

MATERIAL SAFETY DATA SHEET: CB-3939

Section I - General Information

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Date of Issue:

9/23/2003 12:00:00 AM

Supersedes:

2/23/1999 12:00:00 AM

Chemical Name & Synonyms:

N/A

Trade Name & Synonyms:

CB-3939

Chemical Family:

BROMINE/CHLORINE COMPOUND

Formula is a mixture: [√]

Manufacturer Name:

CHEM-AQUA, INC

Manufacturer Address:

BOX 152170
IRVING, TEXAS 75015

Prepared By:

L Boynton/Chemist

Product Code Number:

4630

Emergency Phone Number:

800-424-9300

Section II - Hazardous Ingredients

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

<u>Chemical Name (Ingredients)</u>	<u>Hazard</u>	<u>TLV</u>	<u>PEL</u>	<u>STEL</u>	<u>CAS #</u>
1,3-DICHLORO-5,5-DIMETHYLHYDANTOIN	CORROSIVE	0.2MG/M3 1	0.2MG/M3 2	0.4MG/M3 1	118-52-5
1,3-DICHLORO-5-ETHYL-5-METHYLHYDANTOIN	CORROSIVE	0.2MG/M3 3	N/E 2.	N/E	89415-87-2
SODIUM CHLORIDE	IRRITANT	N/E 1.	N/E 2.	N/E	7647-14-5
3-BROMO-1-CHLORO-5,5-DIMETHYLHYDANTOIN	CORROSIVE	0.2MG/M3 3	N/E 2.	N/E	126-06-7
1-BROMO-3-CHLORO-5,5-DIMETHYLHYDANTOIN	CORROSIVE	0.2MG/M3 3	N/E 2.	N/E	16079-88-2

Section III - Physical Data

Boiling Point (°F): N/A	Specific Gravity (H₂O=1): 1.6
Vapor Pressure (mm Hg): N/A	Color: OFF-WHITE
Vapor Density (Air=1): N/A	Odor: PUNGENT
pH @ 100%: 3.6 @1%	Clarity: OPAQUE
% Volatile by Volume: NIL	Evaporation Rate (BuAc=1): <1
H₂O Solubility: APPRECIABLE	Viscosity: BRIQUETTES

Section IV - Fire and Explosion Hazard

Flash Point: 287°F
Flammable Limits: N/E
LEL: N/E

Method Used: C.O.C.
UEL: N/E
Aerosol Level (NFPA 30B): N/A

Extinguishing Media:

<input checked="" type="checkbox"/> Foam	<input type="checkbox"/> Alcohol Foam	<input type="checkbox"/> CO ₂
<input checked="" type="checkbox"/> Dry Chemical	<input checked="" type="checkbox"/> Water Spray	<input type="checkbox"/> Other

NFPA 704 Hazard Rating:

4-Extreme	Health: 3
3-High	Flammability: 1
2-Moderate	Instability: 1
1-Slight	Special: OX
0-Insignificant	

Special Fire Fighting Procedures:

FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. COOL FIRE-EXPOSED CONTAINERS WITH WATER SPRAY TO PREVENT BURSTING. AVOID HOSE STREAMS OR ANY METHOD WHICH WILL CREATE DUST CLOUDS.

Unusual Fire and Explosion Hazards:

AS WITH ALL ORGANIC DUSTS, FINE PARTICLES SUSPENDED IN AIR IN CRITICAL PROPORTIONS AND IN THE PRESENCE OF AN IGNITION SOURCE MAY IGNITE AND/OR EXPLODE. DUST MAY BE SENSITIVE TO IGNITION BY ELECTROSTATIC DISCHARGE, ELECTRICAL ARCS, SPARKS, WELDING TORCHES, CIGARETTES, OPEN FLAME OR OTHER SIGNIFICANT HEAT SOURCES. AS A PRECAUTION, IMPLEMENT STANDARD SAFETY MEASURES FOR HANDLING FINELY DIVIDED ORGANIC POWDERS RECOMMENDED IN SECTION X.

