



MURSATT CHEMICALS LIMITED
11 REGALCREST COURT
WOODBIDGE; ONTARIO, CANADA; L4L 8P3
(905)-850-8444

PRODUCT: BROM-N-8 TABLETS

CODE: MUR0018

Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER/SUPPLIER..... MURSATT CHEMICALS LIMITED
11 REGALCREST COURT
WOODBIDGE, ONTARIO
CANADA
L4L 8P3
PREPARED BY..... REGULATORY AFFAIRS
PREPARATION DATE..... May25/11
PRODUCT NAME..... BROM-N-8 TABLETS
PRODUCT CODE..... MUR0018
CHEMICAL FORMULA..... N.AV.
MOLECULAR WEIGHT..... N.AV.
CHEMICAL FAMILY..... HALOGENATED HYDANTOIN.
MATERIAL USE..... N.AV.
EMERGENCY PHONE NO..... CANUTEC (613)-996-6666.

Section 02: HAZARDS IDENTIFICATION

ROUTE OF ENTRY..... SKIN CONTACT, INHALATION, INGESTION, EYE CONTACT.
SKIN CONTACT..... CAUSES SKIN BURNS. ON CONTACT WITH MOISTURE, THIS MATERIAL READILY
HYDROLYZES TO ACID WHICH MAY RESULT IN BURNS IF NOT PROMPTLY
REMOVED.
SKIN ABSORPTION..... N.AV.
EYE CONTACT..... CAUSES SERIOUS EYE DAMAGE.
INHALATION..... CAUSES RESPIRATORY TRACT IRRITATION.
INGESTION..... HARMFUL IF SWALLOWED.
EFFECTS OF ACUTE EXPOSURE..... SEE ABOVE.
EFFECTS OF CHRONIC EXPOSURE..... NONE KNOWN.
MEDICAL CONDITIONS AGGRAVATED BY
EXPOSURE..... RESPIRATORY DISORDERS, SKIN DISORDERS.

Section 03: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route,Species	LC/50 Route,Species
1-BROMO-3-CHLORO-5,5-DIMETHYLHYDANTOIN	96	SEE SECTION 11	16079-88-2	SEE SECTION 11	SEE SECTION 11

Section 04: FIRST AID MEASURES

EYE CONTACT..... RINSE IMMEDIATELY WITH PLENTY OF WATER, ALSO UNDER THE EYELIDS, FOR
AT LEAST 15 MINUTES. REMOVE CONTACT LENSES, IF PRESENT, AFTER 5
MINUTES, THEN CONTINUE RINSING EYE. CALL A PHYSICIAN OR POISON
CONTROL CENTRE IMMEDIATELY.
SKIN CONTACT..... REMOVE CONTAMINATED CLOTHING AND SHOES. RINSE IMMEDIATELY WITH
PLENTY OF WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN OR POISON
CONTROL CENTRE IMMEDIATELY.
INGESTION..... CALL A PHYSICIAN OR POISON CONTROL CENTRE IMMEDIATELY. HAVE PERSON
SIP A GLASS OF WATER IF ABLE TO SWALLOW. DO NOT INDUCE VOMITING
UNLESS DIRECTED TO DO SO BY A PHYSICIAN OR POISON CONTROL CENTER. DO
NOT GIVE ANYTHING BY MOUTH TO A CONVULSING OR UNCONSCIOUS PERSON.
INHALATION..... REMOVE TO FRESH AIR. IF PERSON IS NOT BREATHING, CALL 911 OR AN
AMBULANCE, THEN GIVE ARTIFICIAL RESPIRATION, PREFERABLY
MOUTH-TO-MOUTH, IF POSSIBLE. CALL A PHYSICIAN OR POISON CONTROL
CENTRE IMMEDIATELY.
NOTES TO PHYSICIAN..... PROBABLE MUCOSAL DAMAGE MAY CONTRAINDICATE THE USE OF GASTRIC
LAVAGE.

