



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..... Jun01/08  
PRODUCT NAME..... BROM-N-8 TABLETS  
PRODUCT CODE..... MUR0018  
CHEMICAL FORMULA..... N.AV.  
MOLECULAR WEIGHT..... N.AV.  
CHEMICAL FAMILY..... HALOGENATED HYDANTOIN.  
MATERIAL USE..... MANUFACTURING USE PESTICIDE.  
EMERGENCY PHONE NO..... CANUTEC (613)-996-6666.

**Section 02: 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	60-100	N.AV.	16079-88-2	578 MG/KG (ORAL, RAT); 2.0 G/KG (DERMAL, RABBIT).	N.AV.

**Section 03: HAZARDS IDENTIFICATION**

ROUTE OF ENTRY:..... SKIN CONTACT, INHALATION, INGESTION, EYE CONTACT.  
SKIN CONTACT..... CAUSES SKIN DAMAGE. DO NOT GET ON SKIN. DERMAL CONTACT IS EXPECTED TO BE A PRIMARY ROUTE OF EXPOSURE AND CAN CAUSE SKIN IRRITATION WHICH MAY RESULT IN CORROSION IF NOT PROMPTLY REMOVED.  
SKIN ABSORPTION..... N.AV.  
EYE CONTACT..... CAUSES EYE DAMAGE. DO NOT GET IN EYES. MAY RESULT IN CORROSION TO THE EYES. DUST OR VAPORS MAY CAUSE IRRITATION AND TEARING.  
INHALATION..... IRRITATING TO NOSE AND THROAT. AVOID BREATHING DUST OR FUMES. BREATHING DUST OR FUMES IS EXPECTED TO BE A PRIMARY ROUTE OF EXPOSURE AND MAY PRODUCE THROAT AND RESPIRATORY TRACT IRRITATION.  
INGESTION..... MAY BE FATAL IF SWALLOWED. WILL RESULT IN BURNING OF MOUTH, THROAT AND ESOPHAGUS, ABDOMINAL DISTRESS AND SEVERE IRRITATION, POSSIBLE CORROSION OF THE DIGESTIVE TRACT.  
EFFECTS OF ACUTE EXPOSURE..... DANGER: HIGHLY CORROSIVE: CAUSES SKIN AND EYE DAMAGE. MAY BE FATAL IF SWALLOWED. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. WEAR GOGGLES OR SAFETY GLASSES AND RUBBER GLOVES WHEN HANDLING THIS PRODUCT. IRRITATING TO NOSE AND THROAT. AVOID BREATHING DUST AND FUMES. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.  
EFFECTS OF CHRONIC EXPOSURE..... THERE ARE NO KNOWN CHRONIC HAZARDS.  
INHALATION, CHRONIC..... SEE ABOVE.  
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE..... EXISTING DERMATITIS MAY BE AGGRAVATED BY EXPOSURE.

**Section 04: FIRST AID MEASURES**

EYE CONTACT..... IF CONTACT WITH EYES OCCURS: IMMEDIATELY FLUSH WITH COLD WATER FOR AT LEAST 15 MINUTES. THEN GET IMMEDIATE MEDICAL ATTENTION.  
SKIN CONTACT..... IF CONTACT WITH SKIN: BRUSH OFF EXCESS CHEMICAL AND FLUSH SKIN WITH COLD WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION.  
INGESTION..... IF SWALLOWED: DRINK LARGE AMOUNTS OF WATER. DO NOT INDUCE VOMITING. AVOID ALCOHOL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY.  
INHALATION..... IF INHALED: REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, HAVE TRAINED PERSON ADMINISTER OXYGEN. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CALL A PHYSICIAN IMMEDIATELY.  
NOTES TO PHYSICIAN..... PROBABLE MUCOSAL DAMAGE MAY CONTRAINDICATE THE USE OF GASTRIC LAVAGE.

