Safety Data Sheet

Product Name:	Vari-Etch Frosting Powder
SDS Date:	06/01/2018

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Vari-Etch Frosting Powder
General Use: Frosting Etching Glass

Manufacturer:
His Glassworks, Inc.
2000 Riverside Drive, Suite 19
Asheville, NC 28804
800-914-7463 toll free
828-254-2581 fax

24 HR. Emergency Telephone Numbers:

ChemTel, Inc.
Toll Free: 800-255-3924
International: +813-248-0585

2. HAZARDS IDENTIFICATION

GHS Classifications

Acute Toxicity, Oral, Category 3 (H301)
Skin Corrosion, Category 1B (H314)
Serious eye damage, Category 1 (H318)

GHS Label

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H301 Toxic if swallowed

H314 Causes Severe skin burns and eye damage.

PRECAUTIONARY STATEMENTS

P260 Do not breathe dust or mist
P264 Wash skin thoroughly after handling
P270 Do not eat, drink, or smoke when using this product
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
P301+P310 If swallowed: Immediately pall a poison center or doctor/physician
P301+P330+P331 If swallowed: rinse mouth. DO NOT induce vomiting.
P303+P361+P353 If on skin: Remove/take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340 If inhaled: Remove victim to fresh air and keep at rest in a position 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/physician.
P321 Specific treatment (see supplemental first aid instructions on this label).
P363 Wash contaminated clothing before re-use.
P405 Store locked up.
P501 Dispose of contents/container to an approved waste disposal plant.

EMERGENCY OVERVIEW

Physical appearance and odor: White crystals with mildly sweet aroma.

POTENTIAL HEALTH EFFECTS

Primary Entry Routes: Inhalation, skin and eye contact, ingestion.
Target Organs: Eye, skin, teeth and bones, kidneys, central nervous system.

Inhalation: May cause irritation (possibly severe) of the respiratory tract. Respiratory stimulation occurs first, followed by depressed respirations. Death may occur from respiratory paralysis.
Eyes: Direct contact can cause corrosive ocular burns.
Skin: Contact is irritating and may cause an unusual, large, pustular skin rash that appears similar to ballooning of the skin. If skin is moist, formation of hydrofluoric acid can cause severe burns. These burns do not appear serious at first, but may penetrate all the way to the bone.
Ingestion: Symptoms include digestive tract irritation or corrosion, nausea and vomiting (possibly bloody), bloody diarrhea, abdominal pain, muscle weakness and spasms, dehydration, convulsions, progressive CNS depression (fatigue, coma, and respiratory arrest, even in absence of circulatory failure), cardiac arrhythmia, and excessive potassium and calcium in the blood.
Carcinogenicity: IARC, NTP, OSHA and CA Prop65 do not list Vari-Etch materials as carcinogens.
Medical conditions aggravated by long-term exposure: Kidney or bone disorders
Chronic effects: Repeated or prolonged exposure to and absorption of the fluoride ion can cause kidney damage as well as fluorosis (brittle bones, calcified ligaments, and anemia).

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	CAS#	Concentration
Ammonium Bifluoride	1341-49-7	< 51%
$C_{12}H_{22}O_{11}$	57-50-1	< 51%

4. FIRST AID MEASURES

Inhalation: Remove exposed person to fresh air and support breathing as needed

Skin Contact: Quickly remove contaminated clothing. Rinse with flooding amounts of water for at least 15 minutes. After rinsing, massage in a 2.5% calcium gluconate gel until pain is relieved. If pain persists, calcium gluconate injections may be necessary. Consult a physician.

Eye Contact: Do not allow victim to rub or keep eyes tightly shut. Gently lift eyelids and flush immediately and continuously with flooding amounts of water until transported to an emergency medical facility. Consult a physician immediately.

Ingestion: Never give anything by mouth to an unconscious or convulsing person. Contact a poison control center. Unless the point center advises otherwise, have the conscious and alert person drink 1 to 2 glasses of water to dilute. The decision to induce vomiting is debatable. Its corrosive nature may indicate gastric lavage or binding of the fluoride ion with milk, calcium gluconate or calcium lactate.

Notes to Physician	Administration of antacids (magnesium and aluminum) is suggested. Seizures may require Diazepam but can ultimately be corrected by electrolyte stabilization. Monitor EKG, electrolytes, and vital signs. High concentrations of fluoride ion may be present in the urine after skin contact. Sucralfate may be helpful in protecting the upper GI tract from acid injury. Consult with a poison center on current recommendations.
Special Precautions/Procedures	Emergency personnel should protect against secondary contamination.

