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SECTION I - GENERAL INFORMATION

CHEMICAL NAME & SYNONYMS  
 N/A TRADE NAME: CHEM-AQUA 999 SYNONYMS  
 CHEMICAL FAMILY: ALKALINE LIQUID FORMULA: X<- MIXTURE  
 MANUFACTURER'S NAME: CHEMAQUA-DIV. OF ADVANTAGE SYSTEMS  
 ADDRESS (NUMBER, STREET, CITY, STATE & ZIP CODE):  
 BOX 152170  
 IRVING, TEXAS 75015  
 PREPARED BY: M DICKSON/CHEMIST PRODUCT CODE NUMBER: 1748 EMERGENCY TELEPHONE NUMBER: 214-438-1381

SECTION II- HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS.

CHEMICAL NAME (INGREDIENTS) :  
 SODIUM NITRITE  
 HAZARD ---> IRRITANT\*\* TLV ---> 10MG/M3 1. PEL ---> 15MG/M3 2.  
 STEL (TWA)\* ---> NOT EST. CAS# ---> 7632-00-0  
 \*\*OXIDIZER/TOXIC  
 CHEMICAL NAME (INGREDIENTS) :  
 SODIUM METABORATE  
 HAZARD ---> IRRITANT TLV ---> 10MG/M3 1. PEL ---> 15MG/M3 2.  
 STEL (TWA)\* ---> NOT EST. CAS# ---> 7775-19-1

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SECTION III - PHYSICAL DATA PAGE : 02

BOILING PT. (FAHRENHEIT)	212	SPEC GRAVITY (H2O=1)	1.10
VAPOR PRESSURE (MM HG)	18	COLOR	WATER-WHITE
VAPOR DENSITY (AIR=1)	0.6	ODOR	PUNGENT
PH @ 100%	11	CLARITY	OPAQUE
PERCENT VOLATILE BY VOLUME (%)	66	EVAPORATION RATE (BU AC = 1)	0.10
SOLUBILITY IN WATER	COMPLETE		
VISCOSITY	NON-VISCOUS		

SECTION IV - FIRE AND EXPLOSION HAZARD

FLASH POINT (METHOD USED) NONFLAM. T. C. C. FLAMMABLE LIMITS N/A LEL N/A UEL N/A  
 EXTINGUISHING MEDIA "ALCOHOL" X<- FOAM X<- DRY X<- CO2 X<- CHEMICAL X<- WATER X<- OTHER X<- SPRAY  
 SPECIAL FIRE FIGHTING PROCEDURES  
 PRODUCT IS NON-FLAMMABLE. USE EXTINGUISHING MEDIA APPROPRIATE TO THE SURROUNDING FIRE. WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS.  
 UNUSUAL FIRE & EXPLOSION HAZARDS  
 SODIUM NITRITE EXPLODES WHEN HEATED TO 1000 F AND IT WILL SUPPLY OXYGEN TO STIMULATE OR ACCELERATE THE COMBUSTION OF ORGANIC AND OTHER COMBUSTIBLE MATERIALS.  
 NFPA HAZARD RATING (0=INSIGNIFICANT; 1=SLIGHT; 2=MODERATE; 3=HIGH; 4=EXTREME):  
 2 <-HEALTH 0 <-FLAMMABILITY 1 <-REACTIVITY <-SPECIAL

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE :  
 NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.  
 EFFECTS OF OVEREXPOSURE  
 - ACUTE - (SHORT TERM EXPOSURE)  
 IRRITATING TO SKIN CAUSING ITCHING AND REDNESS.

(CONTINUED)

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SECTION V - HEALTH HAZARD DATA

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IRRITATING TO EYES CAUSING REDNESS, DISCOMFORT, TEARING AND CORNEAL DAMAGE. LARGE ORAL DOSE CAN CAUSE NAUSEA, VOMITING AND DIARRHEA. INGESTION CAUSES THE FORMATION OF METHGLOBINEMIA WHICH INCLUDES CYANOSIS (BLUE-TINGED SKIN AFTER 15-25% METHGLOBIN IN BLOOD IS REACHED), EUPHORIA, HEADACHE, FLUSHED FACE, LIGHT-HEADEDNESS, ATAXIA, WEAKNESS, RAPID HEARTBEAT, LABORED BREATHING, NAUSEA, VOMITING, MENTAL CONFUSION, BLURRING OF VISION, REDUCED BLOOD PRESSURE, COLLAPSE, COMA AND POSSIBLY DEATH. 24 HOURS AFTER INGESTION, ERYTHEMA, MACULAR SKIN RASH AND DIZZINESS MAY OCCUR. INHALATION OF MISTS CAN CAUSE IRRITATION OF THE RESPIRATORY TRACT MARKED BY COUGHING AND SNEEZING.

