014: Change(s) in Section: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15 and 16. July 18, 2011: Change(s) in Section: 1, 2, 8, 10 and Exposure Scenarios. October 5, 2010: Change(s) in Section: 1, 2, 3, 8 and 11. April 6, 2010: Change(s) in Section: 2, 4, 11, 12 and 14. February 26, 2010: New format. March 3, 2009: New format. February 14, 2006: Change(s) in Section: 1, 2, 3, 4, 8, 11 and 15. March 18, 2003: Reviewed on a periodic basis in accordance with Alcoa policy. Change(s) in Section: Product label, Replaces Eastalco Aluminum Company SDS for "Bath (Synthetic Cryolite)" Origination date: June 28, 1981 Hazardous Materials Control Committee Preparer: Jim Perriello, +1-865-977-2051. SDS System Number:
Issue date	05-06-2014
Revision date	05-06-2014
Version #	09
Further information	None known.
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.

Revision Information

Product and Company Identification: Synonyms
Hazards Identification: EU Hazard Classifications
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
Transport Information: Agency Name, Packaging Type, and Transport Mode Selection
Regulatory Information: United States
HazReg Data: North America
GHS: Qualifiers
REACH: Registration Substance

Other information

• Guide to Occupational Exposure Values 2013, Compiled by the American Conference of Governmental Industrial Hygienists (ACGIH).
• NIOSH Pocket Guide to Chemical Hazards, U.S. Department of Health and Human Services, September 2005,
• United States National Library of Medicine TOXNET Toxicology Data Network,
• Ariel, 3E Company, www.3Ecompany.com

Key/Legend:

ACGIH	American Conference of Governmental Industrial Hygienists
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstract Services
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CPR	Cardio-pulmonary Resuscitation
DOT	Department of Transportation
DSL	Domestic Substances List (Canada)
EC	Effective Concentration
ED	Effective Dose
EINECS	European Inventory of Existing Commercial Chemical Substances
ENCS	Japan - Existing and New Chemical Substances
EWC	European Waste Catalogue
EPA	Environmental Protective Agency
IARC	International Agency for Research on Cancer
LC	Lethal Concentration
LD	Lethal Dose
MAK	Maximum Workplace Concentration (Germany) "maximale Arbeitsplatz-Konzentration"
NDSL	Non-Domestic Substances List (Canada)
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PIN	Product Identification Number
PMCC	Pensky Marten Closed Cup
REACH	Registration, Authorization & Restriction of Chemicals
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
SIMDUT	Système d'Information sur les Matières Dangereuses Utilisées au Travail
STEL	Short Term Exposure Limit
TCLP	Toxic Chemicals Leachate Program
TDG	Transportation of Dangerous Goods
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
WHMIS	Workplace Hazardous Materials Information System

m meter, cm centimeter, mm millimeter, in inch,
g gram, kg kilogram, lb pound, µg microgram,
ppm parts per million, ft feet

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SYNTHETIC CRYOLITE

Danger

Hazard statement

Harmful if inhaled. May cause harm to breast-fed children. Causes damage to organs (lungs) through prolonged or repeated exposure by inhalation. Causes damage to organs (lungs) through prolonged or repeated exposure by inhalation. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Avoid contact during pregnancy/while nursing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment.

Response

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. If exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell. Collect spillage.

Storage

Keep dry. Store in a dry place. Store away from incompatible materials.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental information

FIRE FIGHTING MEASURES: Non-combustible. Use fire-extinguishing media appropriate for surrounding materials. Hydrogen fluoride gas can be evolved above 930°F (500°C) in the presence of water vapor.

IN CASE OF SPILL: Avoid the generation of dusts during clean-up. Avoid contact with skin and eyes. Use dry cleanup procedures. Pick up mechanically. Wear appropriate personal protective equipment. Do not allow the spilled product to enter public drainage system or open water courses.

See Alcoa SDS Number 0189.

ALCOA

Alcoa Inc., 201 Isabella Street, Pittsburgh, PA 15212-5858 United States +1-412-553-4001 (24 Hour Emergency Telephone, English only)
CANADA: Canutec: +1-613-996-6666
USA: Chemtrec: +1-703-527-3887 +1-800-424-9300 (24 Hour Emergency Telephone, multiple languages spoken)
Alcoa Health and Safety Email: accmsds@alcoa.com Tel: +1-412-553-4649 and Fax: +1-412-553-4822