

## 1. PRODUCT AND COMPANY IDENTIFICATION

**NAME: BUFFERED SOUR**

**USE: DELIMER**

**LABEL BRAND: U S CHEMICAL**

**MSDS # 4432433 CODE # 4432071**

**U S CHEMICAL, 316 HART STREET, WATERTOWN, WI 53094 USA**

**MEDICAL EMERGENCY #: 1-866-923-4913 USA**

**SPILL EMERGENCY #: 1-800-424-9300 USA**

**PRODUCT INFORMATION #: 1-800-558-9566 (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)**

**INTERNET ADDRESS: [WWW.USCHEMICAL.COM](http://WWW.USCHEMICAL.COM)**

**REVIEWED 1-13-12 REVISED 1-13-12 SECTION REVISED: 1**

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW:

DANGER. CORROSIVE. CAUSES SEVERE SKIN, EYE, AND DIGESTIVE TRACT BURNS. BURNS MAY NOT BE IMMEDIATELY OBVIOUS OR PAINFUL. HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN. DO NOT MIX WITH BLEACH OR ANY OTHER PRODUCT OR CHEMICAL. CAN REACT TO RELEASE CHLORINE GAS.

**PRINCIPLE ROUTES OF EXPOSURE:** EYES, SKIN, INGESTION, INHALATION.



### POTENTIAL ACUTE HEALTH EFFECTS

**EYES:** CORROSIVE. CAUSES EYE BURNS. MAY CAUSE PERMANENT DAMAGE INCLUDING BLINDNESS.

**SKIN:** CORROSIVE. CAUSES SKIN BURNS. MAY CAUSE PERMANENT DAMAGE.

**HYDROFLUORIC ACID WILL PENETRATE SKIN AND ATTACK TISSUES AND BONE.**

**INHALATION:** CORROSIVE. INHALATION OF MISTS MAY CAUSE CORROSIVE EFFECTS TO NOSE, THROAT, AND RESPIRATORY SYSTEM. INHALATION OF HYDROFLUORIC ACID (HF) FUMES MAY CAUSE SWELLING IN THE RESPIRATORY TRACT UP TO 24 HOURS AFTER EXPOSURE.

**INGESTION:** CORROSIVE. MAY CAUSE BURNS TO MOUTH, THROAT AND STOMACH.

HARMFUL OR FATAL IF SWALLOWED.

**MEDICAL CONDITIONS AGGRAVATED:** NONE KNOWN.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	CAS #	% BY WT	LC50/LD50
AMMONIUM FLUORIDE	12125-01-8	7.0 – 13.0	N.A.V.
HYDROFLUORIC ACID/HYDROGEN FLUORIDE	7664-39-3	5.21	N.A.V.
<b>STATE RIGHT TO KNOW: THIS PRODUCT CONTAINS:</b>			
WATER/7732-18-5, AMMONIUM FLUORIDE/12125-01-8, HYDROGEN FLUORIDE/7664-39-3			

#### 4. FIRST AID MEASURES

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**EYES:** IMMEDIATELY FLUSH THE EYES WITH PLENTY OF WATER FOR AT LEAST 15-20 MINUTES. TAKE THE VICTIM TO A HOSPITAL AS SOON AS POSSIBLE. IF POSSIBLE, APPLY ICE WATER COMPRESSES DURING TRANSPORT.

**SKIN:** IMMEDIATELY REMOVE ALL CONTAMINATED CLOTHING. IMMEDIATELY FLUSH THE AFFECTED AREA FOR 5 MINUTES WITH LARGE AMOUNTS OF WATER. WHILE THE VICTIM IS BEING RINSED WITH WATER, HAVE SOMEONE CALL TO ARRANGE MEDICAL TREATMENT. IF THE EXPOSURE IS TO THE EYES, FACE, GROIN, OR COVERS A LARGE AREA, CALL 911. FOR SMALLER EXPOSURES (I.E. A FEW DROPS ON THE SKIN), CALL A PHYSICIAN OR POISON CONTROL CENTER. RESPONDERS MUST WEAR GLOVES WHEN TREATING VICTIMS TO PREVENT SECONDARY HYDROFLUORIC ACID BURNS TO THEIR HANDS. IMMEDIATELY AFTER FLUSHING WITH WATER START MASSAGING 2.5% CALCIUM GLUCONATE GEL INTO THE BURN SITE. APPLY THE GEL EVERY 15 MINUTES AND MASSAGE UNTIL PAIN/REDNESS CEASE OR PROFESSIONAL MEDICAL CARE IS AVAILABLE.