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**Section 05: FIRE FIGHTING MEASURES**

T.D.G. FLAM. CLASS.....	NON FLAMMABLE.
FLAMMABILITY.....	NON-FLAMMABLE.
IF YES, UNDER WHICH CONDITIONS?.....	N.A.V.
GENERAL HAZARDS.....	IN LARGE FIRES FUELED BY OTHER MATERIALS, THIS PRODUCT MAY SMOLDER FOR PROLONGED PERIODS EMITTING A DENSE BLACK SMOKE. ANY SPILLED MATERIAL SHOULD BE CONSIDERED CONTAMINATED. NEUTRALIZE TO A NON-OXIDIZING MATERIAL FOR SAFE DISPOSAL. MATERIAL WHICH APPEARS UNDAMAGED EXCEPT FOR BEING DAMP ON THE OUTSIDE, SHOULD BE OPENED AND INSPECTED IMMEDIATELY. IF THE MATERIAL IS DAMP, IT SHOULD BE NEUTRALIZED TO A NON-OXIDIZING MATERIAL FOR SAFE DISPOSAL. .
EXTINGUISHING MEDIA.....	IN CASE OF FIRE OR SMOKE, CALL THE FIRE DEPARTMENT. DO NOT ATTEMPT TO EXTINGUISH THE FIRE WITHOUT A SELF-CONTAINED BREATHING APPARATUS (SCBA). DO NOT LET THE FIRE BURN. FLOOD WITH COPIOUS AMOUNTS OF WATER. DO NOT USE ABC OR OTHER DRY CHEMICAL EXTINGUISHERS SINCE THERE IS THE POTENTIAL FOR A VIOLENT REACTION. .
SPECIAL PROCEDURES.....	N.A.V.
FIRE FIGHTING PROCEDURES.....	FIRES FUELED BY OTHER MATERIALS MAY RELEASE HYDROGEN BROMIDE, BROMINE, HYDROGEN CHLORIDE OR CHLORINE. WEAR SELF-CONTAINED BREATHING APPARATUS. AMMONIUM PHOSPHATE (ABC) FIRE EXTINGUISHERS SHOULD NOT BE USED. .
FLASH POINT (C), METHOD.....	N.A.P.
AUTO IGNITION TEMPERATURE.....	N.A.V.
UPPER FLAMMABLE LIMIT (% BY VOL.)....	N.A.P.
LOWER FLAMMABLE LIMIT (% BY VOL.)...	N.A.P.
EXPLOSION DATA.....	N.A.V.
EXPLOSIVE POWER.....	A DUST EXPLOSION SEVERITY DETERMINATION WAS PERFORMED USING THE HARTMANN DUST EXPLOSIBILITY BOMB DESIGNED AT THE U.S. BUREAU OF MINES. THE PRODUCT WAS DETERMINED NOT TO BE IGNITABLE.
RATE OF BURNING.....	N.A.V.
SENSITIVITY TO STATIC DISCHARGE.....	NONE.
SENSITIVITY TO IMPACT.....	NONE.
HAZARDOUS COMBUSTION PRODUCTS..	HAZARDOUS COMBUSTION PRODUCTS MAY INCLUDE, BUT ARE NOT LIMITED TO OXIDES OF CARBON, OXIDES OF NITROGEN, AND CHLORINE GAS.
HAZARDOUS DECOMPOSITION .....	HAZARDOUS DECOMPOSITION AND BURNING MAY PRODUCE CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN OXIDES, CHLORINE COMPOUNDS AND OTHER TOXIC SUBSTANCES.
PRODUCTS	

**Section 06: ACCIDENTAL RELEASE MEASURES**

LEAK/SPILL.....	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 USE FLOOR SWEEPING COMPOUNDS TO CLEAN UP SPILLS. DO NOT CLOSE CONTAINERS CONTAINING WET OR DAMP MATERIAL. THEY SHOULD BE LEFT OPEN TO DISPERSE ANY HAZARDOUS GASES THAT MAY FORM. DO NOT TRANSPORT WET OR DAMP MATERIAL. KEEP PRODUCT OUT OF SEWERS, WATERSHEDS AND WATER SYSTEMS. DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE, DISPOSAL OR CLEANING OF EQUIPMENT. DISPOSE OF ACCORDING TO LOCAL, MUNICIPAL, STATE, PROVINCIAL, AND FEDERAL REGULATIONS. .
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**Section 07: HANDLING AND STORAGE**

