



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

PRODUCT: BROME +

CODE: MUR0055

SECTION 01: IDENTIFICATION

PRODUCT CODE..... MUR0055
 PRODUCT IDENTIFIER..... BROME +
 OTHER MEANS OF IDENTIFICATION..... N.AV.
 RECOMMENDED USE AND CONSUMER PRODUCTS: POOL & SPA WATER TREATMENT PRODUCT. USES
 RESTRICTIONS ON USE ADVISED AGAINST: ONLY USE THIS PRODUCT AS DIRECTED. READ LABEL
 BEFORE USING.
 SUPPLIER IDENTIFIER..... MURSATT CHEMICALS LIMITED
 11 REGALCREST COURT
 WOODBRIDGE, ONTARIO
 CANADA
 L4L 8P3
 EMERGENCY PHONE NO..... CANUTEC (613)-996-6666.

SECTION 02: HAZARD IDENTIFICATION



HAZARD CLASSIFICATION..... OXIDIZING SOLIDS - CATEGORY 2. ACUTE TOXICITY (ORAL) - CATEGORY 4. SKIN
 CORROSION — CATEGORY 1C. SERIOUS EYE DAMAGE - CATEGORY 1. SPECIFIC
 SIGNAL WORD..... DANGER.
 HAZARD STATEMENT..... H272 MAY INTENSIFY FIRE; OXIDIZER. H302 HARMFUL IF SWALLOWED. H314
 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. H318 CAUSES SERIOUS EYE
 PRECAUTIONARY STATEMENT..... P210 KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. – NO
 SMOKING. P220 KEEP/STORE AWAY FROM CLOTHING/COMBUSTIBLE MATERIALS.
 P221 TAKE ANY PRECAUTION TO AVOID MIXING WITH COMBUSTIBLES.... P260 DO
 NOT BREATHE DUST/FUME/GAS/MIST/VAPOURS/SPRAY. P264 WASH SKIN
 THOROUGHLY AFTER HANDLING. P270 DO NO EAT, DRINK OR SMOKE WHEN
 USING THIS PRODUCT. P273 AVOID RELEASE TO THE ENVIRONMENT. P280 WEAR
 PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION/FACE
 PROTECTION. P301+P312+P330 IF SWALLOWED: CALL A POISON CENTER OR
 DOCTOR/PHYSICIAN IF YOU FEEL UNWELL. RINSE MOUTH. P301+P330+P331 IF
 SWALLOWED: RINSE MOUTH. DO NOT INDUCE VOMITING. P303+P361+P353 IF ON
 SKIN (OR HAIR): REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED
 CLOTHING. RINSE SKIN WITH WATER/SHOWER. P304+P340+P310 IF INHALED:
 REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE
 FOR BREATHING. IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN.
 P305+P351+P338+P310 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR
 SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO.
 CONTINUE RINSING. IMMEDIATELY CALL A POISON CENTER OR
 DOCTOR/PHYSICIAN. P363 WASH CONTAMINATED CLOTHING BEFORE REUSE.
 P370+P378 IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR
 ALCOHOL-RESISTANT FOAM FOR EXTINCTION. P391 COLLECT SPILLAGE. P405
 STORE LOCKED UP. P501 DISPOSE OF CONTENTS/CONTAINER TO APPROPRIATE
 WASTE SITE OR RECLAIMER IN ACCORDANCE WITH LOCAL AND NATIONAL
 REGULATIONS.

SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	WT. %
DICHLOROISOCYANURIC ACID SODIUM SALT	2893-78-9	30-60

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SECTION 04: FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:

