

MSDS: Scale-Kleen (an Urnex® Brand product)

This MSDS was prepared in accordance to REACH 1907/2006/EC, Article 31

1. Product and Company Identification

Product Name:	Scale-Kleen Activated Scale Remover (an Urnex® Brand product)
General Use:	For removal of mineral scale in food service equipment.
Product Description:	Blended white to off- white crystalline powder.
Manufacturer:	Urnex Brands, Inc. 170 Ludlow Street, Yonkers, NY 10705 USA Tel. 914-963-2042 email:Info@urnex.com
	Urnex Brands, Inc. 29 Harley Street, London, W1G 9QR, UK Tel. +44 020 7927 6881
Emergency Contact:	800-424-9300 (USA), 001-703-527-3887 (INTERNATIONAL COLLECT ACCEPTED)
Date Reviewed	September 24, 2009

2. Hazards Identification

This product is classified as an irritant.

Emergency Overview:	May cause skin, eye and mucous membrane irritation. Fire may produce corrosive fumes of hydrochloric acid and carbon monoxide.
Effects of Overexposure:	Irritation to skin, eye and mucous membrane irritation. If ingested, may cause gastric irritation reaction.
Eye:	May cause eye irritation and pain. Possible transient erosion of the cornea if not rinsed out with water completely.
Skin:	May cause mild skin irritation.
Ingestion:	May cause gastric tract irritation. Ingestion of more than a spoonful of the dry product may cause corrosion to the esophagus and absorption of toxic levels of aluminum.
Inhalation:	Highly irritating to respiratory tract. In case of fire or high temperature product can produce carbon monoxide and hydrochloric acid fumes. Carbon monoxide fumes can kill and hydrochloric acid fumes can be highly irritating, leading to pulmonary edema. Hydrochloric acid fumes has NIOSH and OSHA TWA exposure limits of ~ 5 ppm (7 mg/m ³) and IDLH of 100 ppm.

3. Composition/Information on Ingredients

Material	CAS#	LD-50-LC50 Mixture: LD50 (oral rat)
Citric Acid monohydrate	5949-29-1	3300 mg/kg
Aluminum chloride hexahydrate	7784-13-6	3311 mg/kg
Sipernat 22S	112926-00-8	>10,000 mg/kg

4. First Aid Measures

Eye:	In case of contact, flush with water for at least 15 minutes. Seek medical attention if irritation persists.
Skin:	Flush thoroughly with water and seek medical attention if irritation persists.
Ingestion:	If ingested, drink large quantities of water or milk or a dose of milk of magnesia or liquid antacid. Vomiting may have to be induced but should be directed by a physician or the Poison Control Center. Obtain medical attention. Clothing affected should be removed and washed before reuse.
Inhalation:	Remove to fresh air and provide oxygen if breathing is difficult.

5. Fire Fighting Measures

Flash Point:	Not Applicable
LEL:	Not Applicable
UEL:	Not Applicable
Extinguishing Media:	Water spray foam, carbon dioxide dry powder.
Firefighting Instructions:	Toxic HCL fumes and carbon monoxide fumes.
Fire Fighting Equipment	Must wear approved self-contained breathing apparatus.
Unusual Fire & Explosive Hazards:	Not Flammable, but can be oxidized by fire to produce carbon monoxide and hydrochloric acid fumes.
Special Remarks:	Risk of explosion in the presence of static discharge and mechanical impact.

6. Accidental Release Measures

Land Spill:	Sweep material with a shovel into a convenient waste disposal container.
Waste Disposal Methods:	Sweep material into a waste disposal container. Waste must be disposed of in accordance with federal, state and local environmental control regulations.

7. Handling and Storage

General Storage:	Store in a cool, dry environment. Protect from excessive heat. Keep container tightly closed. Keep in a well ventilated area. Product will actively absorb moisture from the air. When the product is wet, it will form an acid solution and protective chemical gloves should be used to handle material.
Storage Temperature:	Must be kept in a cool, dry, well ventilated storage place.
Other Precautions:	Avoid contact with skin and eyes. Wash thoroughly after handling.