**INHALATION:** IMMEDIATELY MOVE THE VICTIM TO FRESH AIR. CALL A POISON CENTER OR PHYSICIAN FOR FURTHER TREATMENT ADVICE. IF PERSON IS NOT BREATHING OR IS EXPERIENCING RESPIRATORY DIFFICULTIES, IMMEDIATELY CALL 911.

**INGESTION:** DO NOT INDUCE VOMITING. IF ABLE TO SWALLOW, OFFER SIPS OF WATER OR MILK. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

**ADMINISTER FIRST AID TREATMENT AS STATED ABOVE, THEN CALL 1-866-923-4913 OR CONTACT PHYSICIAN FOR FURTHER MEDICAL INSTRUCTIONS.**

**NOTE TO PHYSICIAN:** CALL 1-866-923-4913 FOR ASSISTANCE WITH THE MANAGEMENT OF EXPOSURES.

#### 5. FIRE-FIGHTING MEASURES

**FLAMMABILITY:** NO HAZARD.

**FLASH POINT:** N.A.P.

**PRODUCTS OF COMBUSTION:** SEE SECTION 10.

**SUITABLE EXTINGUISHING MEDIA:** FOR FIRES IN AREA, USE APPROPRIATE MEDIA. FOR EXAMPLE: WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE, OR ALCOHOL FOAM.

**SPECIFIC HAZARDS:** PRODUCT MAY REACT WITH CERTAIN METALS. SEE 10.

**SPECIFIC METHODS:** NORMAL FIRE FIGHTING PROCEDURES MAY BE USED.

#### 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** PUT ON PERSONAL PROTECTIVE EQUIPMENT. SEE SECTION 8.

**SPILL RESPONSE:** EVACUATE UNPROTECTED PERSONNEL FROM AREA. WEAR PROPER PROTECTIVE EQUIPMENT INCLUDING RUBBER BOOTS. VENTILATE AREA IF NEEDED. STOP LEAK IF YOU CAN DO SO WITHOUT RISK. DIKE OR DAM LARGE SPILLS. AVOID DIRECT DISCHARGE TO SEWER AND SURFACE WATERS. PUMP OR SCOOP TO CONTAINER OR SOAK UP WITH NON-COMBUSTIBLE INERT ABSORBENT MATERIALS. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES. BE CAREFUL AS SPILLS ARE SLIPPERY.

#### 7. HANDLING AND STORAGE

**HANDLING:** FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID INHALATION, INGESTION, AND CONTACT WITH SKIN, EYES AND CLOTHING. DO NOT TASTE OR SWALLOW. DO NOT BREATH VAPORS OR MISTS. REMOVE AND WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE RE-USE. PRODUCT RESIDUE MAY REMAIN IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER. WASH THROUGHLY AFTER HANDLING.

**STORAGE:** ROTATE STOCK REGULARLY. KEEP CONTAINER CLOSED WHEN NOT IN USE. AVOID TEMPERATURES BELOW 35°F OR ABOVE 120°F. PROTECT FROM FREEZING. STORAGE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT IS RECOMMENDED. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF CHILDREN'S REACH.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**EXPOSURE LIMITS:**

HYDROFLUORIC ACID = 3 PPM CEILING LIMIT AS F (ACGIH), 3 PPM TWA AS F (OSHA)