Section V - Health and Hazard Data

Threshold Limit Value:

0.2 MG/M3 (1&3)

Effects of Overexposure:

Acute: (Short Term Exposure)

EYE CONTACT: CORROSIVE. CAUSES BURNS, CORNEAL DAMAGE, AND POSSIBLE BLINDNESS. SKIN CONTACT: CORROSIVE. CAUSES BURNS AND POSSIBLE DEEP ULCERATIONS OR SCARRING. MAY CAUSE ALLERGIC SKIN REACTION SEEN AS DELAYED SKIN RASH WHICH MAY BE FOLLOWED BY BLISTERING, SCALING, AND OTHER SKIN EFFECTS. INHALATION: DUST CAUSES SEVERE IRRITATION TO THE LUNGS WITH COUGHING, SNEEZING, CHEST PAIN, POTENTIAL TISSUE DAMAGE, AND SYSTEMIC ABSORPTION. INGESTION: MAY CAUSE IRRITATION WITH POSSIBLE NAUSEA, VOMITING, AND DIARRHEA. MAY CAUSE BURNS TO THE MOUTH, THROAT, ESOPHAGUS, AND STOMACH. SYMPTOMS MAY INCLUDE VOMITING OF BLOOD. BLOOD LOSS THROUGH DAMAGED TISSUE CAN LEAD TO LOW BLOOD PRESSURE, SHOCK, AND MAY BE FATAL.

Chronic: (Long Term Exposure)

MAY CAUSE SKIN SENSITIZATION IN SOME INDIVIDUALS. CHRONIC SKIN CONTACT MAY PROMOTE DERMATITIS AND OIL ACNE. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA, AND DERMATITIS. TARGET ORGANS: BLOOD-FORMING ORGANS AND LUNGS. THE PRIMARY ROUTES OF EXPOSURE ARE SKIN AND EYE CONTACT.

Primary Routes of Entry

Inhalation Ingestion Absorption

Emergency First Aid Procedures:

Inhalation:

IF DUST IS INHALED, REMOVE FROM THE AREA TO FRESH AIR. HAVE THE PERSON BLOW THEIR NOSE TO REMOVE THE SUBSTANCE FROM THE NASAL PASSAGES AND KEEP FROM INHALING FURTHER. IF NOT BREATHING, CLEAR THE AIRWAY AND START MOUTH-TO-MOUTH ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

Eye Contact:

IMMEDIATELY RINSE THE EYES WITH WATER. REMOVE ANY CONTACT LENSES AND CONTINUE FLUSHING 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:

IMMEDIATELY WIPE AWAY MATERIAL WITH A CLOTH WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. WASH THOROUGHLY WITH LARGE AMOUNTS OF SOAP AND WATER FOR AT LEAST 15 MINUTES. GET IMMEDIATE MEDICAL ATTENTION. DISCARD OR CLEAN CLOTHING AND SHOES.

Ingestion:

GIVE 3 TO 4 GLASSES OF WATER, BUT DO NOT INDUCE VOMITING. IF VOMITING OCCURS, GIVE FLUIDS AGAIN. SEEK MEDICAL ATTENTION IF DISCOMFORT OCCURS.

Notes to Physician:

THERE IS NO SPECIFIC ANTIDOTE. TREAT THE PATIENT SYMPTOMATICALLY. PROBABLE MUCOSAL DAMAGE MAY CONTRAINDICATE THE USE OF GASTRIC LAVAGE.

Section VI - Toxicity Information

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:

IARC NTP OSHA ACGIH Other

VOC CONTENT: 0% BY WEIGHT; 0% BY VOLUME; 0 G/L

PRODUCT MIXTURE

ORL-RAT LD50: 468-477 MG/KG 3.

SKN-RBT LD50: >2000 MG/KG 3.

