1 – PRODUCT IDENTIFICATION

2 – HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE/MIXTURE: Acute Toxicity Oral (2) Acute Toxicity Dermal (2) Acute Toxicity Inhalation (3) Skin Corrosion (1A) Serious Eye Damage (1) Respiratory Sensitizer (1A) Skin Sensitizer (1) Germ Cell Mutagenicity (2) Target Organ Toxicity- Single Exposure (1) Target Organ Toxicity - Repeated Exposure (1)



PRECAUTIONARY STATEMENTS:

PREVENTION:	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product Do not get in eyes, on skin, or on clothing Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area Do not breathe dust/fume/gas/mist/vapours/spray. Wear respiratory protection Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not
	handle until all safety precautions have been read and
	understood.
STORAGE:	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Specific treatment (see First AID Section on this label). Rinse mouth IF ON SKIN: Wash with plenty of water and soap. Immediately call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician If skin irritation or a rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF exposed or concerned: Get medical advice/attention. IF exposed: Call a POISON CENTER or doctor/physician Get Medical advice/attention if you feel unwell Store locked up. Store in a well ventilated place. Keep container tightly closed. Dispose of container and contents in accordance with local
	regulations.
	rogulations.

3 – COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT

Water Hydrofluoric Acid 2-Butoxyethanol Citric Acid Sodium alpha olefin sulfonate

C.A.S. NUMBER 7732-18-5 7664-39-3 111-76-2

77-92-9

68439-57-6

CONCENTRATION 78-94 5-15

5-15 1-5 1-5

4 – FIRST-AID MEASURES

	If this product is inhaled, get immediate medical attention! DO NOT INDUCE VOMITING! Drink a large quantity of water, followed by either milk or a minimum of 2 teaspoons of milk of magnesia. Do not attempt to give liquids to an unconscious person. Get immediate medical attention!
EYES:	Inhalation, skin absorption, or ingestion.
SKIN (DERMAL):	Rinse completely from hands, face and clothing. Flush skin with
	fresh water for at least 15 minutes. Treat skin with Iced aqueous solution of Benzalkonium Chloride 0.13%. This can be purchased from most drug stores as "Zephiran" concentrate(Winthrop). To make solution, dilute "Zephiran" concentrate 1 ounce to 1 gallon of water. Get immediate hospital emergency treatment. DO NOT apply this solution to the eyes.
NOTE TO PHYSICIAN:	. Calcium Gluconate gel(2.5%) may also be used to treat skin exposures.
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5 – FIRE-FIGHTING MEASURES

FLASHPOINT: This product is non-flammable.

EXTINGUISHING MEDIA: This product is non-flammable. Use extinguishing media suitable for materials already burning.

SPECIAL FIRE FIGHTING PROCEDURES:.....Firefighters working in areas where this product is present should be equipped with an approved, fully enclosed SCBA with a plastic hood window.

UNUSUAL FIRE AND EXPLOSION HAZARDS:.....None known.

6 – ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES:..... Dike to prevent spillage into streams or sewer systems. Consult local, state and federal authorities. WASTE DISPOSAL:..... As recommended by local, state and federal authorities.

7 – HANDLING and STORAGE

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION	I:If necessary, use an OSHA respirator for acid gases.	approved
PROTECTIVE CLOTHING:	 Nitrile, vinyl or neoprene gloves. Splash goggle Protective outerwear and boots. 	es and face shield.
ADDITIONAL MEASURES:	. Under normal use according to label instruction protection should not be necessary. Wear eye product is likely to splash.Do not place this pro unmarked container! Keep away from children is slippery.	protection if duct in an
INGREDIENT	C.A.S. NUMBER	PEL

Water	7732-18-5	No limits established
Hydrofluoric Acid	7664-39-3	3 ppm, 6 ppm STEL
2-Butoxyethanol	111-76-2	20 ppm TLV, 25 ppm PEL
Citric Acid	77-92-9	No limits established
Sodium alpha olefin sulfonate	68439-57-6	No limits established

9 – PHYSICAL / CHEMICAL PROPERITES

APPEARANCE & ODOR:..... Blue transparent liquid, with a sharp, irritating odor.

ODOR THRESHOLD:N/A
pH: 1.5
MELTING POINT: 210 degrees F.
FREEZING POINT: N/A
BOILING POINT: 210 degrees F.
BOILING POINT RANGE: N/A
FLASHPOINT: This product is non-flammable.
EVAPORATION RATE: N/A
FLAMMABILITY (solid/gas): N/A
EXPLOSION LIMITS:N/A
VAPOR PRESSURE:N/A
VAPOR DENSITY (AIR=1): N/A
SPECIFIC GRAVITY: Greater than 1.
SOLUBILITY IN WATER: Completely soluble.
PARTITION COEFFICIENT: N/A
AUTO-IGNITION TEMPERATURE:N/A
DECOMPOSITION TEMPERATURE:N/A
VISCOSITY: Water thin

10 – STABILITY and REACTIVITY

INCOMPATIBILITY: Ferrous metals, aluminum, zinc, magnesium and any other acid sensitive materials.

11 – TOXICOLOGICAL INFORMATION

*Determined using the additivity formula for mixtures (GHS Purple Book, 3.1.3.6)

12 – ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND DISTRIBUTION: N/A

13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: As recommended by local, state and federal authorities.

14 – TRANSPORTATION INFORMATION

15 - REGULATIONS

Contents of this MSDS comply with the OSHA Hazard Communication Standard 29CFR 1910.1200

16 – OTHER INFORMATION