**ENGINEERING CONTROLS:** NONE REQUIRED. GENERAL ROOM VENTILATION IS TYPICALLY ADEQUATE.**PERSONAL PROTECTION****EYES:** CHEMICAL-SPASH GOGGLES AND AN EYE WASH STATION.**HANDS:** CHEMICAL RESISTANT GLOVES: RUBBER OR NEOPRENE. LONG TYPE IF NEEDED.**RESPIRATORY:** IF MISTS/VAPORS ARE NOT CONTROLLED BY VENTILATION, WEAR SUITABLE RESPIRATOR.**FEET:** WEAR PROTECTIVE FOOTWEAR DURING SPILL & WHEN EXPOSURE IS POSSIBLE.**BODY:** IF MAJOR EXPOSURE IS POSSIBLE, WEAR FULL-COVER PROTECTIVE CLOTHING INCLUDING APRON.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**COLOR:** COLORLESS**FLASH POINT:** N.A.P.**ODOR:** NONE**UEL:** N.A.P.**pH CONCENTRATE:** LESS THAN 4.0 (ACIDIC)**LEL:** N.A.P.**pH @ 2500 PPM SOLUTION:** N.A.P.**EVAPORATION RATE:** N.A.P.**pH @ USE DILUTION:** N.A.P.**ODOR THRESHOLD:** N.A.P.**PHYSICAL STATE:** LIQUID**VAPOR PRESSURE:** N.A.P.**SPECIFIC GRAVITY:** 1.060**VAPOR DENSITY:** N. AP.**VISCOOSITY:** NON-VISCOUS**COEFF. OIL/WATER:** N.A.P.**BOILING POINT:** N.A.P.**WATER SOLUBILITY:** COMPLETE**MELTING POINT:** N.A.P.**OTHER:** SLIGHTLY HAZY

## 10. STABILITY AND REACTIVITY

**STABLE:** YES**CONDITIONS TO AVOID:** AVOID TEMPERATURES BELOW 35°F OR ABOVE 120°F.**MATERIALS TO AVOID:** AVOID MIXING DIRECTLY WITH ANY OTHER CLEANING PRODUCT. AVOID BASES AND BLEACH. AVOID VARIOUS METALS (ALUMINUM, ZINC, TIN, BRASS OR BRONZE) WHICH CAN GENERATE FLAMMABLE HYDROGEN GAS. MIX ONLY WITH WATER.**DECOMPOSITION PRODUCTS:** FIRE OR MIXING WITH INCOMPATIBLE MATERIALS MAY PRODUCE OXIDES OF PHOSPHORUS, CHLORINE GAS, HYDROGEN GAS AND OTHER FUMES.**POSSIBILITY OF HAZARDOUS REACTIONS:** AVOID MIXING WITH BASES AND BLEACH.

## 11. TOXICOLOGICAL INFORMATION

**ACUTE EFFECTS:** CORROSIVE. SEE SECTION 2.**CHRONIC EFFECTS:** FLUOROSIS. NO REPORTABLE CARCINOGENS, MUTAGENS, SENSITIZERS, SYNERGISTIC MATERIALS, TERATOGENS, OR REPRODUCTIVE TOXINS.**LC50/LD50:** N.A.V.**TARGET ORGANS:** EYES, SKIN, RESPIRATORY SYSTEM.**OTHER TOXIC EFFECTS:** NONE KNOWN.

**12. ECOLOGICAL INFORMATION**

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NOT AVAILABLE.

**13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:** UNDILUTED PRODUCT IS REGULATED UNDER ENVIRONMENTAL AND TRANSPORTATION LAWS AS A CORROSIVE WASTE (RCRA CLASS D002). DISPOSE OF ACCORDING TO ALL FEDERAL, STATE, PROVINCIAL AND LOCAL LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

**14. TRANSPORT INFORMATION**

**DOT/TDG:** UN2817, AMMONIUM HYDROGENDIFLUORIDE SOLUTION, 8 (6.1), II

**DOT RQ:** N.A.P.

**DOT ERG #:** 154

**15. REGULATORY INFORMATION**

**EPA CERCLA RQ:** N.A.P.

**EPA REGISTERED:** NO

**OSHA HAZARDOUS:** YES

**PHOSPHORUS CONTENT:** 0.00%

**PROPOSITION 65:** N.A.P.

**SARA 311/312 HAZARDS:** ACUTE

**SARA 313 CHEMICALS:** YES

**STATE RIGHT TO KNOW:** SEE SECTION 3 FOR CHEMICAL NAMES.

**TSCA INVENTORY STATUS:** ALL COMPONENTS ARE LISTED ON THE INVENTORY.

**VOC:** 0.00% CALCULATION METHOD USED IS BASED ON CALIFORNIA ARB STANDARD.

**16. OTHER INFORMATION**

**NFPA RATING:** HEALTH-3/FLAMMABILITY-0/REACTIVITY-0/SPECIAL HAZARD-N.A.P.

**HMIS RATING:** HEALTH-3/FLAMMABILITY-0/REACTIVITY-0/PERSONAL PROTECTION-SEE 8.0

N.AV. = NOT AVAILABLE

N.A.P. = NOT APPLICABLE

PREPARED BY: HEALTH AND SAFETY

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