GENERAL PEOCEDURES.....	AVOID CONTACT WITH EYES, SKIN OR CLOTHING. AVOID BREATHING DUST OR FUMES.
HANDLING.....	STRONG OXIDIZING AGENT: DO NOT MIX WITH OTHER CHEMICALS. MIX ONLY WITH WATER. NEVER ADD WATER TO 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 CLEAN, DRY UTENSILS. DO NOT ADD THIS PRODUCT TO ANY DISPENSING DEVICE 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 WILL 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 AREA WITH LARGE VOLUMES OF WATER. .
STORAGE NEEDS.....	KEEP OUT OF REACH OF CHILDREN. KEEP THIS PRODUCT IN ORIGINAL CLOSED CONTAINER WHEN NOT IN USE. STORE IN A COOL, DRY, WELL VENTILATED AREA AWAY FROM HEAT OR OPEN FLAME. DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL OR CLEANING OF EQUIPMENT RINSE CONTAINER THOROUGHLY BEFORE DISCARDING.

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**Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION**

GLOVES/ TYPE..... WEAR RUBBER GLOVES WHEN HANDLING THIS PRODUCT. AVOID CONTACT WITH SKIN.

RESPIRATORY/TYPE..... AVOID INHALING VAPOURS OR DUST. IN CASE OF INSUFFICIENT VENTILATION, WEAR AN APPROVED NIOSH RESPIRATOR.

EYE/TYPE..... WEAR GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS WHEN HANDLING THIS PRODUCT.

FOOTWEAR/TYPE..... NO SPECIAL REQUIREMENTS.

CLOTHING/TYPE..... NO SPECIAL REQUIREMENTS.

OTHER/TYPE..... N.AV.

ENGINEERING CONTROLS..... GENERAL ROOM VENTILATION PLUS LOCAL EXHAUST SHOULD BE USED TO MINIMIZE EXPOSURE TO DUST/VAPORS.

HYGIENIC PRACTICES..... REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE.

PRECAUTIONARY MEASURES:..... FACILITIES STORING OR UTILIZING THIS MATERIAL SHOULD BE EQUIPPED WITH AN EYEWASH AND SAFETY SHOWER.

**Section 09: PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE..... SOLID.

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..... 40 - 42 LB/FT3. BULK DENSITY - POWDER FORM APPROX. 0.5 G/ML, TEST METHOD ASTM B527 BULK DENSITY - GRANULAR FORM APPROX. 0.9 G/ML.

SOLUBILITY IN WATER (% W/W)..... 0.15G/100G WATER.

COEFFICIENT OF WATER/OIL DIST..... N.AP.

**Section 10: STABILITY AND REACTIVITY**

CHEMICAL STABILITY:  
YES..... THIS PRODUCT IS STABLE UNDER NORMAL CONDITIONS.

NO, WHICH CONDITIONS?  
COMPATABILITY WITH OTHER SUBSTANCES:  
YES  
NO, WHICH ONES?..... 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.

REACTIVITY CONDITIONS:..... CONDITIONS TO AVOID: HIGH TEMPERATURE. POOR VENTILATION. CONTAMINATION. MOISTURE/HIGH HUMIDITY.

HAZARDOUS POLYMERIZATION..... HAZARDOUS POLYMERIZATION WILL NOT OCCUR UNDER NORMAL CONDITIONS.

HAZARDOUS PRODUCTS OF DECOMPOSITION..... HYDROGEN BROMIDE, BROMINE, HYDROGEN CHLORIDE, CHLORINE.

**Section 11: TOXICOLOGICAL INFORMATION**

EXPOSURE LIMIT OF MATERIAL  
LC 50 OF MATERIAL, SPECIES & ROUTE.. SEE SECTION 02.

LD 50 OF MATERIAL, SPECIES & ROUTE.. SEE SECTION 02.