EYE CONTACT.....	IN CASE OF CONTACT WITH EYES, FLUSH WITH FRESH WATER. CHECK FOR AND REMOVE ANY CONTACT LENSES. CONTINUE RINSING. CHEMICAL BURNS MUST BE TREATED PROMPTLY BY A PHYSICIAN. GET MEDICAL ATTENTION IF BLISTERING OCCURS OR REDNESS PERSISTS. GET MEDICAL ADVICE/ATTENTION. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.
SKIN CONTACT.....	REMOVE CONTAMINATED CLOTHING AND WASH IT BEFORE REUSE. CHEMICAL BURNS MUST BE TREATED PROMPTLY BY A PHYSICIAN. GET MEDICAL ATTENTION IF BLISTERING OCCURS OR REDNESS PERSISTS. GET MEDICAL ATTENTION IF IRRITATION OCCUR.
INHALATION.....	MOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. IF IT IS SUSPECTED THAT FUMES ARE STILL PRESENT, THE RESCUER SHOULD WEAR AN APPROPRIATE MASK OR SELF-CONTAINED BREATHING APPARATUS. GET MEDICAL ATTENTION. IF NECESSARY, CALL A POISON CENTER OR PHYSICIAN. MAINTAIN AN OPEN AIRWAY.
INGESTION.....	RINSE MOUTH WITH WATER. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL. CHEMICAL BURNS MUST BE TREATED PROMPTLY BY A PHYSICIAN. GET MEDICAL ATTENTION IF SYMPTOMS OCCUR. GET MEDICAL ATTENTION IF YOU FEEL UNWELL.
MOST IMPORTANT SYMPTOMS AND EFFECTS, ACUTE OR DELAYED:	EYE CONTACT - ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING: PAIN, WATERING REDNESS. SKIN CONTACT - ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING: PAIN OR IRRITATION, REDNESS, BLISTERING MAY OCCUR. INGESTION - ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING: STOMACH PAINS, NAUSEA OR VOMITING, HEADACHE, DIARRHEA. INHALATION - ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING: RESPIRATORY TRACT IRRITATION, COUGHING.
INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED	N.A.V.

SECTION 05: FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA.....	USE AN EXTINGUISHING AGENT SUITABLE FOR THE SURROUNDING FIRE.
UNSUITABLE EXTINGUISHING MEDIA.....	NONE KNOWN.
SPECIAL HAZARDS ARISING FROM THE PRODUCT:	OXIDIZING MATERIAL. MAY INTENSIFY FIRE.
HAZARDOUS COMBUSTION PRODUCTS.	CARBON DIOXIDE, CARBON MONOXIDE. NITROGEN OXIDES. HALOGENATED COMPOUNDS. METAL OXIDES.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS:	FIRE-FIGHTERS SHOULD WEAR APPROPRIATE PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS (SCBA) WITH A FULL FACE-PIECE OPERATED IN POSITIVE PRESSURE MODE. PROMPTLY ISOLATE THE SCENE BY REMOVING ALL PERSONS FROM THE VICINITY OF THE INCIDENT IF THERE IS A FIRE. NO ACTION SHOULD BE TAKEN INVOLVING ANY PERSONAL RISK OR WITHOUT SUITABLE TRAINING. MOVE CONTAINERS FROM FIRE AREA IF THIS CAN BE DONE WITHOUT RISK. USE WATER SPRAY TO KEEP FIRE-EXPOSED CONTAINERS COOL.

SECTION 06: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS.....	NO ACTION SHALL BE TAKEN INVOLVING ANY PERSONAL RISK OR WITHOUT SUITABLE TRAINING. EVACUATE SURROUNDING AREAS. KEEP UNNECESSARY AND UNPROTECTED PERSONNEL FROM ENTERING. DO NOT TOUCH OR WALK THROUGH SPILLED MATERIAL. INITIATE SPILL RESPONSE PROCEDURES IF REQUIRED. PUT ON APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (SEE SECTION 8).
ENVIRONMENTAL PRECAUTIONS.....	AVOID DISPERSAL OF SPILLED MATERIAL AND RUNOFF AND CONTACT WITH SOIL, WATERWAYS, DRAINS AND SEWERS. INFORM THE RELEVANT AUTHORITIES IF THE PRODUCT HAS CAUSED ENVIRONMENTAL POLLUTION (SEWERS, WATERWAYS, SOIL OR AIR).
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP	CONTAIN AND COLLECT SPILLAGE WITH NON-COMBUSTIBLE, ABSORBENT MATERIAL E.G. SAND, EARTH, VERMICULITE OR DIATOMACEOUS EARTH AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS (SEE SECTION 13). USE A WATER RINSE FOR FINAL CLEAN-UP.

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:.....	EATING, DRINKING AND SMOKING SHOULD BE PROHIBITED IN AREAS WHERE THIS MATERIAL IS HANDLED, STORED AND PROCESSED. WORKERS SHOULD
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SECTION 07: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:..... WASH HANDS AND FACE BEFORE EATING, DRINKING AND SMOKING. REMOVE CONTAMINATED CLOTHING AND PROTECTIVE EQUIPMENT BEFORE ENTERING EATING AREAS. SEE SECTION 8 FOR ADDITIONAL INFORMATION ON HYGIENE MEASURES.

