SAFETY DATA SHEET

Issuing Date 19-Jan-2015 **Revision date** 20-Nov-2024 **Revision Number** 2.03

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Enviro Klean®
EK Restoration Cleaner

Other means of identification

Product Code(s) 41006
UN number UN2922

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 785-865-4200
NON-BUSINESS HOURS (INFOTRAC) 800-535-5053

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 3
Skin corrosion/irritation	Category 1 Sub-category C
Serious eye damage/eye irritation	Category 1

Label elements

Emergency Overview

Danger

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

Hazard statements
Harmful if swallowed
Toxic in contact with skin
Causes severe skin burns and eye damage

Appearance clear **Physical state** Liquid **Odor** No information available

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
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician
Specific treatment (see TREATMENT FOR HYDROFLUORIC ACID EXPOSURE on this label)
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 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
4% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%	Trade Secret
Water	7732-18-5	60 - 100	*
Ammonium Hydrogen Fluoride	1341-49-7	7 - 13	*
Hydroxyacetic Acid	79-14-1	1 - 5	*
1-Dedecanamine, N, N-dimethyl-,N-Oxide	1643-20-5	1 - 5	*
Cocamidopropyl betaine	61789-40-0	1 - 5	*
Ammonium hydroxide	1336-21-6	1 - 5	*

* 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. Remove contaminated clothing and shoes. Wash off immediately with plenty of water. 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	Call a physician or poison control center immediately. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth. Drink plenty of water.
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

Symptoms	Burns 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 physicians	Product 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	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Evacuate personnel to safe areas. 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. 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 Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment.

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 1341-49-7	TWA: 2.5 mg/m³ F	TWA: 2.5 mg/m³ F (vacated) TWA: 2.5 mg/m³	IDLH: 250 mg/m³ F TWA: 2.5 mg/m³ F
Ammonium hydroxide 1336-21-6	STEL: 35 ppm TWA: 25 ppm	TWA: 50 ppm TWA: 35 mg/m³ (vacated) STEL: 35 ppm (vacated) STEL: 27 mg/m³	IDLH: 300 ppm TWA: 25 ppm TWA: 18 mg/m³ STEL: 35 ppm STEL: 27 mg/m³

NIOSH IDLH Immediately Dangerous to Life or Health

Other information Vacated 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 Showers
Eyewash stations
Ventilation systems. 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	Liquid		
Appearance	clear	**Odor**	No information available
Color	amber	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	5.5	
Melting point / freezing point °F	No information available	
Boiling point / boiling range	No information available	
Flash point		Not Applicable
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	1.06	
Water solubility		
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	Not an explosive	
Oxidizing properties	Not Applicable	

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. Exposure to air or moisture over prolonged periods.

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 Corrosive

Inhalation Avoid breathing vapors or mists.

Eye contact Corrosive to the eyes and may cause severe damage including blindness.

Skin Contact May be fatal if absorbed through skin. Burns from this product may not be immediately painful or evident. Exposures require fluoride specific treatment.

Ingestion May be fatal if swallowed.

Component Information

Chemical name	LD50/Oral	LD50/Dermal	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)		
Ammonium Hydrogen Fluoride 1341-49-7	= 130 mg/kg (Rat)		
Hydroxyacetic Acid 79-14-1	= 1950 mg/kg (Rat)		= 3.6 mg/L (Rat) 4 h > 5.2 mg/L (Rat) 4 h
Cocamidopropyl betaine 61789-40-0	> 10000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	
Ammonium hydroxide 1336-21-6	= 350 mg/kg (Rat)		

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms The product causes burns of eyes, skin and mucous membranes. 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 No information available.
Germ cell mutagenicity No information available.
Carcinogenicity 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

Unknown acute toxicity 4% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 1051 mg/kg
ATEmix (dermal) 86108 mg/kg
ATEmix (inhalation-gas) 142450 mg/l
ATEmix (inhalation-dust/mist) 38.1 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydroxyacetic Acid 79-14-1	-	5000: 96 h Brachydanio rerio mg/L LC50 static	-	-
1-Dedecanamine, N, N-dimethyl-,N-Oxide 1643-20-5	-	134: 96 h Danio rerio mg/L LC50 semi-static	-	-
Cocamidopropyl betaine 61789-40-0	1.0 - 10.0: 72 h Desmodesmus subspicatus mg/L EC50	1.0 - 10.0: 96 h Brachydanio rerio mg/L LC50 2: 96 h Brachydanio rerio mg/L LC50 semi-static	-	6.5: 48 h Daphnia magna mg/L EC50
Ammonium hydroxide 1336-21-6	-	8.2: 96 h Pimephales promelas mg/L LC50	-	0.66: 48 h Daphnia pulex mg/L EC50 0.66: 48 h water flea mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

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

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** UN2922
- **UN proper shipping name** Corrosive, liquid, toxic, n.o.s. (Ammonium Bifluoride & Hydroxyacetic acid)
- **Transport hazard class(es)** 8
- **Subsidiary class** (6.1)
- **Packing group** III

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL Complies

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

US Federal Regulations

SARA 313
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	7 - 13	1.0
Ammonium hydroxide - 1336-21-6	1336-21-6	1 - 5	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
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	-	-	X
Ammonium hydroxide 1336-21-6	1000 lb	-	-	X

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 1341-49-7	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ
Ammonium hydroxide 1336-21-6	1000 lb	-	RQ 1000 lb final RQ RQ 454 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
Ammonium Hydrogen Fluoride 1341-49-7	X	X	X
Ammonium hydroxide 1336-21-6	X	X	X

16. OTHER INFORMATION

NFPA	**Health hazards** 3	**Flammability** 0	**Instability** 0	**Physical and chemical properties** -
HMIS	**Health hazards** 3	**Flammability** 0	**Physical hazards** 0	**Personal protection** X

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SDS sections updated 4 6 8

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