ACUTE EFFECTS FROM OVEREXPOSURE..... THIS PRODUCT IS EXPECTED TO CAUSE IRREVERSIBLE EYE DAMAGE AND SKIN BURNS. HARMFUL IF SWALLOWED. . THE PRIMARY SKIN IRRITATION INDEX IS 6.1 AND THE PRODUCT IS CONSIDERED CORROSIVE TO SKIN.

CHRONIC/SUBCHRONIC DATA..... NO KNOWN CHRONIC EFFECTS.

CARCINOGENICITY OF MATERIAL..... THIS PRODUCT IS NOT LISTED AS A CARCINOGEN BY IARC. THIS PRODUCT IS NOT LISTED AS A CARCINOGEN BY NTP. THIS PRODUCT IS NOT LISTED AS A CARCINOGEN BY OSHA. .

REPRODUCTIVE EFFECTS..... THIS PRODUCT IS NOT EXPECTED TO HAVE ANY EFFECT ON FERTILITY OR REPRODUCTION.

TERATOGENICITY..... NO DATA AVAILABLE FOR THIS PRODUCT.

MUTAGENICITY..... THIS PRODUCT IS NOT EXPECTED TO BE MUTAGENIC.

IRRITANCY OF MATERIAL  
EYE EFFECTS..... TOXICOLOGICAL STUDIES INDICATE THIS PRODUCT TO BE CORROSIVE TO EYES. THIS PRODUCT CAUSES IRREVERSIBLE EYE DAMAGE.

SKIN EFFECT..... THIS PRODUCT CAUSES SKIN BURNS.

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**Section 11: TOXICOLOGICAL INFORMATION**

SENSITIZING CAPABILITY OF MATERIAL. THIS PRODUCT IS NOT EXPECTED TO BE A SKIN SENSITIZER.  
 SYNERGISTIC MATERIALS..... NONE KNOWN.

**Section 12: ECOLOGICAL CONSIDERATIONS**

ECOLOGICAL INFORMATION..... THIS PESTICIDE IS TOXIC TO FISH AND 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 LOCAL AUTHORITIES.

**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.

**Section 15: REGULATORY INFORMATION**

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. UNITED STATES SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT) 311/312 HAZARD CATEGORIES: FIRE: YES PRESSURE GENERATING: NO REACTIVITY: YES ACUTE: YES CHRONIC: NO 313 REPORTABLE INGREDIENTS: THIS PRODUCT OR ITS COMPONENTS ARE NOT LISTED. CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT) CERCLA REGULATORY: THIS PRODUCT OR ITS COMPONENTS ARE NOT LISTED. TSCA (TOXIC SUBSTANCE CONTROL ACT) TSCA REGULATORY: THIS PRODUCT OR ITS COMPONENTS ARE NOT SUBJECT TO EXPORT NOTIFICATION. TSCA STATUS: THIS PRODUCT OR ITS COMPONENTS ARE LISTED ON THE TSCA INVENTORY. OSHA HAZARD COMM. RULE: PRODUCT IS HAZARDOUS BY DEFINITION OF THE HAZARDOUS COMMUNICATION STANDARD. CLEAN WATER ACT: NOT LISTED. FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT): THIS PRODUCT IS A REGISTERED PESTICIDE. SDWA (SAFE DRINKING WATER ACT): NOT LISTED. CLEAN AIR ACT 40 CFR PART 68---RISK MANAGEMENT FOR CHEMICAL ACCIDENT RELEASE PREVENTION: NOT LISTED. . CANADA WHMIS CLASS: C - OXIDIZING MATERIAL; E - CORROSIVE MATERIAL CANADA INGREDIENT DISCLOSURE LIST: NOT LISTED DOMESTIC SUBSTANCE LIST (INVENTORY): LISTED CALIFORNIA PROPOSITION 65: THIS PRODUCT OR ITS COMPONENTS ARE NOT LISTED ON ANY PROPOSITION 65 LISTS OF CARCINOGENS OR REPRODUCTIVE TOXICANTS. .

**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.