SKN-GPG: SENSITIZER 3.

SKN-RBT SDT: CORROSIVE TO BOTH ABRADED AND UNABRADED SKIN 3.

EYE-RBT: SEVERE IRRITANT AND CORROSIVE 3.

Section VII - Reactivity Data

Stability

Stable Unstable

Conditions to Avoid:

AVOID CONTACT WITH OR STORAGE AROUND COMBUSTIBLE MATERIALS AND HIGH TEMPERATURES.

Hazardous Polymerization

Will not occur May occur

Conditions to Avoid:

N/A

Incompatibility (Materials to Avoid):

ACIDS, ALKALIES, MOISTURE, AND OXIDIZABLE MATERIAL.

Hazardous Decomposition Products:

OXIDES OF CARBON AND NITROGEN; FUMES OF CHLORINE AND BROMINE.

Section VIII - Spill Or Leak Procedures

Steps to be Taken if Material is Released or Spilled:

ELIMINATE IGNITION SOURCES OF ELECTRICAL, STATIC, OR FRICTIONAL SPARKS. VENTILATE THE CONTAMINATED AREA AND AVOID CREATING DUSTY CONDITIONS. WEAR APPROPRIATE PROTECTIVE CLOTHING. TRANSFER SOLID USING NON-SPARKING EQUIPMENT INTO A PROPERLY LABELED CONTAINER FOR REUSE OR DISPOSAL. IF NECESSARY WASH AREA WITH WATER AND PICK UP WASH WATER FOR DISPOSAL. PREVENT PRODUCT FROM CONTAMINATING SOIL OR FROM ENTERING SEWAGE AND DRAINAGE SYSTEMS AND BODIES OF WATER.

Waste Disposal Method(s):

DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

Neutralizing Agent:

USE DILUTE, ALKALINE SODIUM BISULFITE OR THIOSULFATE SOLUTIONS. ADD CAUTIOUSLY WHILE MIXING. WEAR APPROPRIATE PROTECTIVE CLOTHING.

Section IX - Special Protection Information

Required Ventilation:

LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM OPERATIONS THAT CAN GENERATE DUSTY CONDITIONS. LOCAL VENTILATION IS PREFERRED, BECAUSE IT PREVENTS DISPERSION INTO WORK AREAS BY CONTROLLING IT AT ITS SOURCE.

Respiratory Protection:

WEAR A NIOSH/MSHA APPROVED RESPIRATOR WITH A DUST CARTRIDGE FILTER IF EXPOSURE CAN EXCEED TLV/PEL. <10X PEL, USE AN N95 QUARTER OR HALF MASK RESPIRATOR; <50X PEL, USE A FULL FACE RESPIRATOR EQUIPPED WITH N95 FILTERS; <200X PEL, USE A POWDERED AIR PURIFYING RESPIRATOR (POSITIVE PRESSURE) WITH N95 FILTERS; >200X PEL, USE A FULL FACE, TYPE C SUPPLIED AIR RESPIRATOR (CONTINUOUS FLOW MODE).

Glove Protection:

NEOPRENE OR NITRILE RUBBER GLOVES SHOULD BE WORN WHEN HANDLING. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR HAND PROTECTION, 29 CFR 1910.138.

Eye Protection:

CHEMICAL GOGGLES AND A FACE SHIELD SHOULD BE WORN WHEN HANDLING. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR EYE AND FACE PROTECTION, 29 CFR 1910.133.

Other Protection:

WEAR PROTECTIVE CLOTHING WHEN HANDLING. A SAFETY SHOWER AND AN EYEWASH STATION SHOULD BE AVAILABLE.