Section 05: FIRE FIGHTING MEASURES

T.D.G. FLAM. CLASS..... NON FLAMMABLE.
FLAMMABILITY
IF YES, UNDER WHICH CONDITIONS?
EXTINGUISHING MEDIA..... SUITABLE EXTINGUISHING MEDIA : FLOOD WITH LARGE VOLUMES OF WATER.
UNSUITABLE EXTINGUISHING MEDIA: ABC POWDER , DRY CHEMICAL, RISK OF
VIOLENT REACTION.

PRODUCT: BROM-N-8 TABLETS

CODE: MUR0018

Section 05: FIRE FIGHTING MEASURES

FIRE FIGHTING PROCEDURES..... SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: IN THE EVENT OF FIRE, WEAR SELF-CONTAINED BREATHING APPARATUS. THOROUGHLY DECONTAMINATE FIRE FIGHTING EQUIPMENT INCLUDING ALL FIRE FIGHTING WEARING APPAREL AFTER THE INCIDENT.

FLASH POINT (C), METHOD..... N.AP.
 AUTO IGNITION TEMPERATURE..... N.AV.
 UPPER FLAMMABLE LIMIT (% BY VOL.).... N.AP.
 LOWER FLAMMABLE LIMIT (% BY VOL.)... N.AP.
 EXPLOSION DATA..... N.AV.
 EXPLOSIVE POWER..... N.AV.
 RATE OF BURNING..... N.AV.
 SENSITIVITY TO STATIC DISCHARGE..... NONE.
 SENSITIVITY TO IMPACT..... NONE.
 HAZARDOUS COMBUSTION PRODUCTS.. SEE HAZARDOUS DECOMPOSITION PRODUCTS.
 FURTHER INFORMATION..... IN LARGE FIRES FUELED BY OTHER MATERIALS, THIS PRODUCT MAY SMOLDER FOR PROLONGED PERIODS EMITTING A DENSE BLACK SMOKE. DO NOT LET FIRE BURN.

Section 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL..... DO NOT FLUSH INTO SURFACE WATER OR SANITARY SEWER SYSTEM. USING APPROPRIATE PROTECTIVE CLOTHING AND SAFETY EQUIPMENT, CONTAIN SPILLED MATERIAL. DO NOT ADD WATER TO SPILLED MATERIAL. USING CLEAN DEDICATED EQUIPMENT, SWEEP AND SCOOP ALL SPILLED MATERIAL, CONTAMINATED SOIL, AND OTHER CONTAMINATED MATERIAL AND PLACE INTO CLEAN DRY CONTAINERS FOR DISPOSAL. DO NOT CLOSE CONTAINERS CONTAINING WET OR DAMP MATERIAL. THEY SHOULD BE LEFT OPEN TO DISPERSE ANY HAZARDOUS GASES THAT MAY FORM. ADDITIONAL ADVICE: DO NOT USE FLOOR SWEEPING COMPOUNDS TO CLEAN UP SPILLS. DO NOT TRANSPORT WET OR DAMP MATERIAL. TREAT RECOVERED MATERIAL AS DESCRIBED IN THE SECTION "DISPOSAL CONSIDERATIONS".

Section 07: HANDLING AND STORAGE

HANDLING..... STRONG OXIDIZING AGENT. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. AVOID BREATHING DUST. AVOID BREATHING VAPORS. DO NOT MIX WITH OTHER CHEMICALS. MIX ONLY WITH WATER. NEVER ADD WATER TO THIS PRODUCT. ALWAYS ADD PRODUCT TO LARGE QUANTITIES OF WATER. WHEN USING AUTOMATIC FEEDING DEVICES, ALWAYS FOLLOW MANUFACTURER'S DIRECTIONS AS TO THE PROPER ADDITION OF SANITIZER PRODUCT TO BROMINATORS. USE ONLY CLEAN AND DRY UTENSILS. DO NOT ADD THIS PRODUCT TO ANY DISPENSING DEVICES CONTAINING REMNANTS OF ANY OTHER PRODUCT. SUCH USE MAY CAUSE A VIOLENT REACTION LEADING TO FIRE OR EXPLOSION. CONTAMINATION WITH MOISTURE, ORGANIC MATTER OR OTHER CHEMICALS MAY START A CHEMICAL REACTION AND GENERATE HEAT, HAZARDOUS GAS, POSSIBLE FIRE AND EXPLOSION. IN CASE OF CONTAMINATION OR DECOMPOSITION, DO NOT RESEAL CONTAINER. IF POSSIBLE, ISOLATE CONTAINER IN OPEN AIR OR WELL VENTILATED AREA. FLOOD WITH LARGE VOLUMES OF WATER. WASH HANDS THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING OR USING TOBACCO. DO NOT HANDLE UNTIL ALL SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD. DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL OR CLEANING OF EQUIPMENT.

