

## 1. PRODUCT AND COMPANY IDENTIFICATION

**NAME: BRIGADE**  
**USE:** MECHANICAL DISH DETERGENT  
**MSDS # 101793B**

US CHEMICAL, 316 HART STREET, WATERTOWN, WI 53094 USA  
 MEDICAL EMERGENCY #: 1-800-851-7145 EXT. 075 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 3-29-10 REVISED 3-29-10 SECTION REVISED: 1

## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:**  
 DANGER. CORROSIVE TO EYES. CAUSES EYE BURNS AND SKIN IRRITATION.  
 HARMFUL OR FATAL IF SWALLOWED.  
**PRINCIPLE ROUTES OF EXPOSURE:** EYES, SKIN, INGESTION, INHALATION.

**POTENTIAL ACUTE HEALTH EFFECTS**  
**EYES:** CORROSIVE. CAUSES EYE BURNS. MAY CAUSE PERMANENT DAMAGE INCLUDING BLINDNESS WITHOUT IMMEDIATE FIRST AID TREATMENT.  
**SKIN:** MAY BE SEVERELY IRRITATING TO SKIN.  
**INHALATION:** INHALATION OF DUST MAY CAUSE IRRITATION TO NOSE, THROAT, AND RESPIRATORY SYSTEM.  
**INGESTION:** CORROSIVE. MAY CAUSE BURNS TO MOUTH, THROAT AND STOMACH.  
**MEDICAL CONDITIONS AGGRAVATED:** NONE KNOWN.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	CAS #	% BY WT	LC50/LD50
SODIUM METASILICATE	6834-92-0	7.0 – 13.0	SEE 11.
SODIUM DICHLORO-S-TRIAZINETRIONE	2893-78-9	1.0 – 5.0	N.AV.
SODIUM CARBONATE	497-19-8	40.0 – 70.0	N.AV.

STATE RIGHT TO KNOW: THIS PRODUCT CONTAINS:  
 SODIUM CARBONATE/497-19-8, SODIUM CHLORIDE/7647-14-5,  
 SODIUM TRIPOLYPHOSPHATE/7758-29-4, SODIUM METASILICATE/6834-92-0,  
 SODIUM DICHLORO-S-TRIAZINETRIONE/2893-78-9

#### 4. FIRST AID MEASURES

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**EYES:** FLOOD WITH LUKEWARM (NOT HOT) WATER Poured from a large glass 2 or 3 inches from eyes. Remove contacts. Have patient blink as much as possible while flooding the eyes. Continue for at least 15 minutes.

**SKIN:** REMOVE CONTAMINATED CLOTHES, THEN FLOOD WITH WATER FOR 15 MINUTES.

**INHALATION:** MOVE VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF PATIENT IS NOT BREATHING.

**INGESTION:** DO NOT INDUCE VOMITING. IF PATIENT IS CONSCIOUS AND CAN SWALLOW, ADMINISTER MILK OR WATER.

**ADMINISTER FIRST AID TREATMENT AS STATED ABOVE, THEN CALL 1-800-851-7145 EXT. 075 OR CONTACT PHYSICIAN FOR FURTHER MEDICAL INSTRUCTIONS.**

**NOTE TO PHYSICIAN:** CALL 1-800-851-7145 EXT. 075 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:** N.A.P.

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

#### 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** SEE SECTION 8.

**SPILL RESPONSE:** EVACUATE UNPROTECTED PERSONNEL FROM AREA. WEAR PROPER PROTECTIVE EQUIPMENT. CAREFULLY SWEEP UP AND SHOVEL INTO DRY CONTAINERS WITHOUT RAISING DUST. COVER CONTAINERS AND MOVE CONTAINERS OUT OF SPILL AREA. AFTER SPILL COLLECTION, FLUSH 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 INGESTION AND CONTACT WITH EYES. DO NOT TASTE OR SWALLOW.

REMOVE AND WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE RE-USE.

PRODUCT RESIDUE MAY REMAIN ON OR IN EMPTY CONTAINERS.

HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

**STORAGE:** ROTATE STOCK REGULARLY. KEEP CONTAINER CLOSED WHEN NOT IN USE. AVOID TEMPERATURES ABOVE 120°F. 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:**

SODIUM DICHORO-S-TRIAZINETRIONE = 0.5 PPM TWA AS CHLORINE, 1 PPM STEL AS CHLORINE (ACGIH),  
1 PPM CEILING LIMIT (OSHA)

**ENGINEERING CONTROLS:** NONE REQUIRED. GENERAL ROOM VENTILATION IS ADEQUATE.

**PERSONAL PROTECTION**

**EYES:** SPLASH PROOF SAFETY GLASSES, SAFETY GOGGLES AND AN EYE WASH STATION.

**HANDS:** CHEMICAL RESISTANT GLOVES: RUBBER OR NEOPRENE.

**RESPIRATORY:** WEAR DUST MASK IF HANDLING CREATES AIR-BORNE DUST.

**FEET:** WEAR PROTECTIVE FOOTWEAR DURING SPILL CLEAN-UP.

**BODY:** IF MAJOR EXPOSURE IS POSSIBLE, WEAR PROTECTIVE CLOTHING.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**COLOR:** WHITE

**ODOR:** SLIGHT CHLORINE

**pH CONCENTRATE:** N.AP.

**pH @ 2500 PPM SOLUTION:** 11.1 (BASIC)

**pH @ USE DILUTION:** N.AV.

**PHYSICAL STATE:** GRANULAR POWDER

**SPECIFIC GRAVITY:** N.AP.

**VISCOSITY:** N.AP.

**BOILING POINT:** N.AP.

**MELTING POINT:** N.AP.

**FLASH POINT:** N.AP.

**UEL:** N.AP.

**LEL:** N.AP.

**EVAPORATION RATE:** N.AP.

**ODOR THRESHOLD:** N.AP

**VAPOR PRESSURE:** N.AP

**VAPOR DENSITY:** N.AP.

**COEFF. OIL/WATER:** N.AP.

**WATER SOLUBILITY:** MODERATE

**OTHER:** N.AP.

**10. STABILITY AND REACTIVITY**

**STABLE:** YES

**CONDITIONS TO AVOID:** AVOID TEMPERATURES ABOVE 120°F AND HIGH HUMIDITY TO PREVENT CAKING.

**MATERIALS TO AVOID:** AVOID MIXING DIRECTLY WITH ANY OTHER CLEANING PRODUCT. AVOID OXIDIZING AGENTS. MIX ONLY WITH WATER BELOW 150°F.

**DECOMPOSITION PRODUCTS:** FIRE OR MIXING WITH INCOMPATIBLE MATERIALS MAY PRODUCE OXIDES OF CARBON AND OTHER TOXIC OR IRRITATING FUMES.

**POSSIBILITY OF HAZARDOUS REACTIONS:** AVOID MIXING DIRECTLY WITH ACIDS.

**11. TOXICOLOGICAL INFORMATION**

**ACUTE EFFECTS:** SEE SECTION 2.

**CHRONIC EFFECTS:** NONE KNOWN. NO REPORTABLE CARCINOGENS, MUTAGENS, SENSITIZERS, SYNERGISTIC MATERIALS, TERATOGENS, OR REPRODUCTIVE TOXINS.

**LC50/LD50:** SODIUM METASILICATE: 800 MG/KG ORAL-RAT LD50

**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:** COMPLY WITH 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:** NOT REGULATED  
**DOT RQ:** N.AP.  
**DOT ERG #:** N.AP.

**15. REGULATORY INFORMATION**

**EPA CERCLA RQ:** N.AP.  
**EPA REGISTERED:** NO  
**EPA VOC:** 0.00%  
**EPA VOC RULE:** THIS PRODUCT DOES NOT CONTAIN VOLATILE ORGANIC COMPOUNDS.  
**OSHA HAZARDOUS:** YES  
**PHOSPHORUS CONTENT:** SEE LABEL  
**PROPOSITION 65:** N.AP.  
**SARA 311/312 HAZARDS:** ACUTE  
**SARA 313 CHEMICALS:** N.AP.  
**STATE RIGHT TO KNOW:** SEE SECTION 3 FOR STATE RTK CHEMICAL NAMES.  
**TSCA INVENTORY STATUS:** ALL COMPONENTS ARE LISTED ON THE INVENTORY.  
**WHMIS CLASS:** D-2B

**16. OTHER INFORMATION**

**NFPA RATING:** HEALTH-3/FLAMMABILITY-0/REACTIVITY-0/SPECIAL HAZARD-N.AP.  
**HMIS RATING:** HEALTH-3/FLAMMABILITY-0/REACTIVITY-0/PERSONAL PROTECTION-SEE 8.0

N.AV. = NOT AVAILABLE    N.AP. = NOT APPLICABLE

PREPARED BY: HEALTH AND SAFETY

**NOTICE TO READER**

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