Section X - Storage and Handling Information

Storage Temperature

Max: 120°F Min: 35°F

Storage Conditions

Indoors Outdoors Heated Refrigerated

Precautions to be Taken in Handling and Storing:

ALWAYS STORE MATERIAL IN A COOL, DRY AREA IN ITS ORIGINAL CONTAINER. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. AVOID CREATING DUSTY CONDITIONS. SEAL BROKEN CONTAINERS IMMEDIATELY. ALTHOUGH THE RISK OF A DUST EXPLOSION IS LOW, IMPLEMENT THE FOLLOWING SAFETY MEASURES AS A PRECAUTION: 1) BOND, GROUND, AND PROPERLY VENT CONVEYORS, DUST CONTROL DEVICES, AND OTHER TRANSFER EQUIPMENT; 2) ELIMINATE IGNITION SOURCES (SPARKS, STATIC BUILDUP, EXCESSIVE HEAT); 3) PROHIBIT FLOW OF POWDER OR DUST THROUGH NON-CONDUCTIVE DUCTS, VACUUM HOSES, OR PIPES, ETC.; ONLY USE GROUNDED, ELECTRICALLY CONDUCTIVE TRANSFER LINES WHEN PNEUMATICALLY CONVEYING PRODUCT; 4) STAY BELOW THE MINIMUM EXPLOSIVE CONCENTRATION BY PREVENTING ACCUMULATION OF DUST (USE WELL-VENTILATED CONDITIONS, VACUUM SPILLS PROMPTLY, CLEAN OVERHEAD HORIZONTAL SURFACES); 5) EXERCISE CARE WHEN EMPTYING CONTAINERS, SWEEPING, MIXING, OR DOING OTHER TASKS WHICH CAN CREATE DUST; 6) USE INERT GAS BLANKETING WHEN USE CONDITIONS OR PROCESSES WARRANT. EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUES WHICH MAY EXHIBIT THE HAZARDS OF THE PRODUCT. TO AVOID POSSIBLE EXPLOSION DO NOT PRESSURIZE, CUT, WELD, SOLDER, DRILL, GRIND, OR EXPOSE EMPTY

CONTAINERS TO HEAT, HOT SURFACES, SPARKS, OR OPEN FLAMES.

Other Precautions:

KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE LABEL BEFORE USING THE PRODUCT. FOLLOW THE LABEL DIRECTIONS.

Section XI - Regulatory Information

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Upper % Limit</u>
None.		

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.

Please call 1-800-527-9919 for additional information if you are a California customer. This MSDS is not intended for users in the state of California.

Section XII - References

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, ACGIH, 2003.
2. OSHA PEL. 3. VENDOR'S MSDS. ALL THE COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (TSCA) AND ARE EITHER LISTED ON THE TSCA INVENTORY OR OTHERWISE EXEMPTED FROM LISTING. IRR:IRRITANT, FLAM/FLAMM:FLAMMABLE, COMB:COMBUSTIBLE, CORR:CORROSIVE CARC:CARCINOGENIC, TOX:TOXIC, N/A:NOT APPLICABLE, N/E:NOT ESTABLISHED, COC:CLEVELAND OPEN CUP, PMCC:PENSKY-MARTIN CLOSED CUP, TCC:TAGLIABUE CLOSED CUP, LEL:LOWER EXPLOSION LIMIT, UEL:UPPER EXPLOSION LIMIT, NFPA:NATIONAL FIRE PROTECTION ASSOCIATION, IARC:INTERNATIONAL AGENCY FOR THE RESEARCH ON CANCER, NTP:NATIONAL TOXICOLOGY PROGRAM, OSHA:OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION, ACGIH:AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS, TLV:THRESHOLD LIMIT VALUE, PEL:PERMISSIBLE EXPOSURE LIMIT, STEL:SHORT-TERM EXPOSURE LIMIT, MLD:MILD, MOD:MODERATE, SEV:SEVERE, MUT:MUTAGENIC, ASPHYX:ASPHYXIAN, PNO:PARTICLES (INSOLUBLE) NOT OTHERWISE SPECIFIED, SDT:STANDARD DRAIZE TEST, ORL:ORAL, IHL:INHALATION, HMN:HUMAN

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