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PROSOCO

Revision Number 2.02

Product identifier **Product Name**

Enviro Klean® SafRestorer

Other means of identification Product Code(s) **UN number**

41016 UN1760

Recommended use of the chemical and restrictions on use **Recommended use** Restricted to professional users. Uses advised against No information available

Details of the supplier of the safety data sheet **Manufacturer Address** PROSOCO, Inc. 3741 Greenway Circle Lawrence, Kansas 66046 Emergency telephone number 8:00 AM - 5:00 PM CST Monday-Friday NON-BUSINESS HOURS (INFOTRAC)

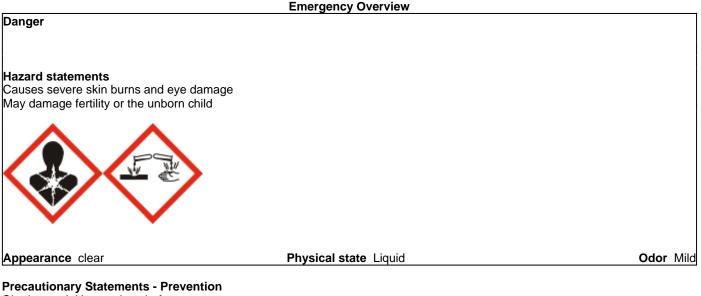
785-865-4200 800-535-5053

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 1B

Label elements



Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician 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: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

Burns from this product may not be immediately painful or evident. Exposures require fluoride specific treatment • May be harmful if swallowed

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%	Trade Secret
Water	7732-18-5	40 - 70	*
Glycolic Acid	79-14-1	10 - 30	*
sulfamic acid	5329-14-6	7 - 13	*
Ammonium Hydrogen Fluoride	1341-49-7	1 - 5	*
Quaternary amine compound	Proprietary	1 - 5	*
Ethoxylated alcohol	Proprietary	1 - 5	*
Methoxyacetic acid	625-45-6	0.1 - 1	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice	Immediate medical attention is required.
Eye contact	Keep eye wide open while rinsing. Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Do not rub affected area. Rinse the eyes with a calcium gluconate 1% solution.
Skin Contact	Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediately apply calcium gluconate gel 2.5% and massage into the affected area using rubber gloves;continue to massage while repeatedly applying gel until 15 minutes after pain is relieved.
Inhalation	Remove to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Ingestion	Immediate medical attention is required. Do NOT induce vomiting. Never give anything by

mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison control center immediately.

Self-protection of the first aider Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

SymptomsBurns from this product may not be immediately painful or evident. Exposures require
fluoride specific treatment. The product causes burns of eyes, skin and mucous
membranes.

Indication of any immediate medical attention and special treatment needed

Note to physiciansProduct is a corrosive material. Use of gastric lavage or emesis is contraindicated.
Possible perforation of stomach or esophagus should be investigated. Do not give
chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood
pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat
symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

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	Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.	
Environmental precautions		
Environmental precautions	Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.	
Methods and material for containment and cleaning up		
Methods for containment	Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.	
Methods for cleaning up	Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.	
	7. HANDLING AND STORAGE	
Precautions for safe handling		

Advice on safe handling Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.
Incompatible materials	Incompatible with strong acids and bases. Incompatible with oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ammonium Hydrogen Fluoride	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F
1341-49-7	-	TWA: 2.5 mg/m ³ dust	-
		(vacated) TWA: 2.5 mg/m ³	

NIOSH IDLH Immediately Dangerous to Life or Health

Other informationVacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962
(11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Brush on or apply at the lowest practical pressure. Do not atomize during application. Beware of wind drift. Proper work practices and planning should be utilized to avoid contact with workers, passersby, and non-masonry surfaces. Application equipment, scaffolding, swing stages and support systems must be constructed of acid resistant materials.

Individual protection measures, such as personal protective equipment

Eye/face protection	Tight sealing safety goggles. Face protection shield.	
Skin and body protection	Wear protective gloves and protective clothing.	
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.	
General Hygiene Considerations	When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance Color	Liquid clear light yellow	Odor Odor threshold	Mild No information available
<u>Property</u> pH	<u>Values</u> 2.9	Remarks • Method	
Melting point / freezing point °F Boiling point / boiling range	No information available -2 °C / 28 °F		
Flash point		Not Applicable	

41016 Enviro Klean® SafRestorer

Evaporation rate Flammability (solid, gas) Flammability Limit in Air Upper flammability limit: Lower flammability limit: Vapor pressure Vapor density Specific gravity Water solubility Solubility in other solvents Partition coefficient Autoignition temperature Decomposition temperature Kinematic viscosity No information available 1.11 completely soluble No information available No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Strong bases.

