

## 1. PRODUCT AND COMPANY IDENTIFICATION

**NAME: CIRCULATE**  
**USE: DELIMER**  
**LABEL BRAND: NUGGET**  
**MSDS # 5366052B CODE # 060480**

US 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 7-17-13 REVISED 7-17-13 SECTION REVISED: 1

## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:**  
 DANGER. CORROSIVE. CAUSES EYE AND SKIN BURNS.  
 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:** CORROSIVE. CAUSES SKIN BURNS. MAY CAUSE PERMANENT DAMAGE. HARMFUL CONTACT MAY NOT CAUSE IMMEDIATE PAIN.

**INHALATION:** CORROSIVE. INHALATION OF MISTS MAY CAUSE CORROSIVE EFFECTS TO NOSE, THROAT, AND RESPIRATORY SYSTEM.

**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 |
|----------------------|----------|-------------|-----------|
| UREA HYDROCHLORIDE   | 506-89-8 | 10.0 – 30.0 | SEE 11.0  |

STATE RIGHT TO KNOW: THIS PRODUCT CONTAINS:  
 WATER/7732-18-5, UREA HYDROCHLORIDE/506-89-8

**4. FIRST AID MEASURES**

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**EYES:** IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR 15-20 MINUTES, KEEPING EYELIDS OPEN. **SKIN:** IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR 15-20 MINUTES. REMOVE AND WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE RE-USE.

**IF SWALLOWED:** RINSE MOUTH. GIVE A CUPFUL OF WATER OR MILK. THEN IMMEDIATELY CONTACT A PHYSICIAN OR POISON CENTER. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

**INHALATION:** IF BREATHING IS AFFECTED, REMOVE TO FRESH AIR.

**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:**

SEE SECTION 8. CORROSIVE. PUT ON PERSONAL PROTECTIVE EQUIPMENT.

**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. REMOVE AND WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE RE-USE. PRODUCT RESIDUE MAY REMAIN IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

**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:** N.A.V.**ENGINEERING CONTROLS:** NONE REQUIRED. GENERAL ROOM VENTILATION IS TYPICALLY ADEQUATE.**PERSONAL PROTECTION****EYES:** SPLASH PROOF SAFETY GLASSES, SAFETY 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:** TYPICALLY NOT NEEDED. WEAR BOOTS DURING SPILL & WHEN EXPOSURE IS POSSIBLE.**BODY:** IF MAJOR EXPOSURE IS POSSIBLE, WEAR FULL-COVER PROTECTIVE CLOTHING.**9. PHYSICAL AND CHEMICAL PROPERTIES****COLOR:** GREEN**ODOR:** NONE**pH CONCENTRATE:** LESS THAN 2.0 (ACIDIC)**pH @ 2500 PPM SOLUTION:** N.A.P.**pH @ USE DILUTION:** N.A.P.**PHYSICAL STATE:** LIQUID**SPECIFIC GRAVITY:** 1.055**VISCOSITY:** NON-VISCOUS**BOILING POINT:** N.A.P.**MELTING POINT:** N.A.P.**FLASH POINT:** N.A.P.**UEL:** N.A.P.**LEL:** N.A.P.**EVAPORATION RATE:** N.A.P.**ODOR THRESHOLD:** N.A.P.**VAPOR PRESSURE:** N.A.P.**VAPOR DENSITY:** N. AP.**COEFF. OIL/WATER:** N.A.P.**WATER SOLUBILITY:** COMPLETE**OTHER:** N.A.P.**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:** NONE KNOWN. NO REPORTABLE CARCINOGENS, MUTAGENS, SENSITIZERS, SYNERGISTIC MATERIALS, TERATOGENS, OR REPRODUCTIVE TOXINS.**LC50/LD50:** UREA HYDROCHLORIDE ACUTE ORAL (LD50) = 1121 MG/KG [RAT]**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:** UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (UREA HYDROCHLORIDE), 8, III, LTD. QTY.

**DOT RQ:** N.AP.

**DOT ERG #:** 153

**15. REGULATORY INFORMATION**

**EPA CERCLA RQ:** N.AP.

**EPA REGISTERED:** NO

**OSHA HAZARDOUS:** YES

**PHOSPHORUS CONTENT:** 0.00%

**PROPOSITION 65:** N.AP.

**SARA 311/312 HAZARDS:** ACUTE

**SARA 313 CHEMICALS:** NO

**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.

**WHMIS CLASS:** E

**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

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