5. FIRE-FIGHTING MEASURES

Flash Point:	Non combustible
Suitable extinguishing media:	Carbon dioxide (CO_2)
	Dry Chemical
	Contact of this product with water produces hydrofluoric acid which is capable of etching glass, cement and many metals.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Wear personal protective equipment
	Avoid all skin contact.
	Ensure adequate ventilation.
	Avoid breathing vapors, mist or gas.
	Avoid contact with skin, eyes and clothing.
Environmental precautions:	Do not flush into surface water or sanitary sewer system.
	Prevent product from entering drains.
Methods for clean-up:	Ventilate the area.
	Contain dry material with a plastic sheet.

7. HANDLING AND STORAGE

Handling

Handling:	Wear personal protective equipment.
	Use only in well ventilated areas.
	Keep container tightly closed.
	Do not swallow.
	Avoid breathing vapors, mist or gas.
	Avoid contact with skin, eyes and clothing.

Storage

Requirements for storage areas and containers:	Do not store in glass containers.
	Keep containers tightly closed in dry, cool and well ventilated place.
	Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Protective Measures:	Ensure that eyewash stations and safety showers are close to the workstation location.
Engineering measures:	Use with local exhaust ventilation.
	Prevent vapor buildup by providing adequate ventilation during and after use.
Eye protection:	Do not wear contact lenses.
	Wear safety glasses with side shields.
Hand protection:	Solvent resistant gloves.
Skin and body protection:	Solvent resistant apron.
Respiratory protection:	In case of sufficient ventilation wear suitable respiratory equipment.

Hygiene measures:	When using, do not eat or drink.
Hygiene measures:	Wash hands before breaks and immediately after handling the product.
	Keep work clothes separate.
	Remove and wash contaminated clothing before re-use.
	Do not swallow.
	Avoid breathing vapors, mist or gas.
	Avoid contact with skin, eyes and clothing.

Exposure Guidelines

Component	Type	Value
Fluorides	ACGIH	2.5mg/m^3
	OSHA	2.5mg/m^3

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	White crystals or flakes
Color:	White
Odor:	slightly sweet
Molecular Weight:	57.04
pH:	2
Boiling point/range:	239º C (462º F)
Vapor pressure:	<0.75 mmHg @ 20º C
Relative vapor density:	not determined (Air = 1.0)
Water solubility:	63g/L @ 20º C
Specific gravity:	1.503 @ 25º C

10. STABILITY AND REACTIVITY

Conditions to avoid:	Avoid dispersion into air
	contact with water forms hydrofluoric acid which can corrode glass, cement and some metals.
Materials to avoid:	Strong acids.
	Strong oxidizing agents.
	Keep away from glass and silicates.
Hazardous decomposition products:	In case of fire hazardous decomposition products may be produced such as:
	Nitrogen oxides, fluorine and ammonia gas
Hazardous reactions:	Hazardous polymerisation does not occur.
	Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Acute and Chronic Toxicity:	Harmful or fatal if swallowed.
	Ingestion can result in severe gastric distress with possible vomiting, bloody diarrhea, hypocalcemia.
Acute Dermal Toxicity:	Long term skin exposure to this product may lead to mottled tooth enamel and osteosclerosis (an increased density in the bones and calcification ligaments due to accumulation of fluoride).

12. ECOLOGICAL INFORMATION

Biodegradability:	Ammonia compounds are biodegradable and will not accumulate in the food chain.

13. DISPOSAL CONSIDERATIONS

Observe all Federal, State and Local Environmental regulations.

14. TRANSPORT INFORMATION

DOT Classification:

Proper shipping name:	Corrosive solid, acidic, organic, n.o.s. (ammonium hydrogendifluoride)
Class:	8
UN ID#:	UN3261
Packing Group:	II

IATA Classification:

Proper shipping name:	Corrosive solid, acidic, organic, n.o.s. (ammonium hydrogendifluoride)
Class:	8
UN ID#:	UN3261
Packing Group:	II

15. REGULATORY INFORMATION

EU. EINECS:	on the inventory or in compliance with the inventory
US Toxic Substances Control Act:	On TSCA Inventory
Australia (Industrial Chemical Notification and Assessment Act)	On the inventory or in compliance with the inventory
Canada	All components of this product are on the Canadian DSL list.
Japan	On the inventory or in compliance with the inventory
Korea	On the inventory or in compliance with the inventory
Phillipines	On the inventory or in compliance with the inventory
China	On the inventory or in compliance with the inventory
Switzerland	On the inventory or in compliance with the inventory

New Zealand	On the inventory or in compliance with the inventory
European Labeling in Accordance with EC Directives	
Hazard Symbols	T C
Risk Phrases	R25 Toxic if swallowed
	R34 Causes burns
Safety Phrases	S22 Do not breathe dust
	S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
	S37 Wear suitable gloves
	S45 In case of accident or if you feel unwell, seek medical advice immediately.

16. OTHER INFORMATION

	HMIS III	**NFPA**
Health:	3	3
Flammability	0	0
Reactivity:	1	1
Personal Protection	0	0