



SAFETY DATA SHEET

1. PRODUCT AND MANUFACTURER IDENTIFICATION

Product Name: **STEEL BRITE**

Manufacturer Name & Address:

Arcal Chemicals, Inc.
223 West Hampton Avenue
Capitol Heights, MD 20743

General Information:

(Tel) 301-336-9300
(Fax) 301-336-6597

Emergency CHEMTREC:

In case of chemical emergencies
800-424-9300 (within USA)
703-527-3887 (outside of USA)

2. HAZARDS IDENTIFICATION



Emergency Overview: **SIGNAL WORD: DANGER:**

Skin contact, eye contact and inhalation are possible. If product comes into contact with the eyes, serious burns will occur. Contact with skin will cause burns and irritation. Continued contact, as from contaminated clothing, may result in capillary blockage and gangrene. Ingestion will damage oral and gastric membranes. Inhalation of mist will cause nasal irritation; deeper penetration will harm the respiratory system.

Exposure Routes: Eyes, skin, ingestion, inhalation

Eye contact: **H318:** Causes serious eye damage.

Skin Contact: **H311:** Toxic in contact with skin. Contact with skin will cause burns and irritation. Continued contact, as from contaminated clothing, may result in capillary blockage and gangrene.

Ingestion: **H304:** May be fatal if swallowed and enters airways. Ingestion will damage oral and gastric membranes.

Inhalation: **H332:** Harmful if inhaled. Inhalation of mist will cause nasal irritation; deeper penetration will harm the respiratory system.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components	CAS Number	Concentration	ACGIH TWA	OSHA TWA
Hydrofluoric Acid	7664-39-3	<8 %	3 ppm	3 ppm
Citric Acid	77-92-9	<6%	N/A	N/A

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Remove contact lenses, if present. Continue rinsing. Get medical attention immediately.

Skin Contact: Remove any contaminated clothing and flush with plenty of cool water. If 0.13% benzalkonium chloride solution or 2.5% calcium gluconate gel is available, the water rinse may be limited to 5 minutes, with soaks of gel applied as soon as the rinsing is stopped.

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. Have victim rinse mouth thoroughly with water. If vomiting occurs naturally, have victim rinse mouth with water again. **IMMEDIATELY** transport victim to an emergency care facility.

Inhalation: Move victim to fresh air. Give artificial respiration **ONLY** if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing **AND** no pulse. Oxygen administration may be beneficial in this situation but should only be administered by personnel trained in its use. Obtain medical attention **IMMEDIATELY**.

5. FIRE-FIGHTING MEASURES

Flash point: None

Special firefighting procedures: Not normally a fire hazard. Product is over 70% water and unlikely to burn. (A small amount of surfactant will produce carbon oxides if burned.) If product 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.

NFPA Flammable Liquids Classification

Health	Flammability	Reactivity
4	0	2

6. ACCIDENTAL RELEASE MEASURES

USE PERSONAL PROTECTION RECOMMENDED IN SECTION 8

Environmental precautions: For release to land, or storm water runoff, contain discharge by constructing dykes or applying inert absorbent; for release to water, utilize damming and/or water diversion to minimize the spread of contamination. Notify applicable government authority if release is reportable or could adversely affect the environment. Replace damaged containers immediately.

Clean-up methods: In case of spill, treat the area with an alkaline material like agricultural lime and 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. Protective clothing for skin and eye protection should be worn to protect against corrosive materials.

7. HANDLING AND STORAGE

Handling: Containers exposed to heat may be under internal pressure. These should be cooled and carefully vented before opening. A face shield and apron should be worn. Ventilation Requirements: Use with proper ventilation.

Storage: Store 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 / PERSONAL PROTECTION

SEE SECTION 3 FOR EXPOSURE LIMITS.

Exposure controls: Contact with skin, eyes and mucous membranes can contribute to the overall exposure. Consider measures to prevent absorption by these routes.

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- Respiratory 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 product in confined space requires breathing apparatus to prevent inhalation of vapors and mist.
- Eye protection:** Use full face-shield and chemical safety goggles when there is potential for contact. Approved acid-resistant monogoggles are required.
- Skin protection:** 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 is recommended to protect against splashes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid (can foam if shaken)
Color:	Purple
Odor:	Acidic
Boiling point/range:	100° C / 212° F
Flash point:	None
Solubility in water:	Complete
Volatile Organic Content (VOC):	<50 g/L
Density:	8.7 lbs. / gal
pH:	<3

10. STABILITY AND REACTIVITY

- Stability:** Product is not subject to polymerization.
- Incompatible materials:** Avoid inadvertent contact with active metals, and with any oxidizable material which could generate foam. The major hazard is the corrosive action of acid, so store away from materials which could be affected by exposure to corrosive vapors or mist.
- Conditions to avoid:** Extreme heat and cold. Environments which are not well ventilated.

11. TOXICOLOGICAL INFORMATION

The primary irritant effect is on the skin (including the eye), especially from prolonged contact. Other ingredients are diluted and present minimal hazard. The complete product has not been tested.

12. ECOLOGICAL

Harmful to aquatic life at low concentrations. Toxicity is primarily associated with pH. Acidic soil conditions can develop with product present. Higher than normal toxic heavy metal concentrations can then occur in ground and surface waters.

13. DISPOSAL CONSIDERATIONS

- Recommended method of disposal:** 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. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

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14. TRANSPORT INFORMATION

APPLIES TO ALL MODES OF TRANSPORT

Proper shipping name: HYDROFLUORIC ACID SOLUTION
Hazard class or division: 8 (6.1)
Identification number: UN1790
Packing group: II

15. REGULATORY INFORMATION

TSCA All constituents of this product are included on the TSCA inventory.

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate and are not a product specification. No warranty, either expressed or implied is made. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.