



ARCAL CHEMICALS, INC.

SAFETY DATA SHEET **Steel Brite**

Revised July 15, 2015

1. IDENTIFICATION OF THE PRODUCT AND MANUFACTURER

Steel Brite

Arcal Chemicals, Inc.
223 Westhampton Avenue
Capitol Heights, MD 20743

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Emergency: Chemtrec 800-424-9300

2. HAZARDS IDENTIFICATION

WARNING



Corrosive and toxic.

If contaminated clothing is allowed to remain in contact with skin for many minutes or hours, serious damage may be caused by calcium fluoride precipitation in blood vessel capillaries and gangrene may result.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Hazardous Component</u>	<u>CAS #</u>	<u>Conc.</u>	<u>OSHA PEL</u>	<u>ACGIH TWA</u>
Hydrofluoric Acid	7664-39-3	<8 %	3 ppm	3 ppm
Citric Acid	77-92-9	<6%	NA	NA

4. FIRST AID MEASURES

Eye contact: Flush with clean clear water for 15 minutes or until irritation subsides. If irritation persists, seek medical advice.

Skin contact: Remove any contaminated clothing and flush with plenty of cool water. Apply 0.13% benzalkonium chloride solution or 2.5% calcium gluconate gel if available.

Inhalation: If overcome from inhalation, remove subject from exposure and seek medical attention.

Ingestion: Have the subject drink large amounts of water as quickly as possible to dilute the acid. Do not induce vomiting. Do not give emetics or baking soda.

5. FIRE-FIGHTING MEASURES

NFPA FIRE HAZARDS:	HEALTH	FLAMMABILITY	REACTIVITY
	4 (serious)	0 (insignificant)	2 (moderate)

Steel Brite is over 70% water and unlikely to burn. (A small amount of surfactant will produce carbon oxides if burned.) If Steel Brite is heated by nearby fire or heat, vapors of hydrofluoric acid will be produced and should be avoided. Granulated limestone (agricultural lime) may be used to neutralize acid runoff from containers which are punctured or overfilled with water spray.

6. ACCIDENTAL RELEASE MEASURES

In case Steel Brite is spilled, treat the area with an alkaline material like agricultural lime, carefully scoop up the result and dispose in a plastic container with hazardous waste. Lime will precipitate the fluoride ion and neutralize acid. Sodium bicarbonate may also be used but produces a soluble fluoride which is toxic and is more difficult to dispose.

7. HANDLING AND STORAGE

Store Steel Brite in a cool dry place where moisture will not collect on containers and where heat from equipment or the sun will not expose the product to temperature extremes.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Where ventilation is insufficient to insure low personal exposure, see Section 3 for Permissible Exposure Limit (PEL) and Time Weighted Average (TWA) and use appropriate monitoring equipment. Use of Steel Brite in confined space requires breathing apparatus to prevent inhalation of any mist thrown off by the foam which develops during the cleaning process. Splash-proof safety goggles and chemically resistant gloves (without tears, pinholes or other signs of wear) are highly recommended to protect personnel. A waterproof apron protects against splashes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Purple liquid, can foam if shaken

Odor: Acidic - caution; avoid breathing vapors

Density: 8.7 pounds per gallon

Boiling point: 212 F

Volatile Organic Content: (VOC): <50 g/L

Solubility in water: Completely soluble

Flash point: none; non-burnable

pH <3

10. STABILITY AND REACTIVITY

Steel Brite is not subject to polymerization. Avoid inadvertent contact with metals, and with any oxidizable material which could generate foam. The major hazard is the corrosive action of hydrogen fluoride, so store Steel Brite away from materials which could be affected by exposure to corrosive vapors.

11. TOXICOLOGICAL INFORMATION

The primary irritant effect is on the skin (including the eye), especially from prolonged contact. The minimum lethal dose of fluoride (ingested) is currently estimated to be 5 mg/kg (5 milligrams of fluoride for each kilogram of (human) body weight). From <http://fluoridealert.org/studies/acute01/> Other ingredients are diluted and present minimal hazard. The complete product has not been tested.

12. ECOLOGICAL INFORMATION

Do not allow liquid product to reach ground water, water course or sewer.

13. DISPOSAL CONSIDERATIONS

Waste product is hazardous (US EPA: due to fluoride and acidity). Do not dispose with residential garbage or allow product to reach ground water or sewer.

14. TRANSPORT INFORMATION

ID No.	Proper Shipping Name	Hazard Class	Packing Group
UN 1790	Hydrofluoric Acid Solution <7%	8, (6.1)	II

15. REGULATORY INFORMATION

TSCA: All ingredients are listed.

16: OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.