

Material Safety Data Sheet

Date last reviewed: January 1, 2008

I. General Information

Chemical Name & Synonyms Proprietary Mixture	Trade Name & Synonyms Safe n' Easy Heavy Duty Restoration Cleaner
Chemical Family Corrosive Mixture	Formula Mixture
Proper DOT Shipping Name Ammonium Hydrogendifluoride Solution, 8, UN2817, PG III	DOT Hazard Classification Corrosive Liquid
Manufactured for: Dumond Chemicals, Inc.	Information Phone Number (212) 869-6350
Address 1501 Broadway, New York, NY 10036	Emergency Number: (800) 535-5053 (Infor Trac)

II. Ingredients

Principal Hazardous Components	CAS #	Percent	OSHA PEL	ACGIH TLV
Ammonium Bifluoride	1341-49-7	20-30	2.5 mg/m ³ TWA (as Fluoride)	2.5 mg/m ³ TWA (as Fluoride)

SARA 313: This product contains no chemicals that are regulated under SARA Title III, section 313.

III. Physical Data

Boiling Point (°F) Not available	Specific Gravity (H ₂ O =1) Approximately 1.05
Vapor Pressure (mm Hg) Same as water	Percent Volatile by Volume (%) 85-95%
Vapor Density (Air=1) Not available	Evaporation Rate (Butyl Acetate =1) Same as water
Solubility in Water Complete	pH 5.5
Appearance & Odor Clear liquid with no odor. When the product is applied, ammonia is released which has a pungent odor.	

IV. Fire & Explosion Hazard Data

Flash Point (Test Method) None	Autoignition Temperature None		
Flammable Limits None	LEL N/A	UEL N/A	
Extinguishing Media This material is not combustible. Use media appropriate for the surrounding fire.			
Special Fire Fighting Procedures Wear full emergency equipment and NIOSH approved positive pressure SCBA. Cool containers with water.			
Unusual Fire & Explosion Hazards Contact with alkalis and metals may evolve flammable hydrogen gas. Emits toxic fumes under fire conditions.			
HMIS Ratings	Health: 3*	Flammability: 0	Reactivity: 0

V. Health Hazard Data

OSHA Permissible Exposure Limit See Section II	ACGIH Threshold Limit Value See Section II
Carcinogen - NTP Program No	Carcinogen - IARC No
Symptoms of Exposure <u>Acute Effects:</u> Eyes: May cause severe irritation or burns . Skin: May cause severe irritation or burns. Burns may not be immediately painful or visible. Treat all contact immediately and get medical attention. Inhalation: Mists and vapors may cause respiratory irritation or burns. May cause fluoroide poisoning with effects similar to those listed under "ingestion". Symptoms may be delayed. Ingestion: Swallowing may cause gastrointestinal irritation or burns. May cause fluoride poisoning with symptoms including weakness, tremors, shallow breathing, spasms of the hands and feet, convulsions and coma. May cause central nervous system, kidney and cardiovascular effects. Respiratory paralysis may cause death. Swallowing large amounts may cause hypocalcemia and hypomagnesia.	
<u>Chronic Effects:</u> Prolonged or repeated exposure may cause mottling of teeth, damage to bones and fluorosis with symptoms including brittle bones, weight loss, anemia, calcified ligaments and joint stiffness.	
Medical Conditions Aggravated By Exposure: : Individuals with diabetes or chronic kidney disorders	
Primary Route(s) of Entry: Eye, skin, inhalation, ingestion	
Emergency First Aid Eye: Immediately flush with water for 15 minutes. Get immediate medical attention. Skin: Immediately wash with large amounts of water. Remove contaminated clothing. Get immediate medical attention. Inhalation: Remove to fresh air. Restore breathing. Get immediate medical attention. Ingestion: If conscious, give milk, chewable calcium carbonate tablets or milk of magnesia. Do not induce vomiting. Get immediate medical attention.	

IV. Reactivity Data

Stability	X	Unstable Stable	Conditions to Avoid Contact w/metals and alkalies may release flammable hydrogen gas.
Incompatibility Avoid acids, alkalies, caustics, sulfides, sulfur oxides and ammonia. Reacts with acids to liberate toxic and corrosive hydrogen fluoride. Reacts with bases to liberate ammonia.			
Hazardous Polymerization	X	May Occur Will Not Occur	Conditions to Avoid N/A
Hazardous Decomposition Thermal decomposition may yield toxic hydrogen fluoride, nitric oxides and ammonia.			

VII. Environmental Protection Procedures

Spill Response Wear appropriate protective clothing. Dike spill and prevent from entering sewers and waterways. Collect into appropriate containers for disposal with an absorbent. Wash spill area with water. Report spill as required.
Waste Disposal Method Dispose of in accordance with all state, local and federal regulations.

VIII. Special Protection Information

Eye Protection Wear chemical safety goggles and/or faceshield.	Skin Protection Neoprene, nitrile, 4H gloves required.
Respiratory Protection (Specific Type) For spray application, wear an approved full facepiece particulate respirator.	Ventilation Recommended If exposure limits are exceeded, local exhaust may be required.
Other Protection A safety shower and an eye wash facility should be available in the immediate work area.	

IX. Special Precautions

Hygienic Practices in Handling & Storage Store in a cool, well ventilated area away from alkalies and acids. Do not store in metals containers.
Work Practices Prevent eye and skin contact. Do not breathe mists or mists. Use only with adequate ventilation.
Other Precautions Use only with appropriate protective equipment. Wash thoroughly after use.