Safety Data Sheet

Issue Date 19-Feb-2010 **Revision Date:** 30-Aug-2013 **Version** 1

1. IDENTIFICATION

Product Identifier

Product Name Rust Remover

Other means of identification

SDS # SVM-034

UN/ID No UN2922
Product Code 37042
Formula code X1120

Recommended use of the chemical and restrictions on use

Recommended Use Rust converter.

Details of the supplier of the safety data sheet

Manufacturer Address
ServiceMaster ™ Clean
3839 Forest Hill Irene Rd.
Memphis, TN, USA. 38125

Emergency Telephone Number

Company Phone Number 1-800-756-5656 (ServiceMaster™ Clean)
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1

Signal Word
Danger

Hazard Statements
Harmful if swallowed
Fatal if inhaled
Causes severe skin burns and eye damage

Appearance Translucent liquid **Physical State** Liquid **Odor** Strong acid odor

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Do not induce vomiting

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Water	7732-18-5	40-70
Ammonium bifluoride	1341-49-7	10-30
Hydroxyacetic acid	79-14-1	3-7
Sulfamic acid	5329-14-6	1-5
Oxalic acid	144-62-7	1-5

4. FIRST-AID MEASURES

First Aid Measures

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Inhalation Remove to fresh air. Seek immediate medical attention/advice.

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Drink 1 or 2 glasses of water. Get medical attention if you feel unwell. Never give anything by mouth to a person who is unconscious or convulsing.

Most important symptoms and effects

Symptoms Irritation and corrosive burns to mouth, throat, and stomach. Prolonged contact may even cause severe skin irritation or mild burn. May cause eye burns and permanent eye damage. Blindness may occur. May cause irritation to the mucous membranes and upper respiratory tract.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically. Exposure to fluorides over the years may produce an embrittlement and densification of bones, and an increased calcification of ligaments and vertebrae resulting in spinal stiffness.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical
Product is not flammable or combustible.

Hazardous Combustion Products May include and are not limited to oxides of carbon, hydrogen fluoride.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required.

Environmental Precautions See Section 12 for additional Ecological Information. Prevent large spills from entering sewers or waterways.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labeled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use personal protection recommended in Section 8. Use only in well-ventilated areas.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep locked up and out of reach of children. Store away from incompatible materials.

Incompatible Materials Alkaline materials. Metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ammonium bifluoride 1341-49-7	TWA: 2.5 mg/m^3 F	TWA: 2.5 mg/m^3 F TWA: 2.5 mg/m^3 dust (vacated) TWA: 2.5 mg/m^3	TWA: 2.5 mg/m^3 F
Oxalic acid 144-62-7	STEL: 2 mg/m^3 TWA: 1 mg/m^3	TWA: 1 mg/m^3 (vacated) TWA: 1 mg/m^3 (vacated) STEL: 2 mg/m^3	IDLH: 500 mg/m^3 TWA: 1 mg/m^3 STEL: 2 mg/m^3

Appropriate engineering controls

Engineering Controls General ventilation normally adequate. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Chemical splash goggles.

Skin and Body Protection Rubber gloves. Confirm with a reputable supplier first.

Respiratory Protection No protection is ordinarily required under normal conditions of use and with adequate ventilation.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid		
Appearance	Translucent liquid	**Odor**	Strong acid odor
Color	Colorless	**Odor Threshold**	Not available

Property	**Values**	**Remarks • Method**
pH	<1	100%
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	100 °C / 212 °F	
Flash Point	None	Tag Closed Cup
Evaporation Rate	Not available	
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limits	Not applicable	
Lower Flammability Limit	Not applicable	
Vapor Pressure	Not available	
Vapor Density	Not available	
Specific Gravity	1.138-1.287	(1=Water)
Water Solubility	Completely soluble	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition Temperature	Not applicable	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Water thin	
Dynamic Viscosity	Water thin	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
Additional Information	% Volatile (Wt %): 57.0	
Density	9.50-9.60 lb/gal	

10. STABILITY AND REACTIVITY

Reactivity
Do not mix with anything but water. Reacts vigorously with alkaline material.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to Avoid
Keep out of reach of children.

Incompatible Materials
Alkaline materials. Metals.

Hazardous Decomposition Products
May include and are not limited to oxides of carbon, hydrogen fluoride when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Inhalation Fatal if inhaled.

Ingestion Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium bifluoride 1341-49-7	= 130 mg/kg (Rat)	-	-
Hydroxyacetic acid 79-14-1	-	-	= 7100 µg/m^3 (Rat) 4 h
Sulfamic acid 5329-14-6	= 1450 mg/kg (Rat)	-	-
Oxalic acid 144-62-7	= 7500 mg/kg (Rat)	= 20000 mg/kg (Rat)	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Germ cell mutagenicity This product is not reported to produce mutagenic effects in humans.

Carcinogenicity Not classifiable as a human carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ammonium bifluoride 1341-49-7		Group 3		

Legend

IARC (International Agency for Research on Cancer)

Group 3 IARC components are "not classifiable as human carcinogens"

Reproductive toxicity This product does not contain any known or suspected reproductive hazards.

Teratogenicity No known significant effects or critical hazards.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydroxyacetic acid 79-14-1		5000: 96 h Brachydanio rerio mg/L LC50 static		
Sulfamic acid 5329-14-6		14.2: 96 h Pimephales promelas mg/L LC50 static		
Oxalic acid 144-62-7		4000: 24 h Lepomis macrochirus mg/L LC50 static		125 - 150: 48 h Daphnia magna mg/L EC50 Static

Persistence/Degradability

Not determined

Bioaccumulation

Not determined

Mobility

Chemical Name	Partition Coefficient
Hydroxyacetic acid 79-14-1	-1.11
Oxalic acid 144-62-7	-0.81

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Oxalic acid 144-62-7	Toxic

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No	UN2922
Proper Shipping Name	Corrosive liquid, toxic, n.o.s. (Ammonium bifluoride)
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	II

IATA

UN/ID No	UN2922
Proper Shipping Name	Corrosive liquid, toxic, n.o.s. (Ammonium bifluoride)
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	II

IMDG

UN/ID No	UN2922
Proper Shipping Name	Corrosive liquid, toxic, n.o.s. (Ammonium bifluoride)
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	II

TDG

UN/ID No	UN2922
Proper Shipping Name	Corrosive liquid, toxic, n.o.s. (Ammonium bifluoride)
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

TSCA	All ingredients are listed or exempt from listing on Chemical Substance Inventory
DSL	Listed
NDSL	Listed

Legend:

TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*

DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

EINECS/ELINCS *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

ENCS *- Japan Existing and New Chemical Substances*

IECSC *- China Inventory of Existing Chemical Substances*

KECL *- Korean Existing and Evaluated Chemical Substances*

PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ammonium bifluoride 1341-49-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Ammonium bifluoride - 1341-49-7	1341-49-7	10-30	1.0

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium bifluoride 1341-49-7 (10-30)	100 lb			X

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ammonium bifluoride 1341-49-7	X	X	X
Sulfamic acid 5329-14-6	X		
Oxalic acid 144-62-7	X	X	X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	3	0	0	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	Not determined	Not determined	Not determined	Not determined

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Revision Note New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet