

MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet complies with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910.1200.

1. Product and Supplier Identification

Product: Stain Remover that Really Works

Product Use: Wipe on plating solutions for stained glass crafts.

Supplier: Novacan Industries Ltd.
856 Washington Drive,
Port Moody, BC Canada V3L 5B5
Emergency Telephone: (604) 986-4617

Manufacturer: As above

2. Composition

Component	% (w/w)	Exposure Limits
Fluoboric Acid (CAS No.16872-11-0)	35-40	OSHA (PEL): 2.5 mg/m ³ for fluorides ACGIH (TLV): 2.5 mg/m ³ for fluorides

3. Hazards Identification

Routes of Entry: (under normal conditions of use)

Skin Contact: Major Eye Contact: Major Ingestion: Major Inhalation: Major

Effects of Short-Term (Acute) Exposure:

Inhalation: Inhalation of vapour is severely irritating to the upper respiratory tract and can cause burning sensation, severe coughing, wheezing, aggravation of bronchitis, and asthma. In severe cases, pulmonary edemas may result.

Skin Contact: Corrosive. Skin contact causes severe burns and irritation.

Eye Contact: Corrosive. Eye contact causes burns and irritation.

Ingestion: Ingestion is harmful. May cause irritation and/or systemic toxicity may occur. May be fatal.

Effects of Long-Term (Chronic) Exposure:

Exposure to fluorides over years may produce embrittlement and decalcification of bones, and increased calcification of ligaments and vertebrae resulting in spinal stiffness (fluorosis). cause redness, swelling and pain (dermatitis). No evidence of carcinogenicity in human studies.

Hazards Identification, continued

Medical Conditions Aggravated By Exposure:

Exposure could aggravate any skin irritations or respiratory ailments.

4. First Aid Measures

Eye Contact: Immediately flush eye(s) with running water for 15 minutes. Lift the upper and lower lids frequently to rinse thoroughly. Get medical attention immediately.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion: If swallowed, do not induce vomiting. Rinse mouth with water and give large quantities of milk or milk of magnesia. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. Fire Fighting Measures

Flash point:	Not Applicable
Autoignition temperature:	Not applicable.
Lower Explosive Limit:	Not established
Upper Explosion Limit:	Not established
Sensitivity to Impact:	Not sensitive.
Sensitivity to Static Discharge:	Not sensitive.

Hazardous Combustion Products: Toxic and corrosive fluoride compounds may be released in a fire situation.

Extinguishing Media: No specific recommendation. Use media to suppress surrounding fire, for example, water, carbon dioxide, or foam.

Fire Fighting Instructions: Fire fighters should wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD INDEX:

HEALTH: 2 - Short exposure could cause serious temporary or residual injury.

FLAMMABILITY: 0 - Will not burn.

REACTIVITY: 0 - Not reactive when mixed with water.

SPECIFIC HAZARDS: Corrosive

6. Accidental Release Measures

Personal Protection: Evacuate unnecessary personnel from spill area. Wear appropriate personal protective equipment as specified in section 8 while cleaning the spill. Do not touch spilled product without proper personal protection. Ventilate area of leak or spill.

Environmental Precautions: Implement spill control plan. Stop or reduce leak if safe to do so. Prevent from entering sanitary or storm sewers, or waterways.

Remedial Measures: Restrict access to area until completion of cleanup. Use all appropriate personal protective equipment. Contain and recover liquid when possible. Neutralize with alkaline material (soda ash, lime), then absorb with an inert material (e. g., vermiculite, dry sand, earth), and dispose of in DOT approved waste containers. Do not use combustible materials, such as saw dust. Notify government occupational health and safety and environmental authorities as per applicable regulations. Comply with all applicable governmental regulations on spill reporting and handling and disposal of waste. It is recommended that each user establish a spill prevention, control and counter measure plan. Such a plan should include procedures applicable to proper storage, control and clean-up of spills, including reuse or disposal as appropriate.