STORAGE NEEDS..... STORE IN ORIGINAL CONTAINER. KEEP CONTAINERS TIGHTLY CLOSED IN A DRY, COOL AND WELL-VENTILATED PLACE. KEEP OUT OF REACH OF CHILDREN. KEEP AWAY FROM ANIMALS.

Section 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION

GLOVES/ TYPE..... WEAR RUBBER GLOVES.
 RESPIRATORY/TYPE..... A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

EYE/TYPE..... GOGGLES, SAFETY GLASSES WITH SIDE-SHIELDS.
 FOOTWEAR/TYPE..... PROTECTIVE FOOTWEAR.
 CLOTHING/TYPE..... PROTECTIVE CLOTHING.
 OTHER/TYPE..... ENSURE THAT EYEWASH STATIONS AND SAFETY SHOWERS ARE CLOSE TO THE WORKSTATION LOCATION.

ENGINEERING CONTROLS..... USE WITH ADEQUATE VENTILATION.
 HYGIENIC PRACTICES..... WASH CONTAMINATED CLOTHING BEFORE REUSE.

PRODUCT: BROM-N-8 TABLETS

CODE: MUR0018

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... TABLETS.
 COLOR..... WHITE.
 ODOUR..... FAINT HALOGEN ODOUR.
 ODOUR THRESHOLD..... N.AV.
 VAPOUR PRESSURE (MMHG)..... N.AP.
 VAPOUR DENSITY (AIR=1)..... N.AP.
 BY VOLUME..... N.AP.
 BY WEIGHT..... N.AP.
 EVAPORATION RATE..... N.AP.
 BOILING POINT..... N.AP.
 PH..... 4.5 (0.1% SOLUTION IN DI WATER).
 DENSITY..... 0.87 - 0.92 G/CM3.
 SOLUBILITY IN WATER (% W/W)..... 0.15G/100G WATER.
 COEFFICIENT OF WATER/OIL DIST..... N.AP.

Section 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY..... STABLE UNDER NORMAL CONDITIONS OF HANDLING AND STORAGE.
 CONDITIONS TO AVOID..... HIGH TEMPERATURES. POOR VENTILATION. CONTAMINATION. MOISTURE/HIGH HUMIDITY.
 MATERIALS TO AVOID..... AVOID CONTACT WITH WATER ON CONCENTRATED MATERIAL IN THE CONTAINER. AVOID CONTACT WITH EASILY OXIDIZABLE MATERIAL; AMMONIA, UREA, OR SIMILAR NITROGEN CONTAINING COMPOUNDS; INORGANIC REDUCING COMPOUNDS; FLOOR SWEEPING COMPOUNDS; CALCIUM HYPOCHLORITE; OTHER SWIMMING POOL/SPA CHEMICALS IN THEIR CONCENTRATED FORM; ALKALIS. AVOID CONTACT WITH ALL OTHER CHEMICALS.
 HAZARDOUS POLYMERIZATION..... HAZARDOUS POLYMERIZATION WILL NOT OCCUR UNDER NORMAL CONDITIONS.
 HAZARDOUS PRODUCTS OF DECOMPOSITION..... HYDROGEN HALIDES, BROMINE, CHLORINE, CARBON OXIDES, NITROGEN OXIDES (NOX). THERMAL DECOMPOSITION: 180 °C.