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8. Exposure Controls / Personal Protection

General Hygiene:	No known hazards associated with this material when used as recommended.
Ventilation:	Use in a well ventilated area.
Respiratory:	Do not inhale. If product becomes airborne wear suitable dust mask. My lead to pulmonary edema.
Protective Clothing:	Wear chemically resistant or protective gloves especially when working with large quantities.
Eye Protection:	Avoid contact with eyes. Wear suitable splash goggles.
Other Protective:	Apron or lab coat.

Occupational Exposure Controls

Component	Value type	Control Parameters
Aluminum chloride hexahydrate	TWA (Time Weighted Average)	2 mg/m3
Sipernat 22S	TWA (Time Weighted Average)	6 mg/m3

Exposure Limits:

OSHA PEL: 15 mg/m3 total dust
OSHA PEL: 5 mg/m3 respirable dust
OSHA PEL: 2 mg/m3 as aluminum
ACGIH TLV: 2 mg/m3

9. Physical and Chemical Properties

Boiling Range:	NA
Vapor Density:	NA
Evaporation Rate:	NA
Solubility in Water:	Complete
Odor:	None
Density	2.05 g/cm3
PH 1%	2.5 – 3.5
Melting point:	~ 100 C
Appearance:	White to off- white crystalline powder.
Flash Point:	Non- Flammable

10. Reactivity

Stability:	Water crystallizations are lost at 100 C, making the aluminum chloride more likely to produce hydrochloric acid corrosive fumes at elevated temperatures. Citric acid begins to char at 338 C.
Hazardous Polymerization:	Will not polymerize.
Incompatibility:	Incompatible with alkalis. Reactive with moisture. Readily hydrolyzed by moisture, with liberation of hydrochloric acid gas. Aluminum oxide
Conditions to Avoid:	Moisture and heat. Make sure container or packets are sealed tightly.
Hazardous Decomposition/ Combustion	High temperature or fire can cause hydrochloric acid and carbon monoxide fumes.

11. Toxicological Information

Reported Human Effects:	No human data are available. See section 2 for hazards.
Reported Animal Effects:	See LD-50/LC-50 Studies on ingredients in section 3.

12. Ecological Information

No data are available on the adverse effects of this material on the environment. The manufacturer will fulfill all requests for any ecological data that is available on the various components of this product.

13. Disposal Considerations

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport Information

Proper Name:	Scale-Kleen Activated Scale Remover
Transport:	Not Regulated

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National Fire Protection Association (NFPA):

HEALTH	2	Moderate Hazard
FLAMMABILITY	0	Minimal Hazard
REACTIVITY	1	Slight Hazard
PERSONAL PROTECTION	F	Splash Goggles, Chemically resistant gloves, apron, dust respirator.

15. Regulatory Information

Inventory Status

United States (TSCA)	Aluminum chloride hexahydrate TSCA 8 (b). See section 8.
European Union (EINECS)	Aluminum chloride hexahydrate. See section 8.

Labeling

Hazard Symbol:	Xi Irritant
Product Contains:	Citric acid monohydrate, aluminum chloride hexahydrate and sipernat.
R-Sentences	
	R22 Harmful if swallowed.
	R36/37/38 Irritating to eyes and skin and respiratory system.
	R41 Risk of serious eye damage
S-Sentences	
	S2 Keep out of the reach of children.
	S22 Do not breathe dust.
	S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S28 After contact with skin, wash immediately with plenty of water.
	S46 If swallowed, seek medical advice immediately and show this container or label.

16. Other Information

This product is for sale and use by professional personal only.

Keep out of reach of children. It is a violation of federal law to use this product in a manner inconsistent with its label.

NOTE: The information in this MSDS is obtained from sources which are believed to be reliable. However, the accuracy or completeness thereof is not guaranteed. This information is furnished without warranty, expressed or implied. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, Urnex Brands, Inc. assumes no liability for the loss and damage incurred from the proper or improper use of this product.