7. Handling and Storage

Handling Procedures: Ensure adequate ventilation. Have emergency equipment readily available. Keep containers closed when not in use. Keep soda ash nearby for neutralization. Do not eat, drink or smoke in areas where the product is being used. Wash face and hands thoroughly after handling and before eating, drinking, or using tobacco products. Beware of getting in cuts.

Storage: Store in a cool, dry, well-ventilated area. Keep containers closed. Keep storage area separate from populated work areas.

8. Exposure Controls, Personal Protection

Engineering Controls: Use local mechanical exhaust ventilation capable of maintaining emissions at the point of use below the PEL.

Respiratory Protection: Use NIOSH approved respirator for protection as necessary. If the exposure limit is exceeded, a full facepiece respirator with an acid gas cartridge and dust/mist filter may be worn up to 50 times the exposure limit.

WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin protection: Wear protective acid resistant clothing and gloves.

Eye and Face Protection: Eye protection is required. Chemical safety goggles are recommended. It is generally recognized that contact lenses should not be worn when working with chemicals because contact lenses can contribute to the severity of an eye injury.

Footwear: As required by worksite rules.

Other: Have a safety shower and eye wash station readily available in the immediate work area.

9. Physical and Chemical Properties

Appearance:	Clear light yellow liquid	Vapor Density:	Not determined
Odor:	Mild acrid odor	Freezing Point:	Not determined
Odor Threshold:	Not determined	Boiling Point:	113 °C
pH:	< 1	Critical Temperature:	Not applicable.
Vapor Pressure:	5-10mmHg @ 20°C	Relative Density:	1.18 (water = 1)
Solubility:	Completely soluble in water	Partition Coefficient:	No data
		Evaporation Rate:	1 (BuAc =1)

10. Stability and Reactivity

Chemical Stability: Stable. NOTE: Releases toxic compounds with heat.

Incompatibility: Active metals, alkalis.

Hazardous Decomposition Products: Boron trifluoride and hydrogen fluoride on decomposition. Product will react with most metals to release flammable hydrogen gas.

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Acute Exposure: Not determined.

Chronic Exposure:	See Section 3.
Exposure Limits:	See Section 2.
Irritancy:	See Section 3.
Sensitization:	See Section 3.
Carcinogenicity:	See Section 2
Teratogenicity:	Not available
Reproductive toxicity:	Not available
Mutagenicity:	Inconclusive results
Synergistic products:	None reported.

12. Ecological Information

Environmental toxicity: No data available.

Biodegradability: No data available.

13. Disposal Considerations

Neutralize residues and consult the appropriate Federal, State and Local regulatory agencies to ascertain proper disposal procedures. Depending on usage, after use by-products may contain solder and/or other metals. It is recommended that each user take into account the additional contaminants introduced during usage when disposing and handling of waste.

14. Transport Information

Department of Transport (49 CFR): Fluoboric Acid, Solution, Class 8, UN 1775, P.G. II

International Air Transport Association (IATA): Fluoboric Acid, Solution, Class 8, UN 1775, P.G. II

International Maritime Organization (IMO): Fluoboric Acid, Solution, Class 8, UN 1775, P.G. II

15. Regulatory Information

UNITED STATES – FEDERAL REGULATIONS:

TOXIC SUBSTANCES CONTROL ACT (TSCA): All components are listed in the inventory.

OSHA, 29 CFR 1910, Subpart Z: Meets the criteria for a hazardous substance.

CERCLA, 40 CFR 302: Not listed

SARA 302, 40 CFR 355: Not listed

SARA 313, 40 CFR 372: Not listed

SARA 311/312, 40 CFR 370: Immediate (Acute) Health, Delayed (Chronic) Health.

16. Other Information

Preparation Date: Sept. 25, 2001

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Comments: This Material Safety Data Sheet was prepared using information provided by Novacan Industries Ltd., and CCINFO. The information in the Material safety Data Sheet is offered for your consideration and guidance when exposed to this product. Novacan Industries Ltd., expressly disclaims all expressed or implied warranties and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this MSDS does not apply to use with any other product or in any other process.

Revisions: None