- CHRONIC - (LONG TERM EXPOSURE) PROLONGED CONTACT MAY CAUSE IRRITATION TO ANY AREAS EXPOSED. TARGET ORGANS: EYES AND SKIN. CONDITIONS AGGRAVATED BY EXPOSURE: PRE-EXISTING BONE MARROW OR CARDIO-VASCULAR DISEASES.

WHILE THERE IS NO PRIMARY ROUTE OF ENTRY OF THIS PRODUCT INTO THE BODY, THE PRIMARY ROUTE OF EXPOSURE IS SKIN AND EYE CONTACT.

PRIMARY ROUTE OF ENTRY: <-- INHALATION <-- INGESTION <-- ABSORPTION

EMERGENCY & FIRST AID PROCEDURES

INHALATION: REMOVE FROM THE AREA TO FRESH AIR. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION DEVELOPS OR IF BREATHING BECOMES DIFFICULT.

EYE CONTACT: IMMEDIATELY RINSE THE EYES WITH WATER. REMOVE ANY CONTACT LENSES, AND CONTINUE FLUSHING THE EYES FOR AT LEAST 15 MINUTES. HOLD THE EYELIDS APART TO ENSURE RINSING OF THE ENTIRE SURFACE OF THE EYES AND LIDS WITH WATER. GET IMMEDIATE MEDICAL ATTENTION.

SKIN CONTACT: WASH AFFECTED AREAS WITH LARGE AMOUNTS OF SOAP AND WATER FOR 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. GET IMMEDIATE MEDICAL ATTENTION. WASH CLOTHING AND CLEAN SHOES BEFORE REUSE.

INGESTION: IMMEDIATELY GIVE 3 TO 4 GLASSES OF WATER AND INDUCE VOMITING BY PLACING FINGER OR BLUNT OBJECT ON THE BACK OF VICTIM'S TONGUE. GIVE FLUIDS UNTIL VOMITUS IS CLEAR. GET IMMEDIATE MEDICAL ATTENTION. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.

NOTES TO PHYSICIAN: TREAT FOR ALKALINE EXPOSURE OR INGESTION.

SECTION VI - TOXICITY INFORMATION

PRODUCT CONTAINS CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN BY: IARC <--YES NTP <--YES OSHA <--YES ACGIH <--YES OTHER <--YES X<--NO X<--NO X<--NO X<--NO X<--NO SODIUM NITRITE

(CONTINUED)

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SECTION VI - TOXICITY INFORMATION

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ORL-RAT LD50: 85MG/KG 3. MMD-DMI 1000PPM 3. CVT-RAT PAR 100MG/KG/5D-I 3. EYE-RBT 500MG/24H SEVERE 3. SODIUM METABORATE ORL-MAN LD50: 1000 MG/KG 3. ORL-RAT LD50: 2660 MG/KG 3. SCI-RBT LDLD: 150 MG/KG 3.

SECTION VII - REACTIVITY DATA

STABILITY | X<--STABLE | <--UNSTABLE | CONDITIONS TO AVOID

N/A

INCOMPATIBILITY (MATERIALS TO AVOID) CYANIDES, REDUCING AGENTS, COMBUSTIBLE MATERIALS, ELEMENTAL ZIRCONIUM (HOT), ACIDS, AMIDES, AMMONIUM SALTS AND THIOCYANATES. HAZARDOUS DECOMPOSITION PRODUCTS OXIDES OF NITROGEN AND CAUSTIC RESIDUES

HAZARDOUS | WILL NOT | MAY | CONDITIONS TO AVOID | X<--OCCUR | <--OCCUR

POLYMERIZATION: N/A

SECTION VIII - SPILL OR LEAK PROCEDURES

STEPS TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED STOP LEAKS. CONTAIN SPILL. PICK UP SPILL WITH ABSORBANT MATERIAL AND PLACE IN LABELED CONTAINER FOR DISPOSAL. FLUSH AREA WITH WATER.

WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

NEUTRALIZING AGENT: N/A

SECTION IX - SPECIAL PROTECTION INFORMATION

REQUIRED VENTILATION: MECHANICAL (GENERAL) VENTILATION IS USUALLY ADEQUATE.

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SECTION IX - SPECIAL PROTECTION INFORMATION PAGE : 05

RESPIRATORY PROTECTION  
USE NIOSH APPROVED MASK IF MISTING OCCURS.

PROTECTIVE GLOVES  
RUBBER GLOVES

EYE PROTECTION  
SAFETY GLASSES OR CHEMICAL GOGGLES

OTHER PROTECTION  
GENERAL WORK CLOTHS AND SHOES

SECTION X - STORAGE AND HANDLING INFORMATION

STORAGE TEMPERATURE  
100 F. <--MAX 35 F. <--MIN INDOOR HEATED REFRIGERATED OUTDOOR  
X > 35 F.

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING  
STORE AT MODERATE TEMPERATURES. AVOID  
SKIN OR EYE CONTACT.

OTHER PRECAUTIONS  
KEEP OUT OF REACH OF CHILDREN. READ  
ENTIRE LABEL BEFORE USING PRODUCT.

SECTION XI - REGULATORY INFORMATION

CHEMICAL NAME C.A.S. NUMBER UPPER % LIMIT  
N/A

THOSE INGREDIENTS LISTED ABOVE ARE SUBJECT TO THE REPORTING REQUIREMENTS OF  
313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF  
1986 AND 40 CFR PART 372.

IF USE (USE EXEMPTION) APPEARS UNDER UPPER % LIMIT END USERS ARE EXEMPT  
FROM NOTIFICATION BECAUSE THE PRODUCT IS USED AND LABELED FOR ROUTINE  
JANITORIAL WORK, OR THE PRODUCT IS USED AND LABELED FOR FACILITY GROUNDS  
MAINTENANCE (SUCH AS FERTILIZERS AND HERBICIDES), OR THE PRODUCT IS USED AND  
LABELED FOR MAINTAINING MOTOR VEHICLES.

WARNING: THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) KNOWN TO THE STATE OF  
CALIFORNIA TO CAUSE (1) CANCER OR (2) BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM:  
NONE

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SECTION XII - TRANSPORTATION \* (FOR FUTURE USE) PAGE : 06

APPLICABLE REGULATIONS  
<--49 CFR <--IMCC <--TARIFF 6 D <--IATA <--MILITARY AIR (AFR 71-4)

SHIPPING NAME

HAZARD CLASS

LABELS

UNIT CONTAINER

DOT SPS CONTAINER

AEROSOL PROPELLANT(S)

ID NUMBER | REPORT QTY  
LIMITED QTY

NET EXPLOSIVE WT.

SECTION XIII - REFERENCES

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS AND  
BIOLOGICAL EXPOSURE INDICES, ACGIH, 1991-1992.
2. OSHA PEL
3. DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, 7TH ED., N. IRVING SAX  
AND RICHARD J. LEWIS, SR.

\*SHORT TERM EXPOSURE LIMIT (TWA) LISTED AS FINAL RULE LIMITS PUBLISHED IN THE  
FEDERAL REGISTER/VOL. 54 NO. 12, 1-19-89

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED  
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CHEMAQUA DIV. OF ADVANTAGE SYSTEMS ASSUMES NO RESPONSIBILITY  
FOR PERSONAL INJURY OR PROPERTY DAMAGE CAUSED BY THE USE, STORAGE  
OR DISPOSAL OF THE PRODUCT IN A MANNER NOT RECOMMENDED ON THE  
PRODUCT LABEL. USERS ASSUME ALL RISKS ASSOCIATED WITH SUCH  
UNRECOMMENDED USE, STORAGE, OR DISPOSAL OF THE PRODUCT.

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