Section 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL..... N.AV.
 LC 50 OF MATERIAL, SPECIES & ROUTE.. N.AV.
 LD 50 OF MATERIAL, SPECIES & ROUTE.. ACUTE ORAL TOXICITY: LD50: 578 MG/KG, SPECIES: RAT. ACUTE DERMAL TOXICITY: LD50: > 2,000 MG/KG, SPECIES: RABBIT.
 CARCINOGENICITY OF MATERIAL..... IARC: NOT LISTED.
 REPRODUCTIVE EFFECTS..... N.AV.
 TERATOGENICITY.....
 MUTAGENICITY..... N.AV.
 IRRITANCY OF MATERIAL..... SKIN IRRITATION: SPECIES - RABBIT, RESULT: PRIMARY IRRITATION INDEX (PII) = 6.1. CLASSIFICATION: CORROSIVE. REMARKS: CAUSES SKIN BURNS. DIRECT CONTACT WITH WET MATERIAL OR MOIST SKIN MAY CAUSE SEVERE IRRITATION, PAIN AND POSSIBLY BURNS. EYE IRRITATION: SPECIES - RABBIT, CLASSIFICATION: CORROSIVE. REMARKS: CAUSES SERIOUS EYE DAMAGE.
 SENSITIZING CAPABILITY OF MATERIAL..... DID NOT CAUSE SENSITIZATION ON LABORATORY ANIMALS.
 SYNERGISTIC MATERIALS..... N.AV.

Section 12: ECOLOGICAL CONSIDERATIONS

ECOLOGICAL INFORMATION..... TOXIC TO FISH. TOXIC TO AQUATIC ORGANISMS. DO NOT DISCHARGE EFFLUENT CONTAINING THIS PRODUCT INTO LAKES, STREAMS, PONDS OR ESTUARIES, OCEANS, OR OTHER WATERS UNLESS IN ACCORDANCE WITH THE REQUIREMENTS OF A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND THE PERMITTING AUTHORITY HAS BEEN NOTIFIED IN WRITING PRIOR TO DISCHARGE. DO NOT DISCHARGE EFFLUENT CONTAINING THIS PRODUCT TO SEWER SYSTEMS WITHOUT PREVIOUSLY NOTIFYING THE LOCAL SEWAGE TREATMENT PLANT AUTHORITY. FOR GUIDANCE CONTACT YOUR STATE WATER BOARD OR REGIONAL OFFICE OF THE EPA.

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL..... DISPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

Section 14: TRANSPORT INFORMATION

TDG CLASSIFICATION..... 5.1.
 UN NUMBER..... 1479.
 PACKING GROUP..... II.
 PROPER SHIPPING NAME..... OXIDIZING SOLID, N.O.S. (BROMO-CHLORO-DIMETHYLHYDANTOIN).
 SPECIAL SHIPPING INSTRUCTIONS..... N.AV.

PRODUCT: BROM-N-8 TABLETS

CODE: MUR0018

Section 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION..... C, E.
CPR COMPLIANCE..... THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD
CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION
REQUIRED BY THE CPR.
DSL..... LISTED.

Section 16: OTHER INFORMATION

N.AP.=NOT APPLICABLE
N.AV.=NOT AVAILABLE
OTHER INFORMATION..... THE DATA IN THIS MSDS RELATES ONLY TO THE SPECIFIC MATERIAL
DESIGNATED HEREIN AND DOES NOT RELATE TO USE IN COMBINATION WITH
ANY OTHER MATERIAL OR IN ANY PROCESS. THIS DATA IS OFFERED IN GOOD
FAITH AS TYPICAL VALUES AND NOT AS PRODUCT SPECIFICATIONS. NO
WARRANTY, EITHER EXPRESSED OR IMPLIED, IS HEREBY MADE. THE
RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE
BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD
REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE
INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.