Incompatible materials

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Causes burns Corrosive	
Inhalation	Avoid breathing vapors or mists. May be harmful if inhaled.	
Eye contact	Causes serious eye damage.	
Skin Contact	Causes burns. Burns from this product may not be immediately painful or evident. Exposures require fluoride specific treatment.	
Ingestion	Do not taste or swallow. Harmful if swallowed.	

Component Information

Chemical name	LD50/Oral	LD50/Dermal	Inhalation LC50
Water	> 90 mL/kg (Rat)		
7732-18-5	,		
Glycolic Acid	= 1950 mg/kg (Rat)		= 7.7 mg/L (Rat) 4 h
79-14-1			
sulfamic acid	= 1450 mg/kg (Rat)		
5329-14-6			

Ammonium Hydrogen Fluoride 1341-49-7	= 130 mg/kg (Rat)		
Quaternary amine compound	= 580 mg/kg (Rat)		
Ethoxylated alcohol	= 1378 mg/kg (Rat)	> 2 g/kg (Rabbit)	

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Burns from this product may not be immediately painful or evident. Exposures require
	fluoride specific treatment.

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

Sensitization Germ cell mutagenicity Carcinogenicity	No information available. No information available. This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	3310 mg/kg
ATEmix (dermal)	160000 mg/kg mg/l
ATEmix (inhalation-dust/mist)	48.6 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Glycolic Acid	-	5000: 96 h Brachydanio rerio	-	-
79-14-1		mg/L LC50 static		
sulfamic acid	-	14.2: 96 h Pimephales	-	-
5329-14-6		promelas mg/L LC50 static		

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical name	Partition coefficient	
Glycolic Acid	-1.11	
79-14-1		

Other adverse effects

No information available

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	Do not reuse container.

14. TRANSPORT INFORMATION

DOT	Regulated
UN number	UN1760
UN proper shipping name	Corrosive liquid, n.o.s. (Hydroxyacetic & Sulfamic Acid)
Transport hazard class(es)	8
Packing group	II

15. REGULATORY INFORMATION

International Inventories	
TSCA	
DSL/NDSL	
Legend:	

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Complies Complies

US Federal Regulations

<u>SARA 313</u>

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Ammonium Hydrogen Fluoride - 1341-49-7	1341-49-7	1 - 5	1.0
SARA 311/312 Hazard Categories			
Acute health hazard	Yes		
Chronic Health Hazard	Yes		
Fire hazard	No		
Sudden release of pressure hazard	No		
Reactive Hazard	No		

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium Hydrogen Fluoride 1341-49-7	100 lb	-	-	Х

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

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

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
sulfamic acid	Х	-	-
5329-14-6			
Ammonium Hydrogen Fluoride	Х	X	Х
1341-49-7			
Formic acid	Х	X	Х
64-18-6			

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 3	Flammability 0	Instability 0	Physical and chemical properties -
HMIS_	Health hazards 3	Flammability 0	Physical hazards 0	Personal protection X
Prepared By Issuing Date Revision date Revision Note SDS sections updated	Regulator 07-Jan-2(19-Jul-20			

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Disclaimer

The information contained on the Safety Data Sheet has been compiled from data considered accurate. This data is believed to be reliable, but it must be pointed out that values for certain properties are known to vary from source to source. PROSOCO, Inc. expressly disclaims any warranty express or implied as well as any liability for any injury or loss arising from the use of this information or the materials described. This data is not to be construed as absolutely complete since additional data may be desirable when particular conditions or circumstances exist. It is the responsibility of the user to determine the best precautions necessary for the safe handling and use of this product for his unique application. This data relates only to the specific material designated and is not to be used in combination with any other material. Many federal and state regulations pertain directly or indirectly to the product's end use and disposal of containers and unused material. It is the purchaser's responsibility to familiarize himself with all applicable regulations.

End of Safety Data Sheet