CONDITIONS FOR SAFE STORAGE, STORE IN ACCORDANCE WITH LOCAL REGULATIONS. SEPARATE FROM INCLUDING ANY INCOMPATIBILITIES: REDUCING AGENTS AND COMBUSTIBLE MATERIALS. KEEP CONTAINER TIGHTLY CLOSED AND SEALED UNTIL READY FOR USE. CONTAINERS THAT HAVE BEEN OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE. DO NOT STORE IN UNLABELED CONTAINERS. USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION. KEEP OUT OF REACH OF CHILDREN. STORE AWAY FROM INCOMPATIBLE MATERIALS (SEE SECTION 10).

SECTION 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENTS	ACGIH TLV		PEL	OSHA PEL		REL	NIOSH
	TWA	STEL		STEL	STEL		

DICHLOROISOCYANURI C ACID SODIUM SALT	N.AV.	N.AV.	N.AV.	N.AV.	N.AV.	N.AV.
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APPROPRIATE ENGINEERING CONTROLS USE ONLY WITH ADEQUATE VENTILATION. IF USER OPERATIONS GENERATE DUST, FUMES, GAS, VAPOR OR MIST, USE PROCESS ENCLOSURES, LOCAL EXHAUST VENTILATION OR OTHER ENGINEERING CONTROLS TO KEEP WORKER EXPOSURE TO AIRBORNE CONTAMINANTS BELOW ANY RECOMMENDED OR STATUTORY LIMITS.

INDIVIDUAL PROTECTION MEASURE
SUCH AS PERSONAL PROTECTIVE
EQUIPMENTS:

HAND PROTECTION..... WEAR CHEMICAL - RESISTANT GLOVES WHILE USING OR HANDLING THIS PRODUCT.

RESPIRATORY PROTECTION..... WEAR DUST-PROTECTION MASK FOR PROLONGED OR INTENSE EXPOSURES.
EYE PROTECTION..... CONTINUED OR SEVERE EXPOSURES MIGHT REQUIRED TO WEAR A FACE SHIELD OR CHEMICAL SPLASH GOGGLES. IT IS MINIMALLY SUGGESTED TO WEAR SAFETY GLASSES WHILE USING OR HANDLING THIS PRODUCT.

PROTECTIVE FOOTWEAR..... CHEMICAL RESISTANT SAFETY SHOES OR BOOTS.

PROTECTIVE CLOTHING..... PERSONAL PROTECTIVE EQUIPMENT FOR THE BODY SHOULD BE SELECTED BASED ON THE TASK BEING PERFORMED AND THE RISKS INVOLVED AND SHOULD BE APPROVED BY A SPECIALIST BEFORE HANDLING THIS PRODUCT.

OTHER..... WEAR CHEMICAL-RESISTANT PROTECTIVE CLOTHING.

HYGIENIC PRACTICES..... EYEWASH STATION AND SAFETY SHOWER IN WORK AREA.
USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, OR SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE CONTAMINATED CLOTHING AND WASH THOROUGHLY BEFORE REUSE.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... SOLID.

COLOR..... WHITE.

ODOUR..... CHLORINE.

ODOUR THRESHOLD..... N.AV.

PH..... N.AP.

BOILING POINT..... N.AP.

FLASH POINT (C), METHOD..... N.AP.

EVAPORATION RATE..... N.AV.

FLAMMABILITY (SOLIDS AND GASES)..... N.AV.

UPPER FLAMMABLE LIMIT (% BY VOL.)... N.AP.

LOWER FLAMMABLE LIMIT (% BY VOL.)... N.AP.

VAPOUR PRESSURE (MMHG)..... N.AP.

VAPOUR DENSITY (AIR=1)..... N.AP.

RELATIVE DENSITY..... 1.05.

SOLUBILITY IN WATER (% W/W)..... N.AV.

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

AUTO IGNITION TEMPERATURE..... N.AV.

DECOMPOSITION TEMPERATURE..... N.AV.

VISCOSITY..... NO DATA.

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SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:..... NO SPECIFIC TEST DATA RELATED TO REACTIVITY AVAILABLE FOR THIS PRODUCT OR ITS INGREDIENTS. HAZARDOUS POLYMERISATION WILL NOT OCCUR.

CHEMICAL STABILITY:..... STABLE.

POSSIBILITY OF HAZARDOUS REACTIONS:..... HAZARDOUS REACTIONS OR INSTABILITY MAY OCCUR UNDER CERTAIN CONDITIONS OF STORAGE OR USE. CONDITIONS MAY INCLUDE THE FOLLOWING: CONTACT WITH COMBUSTIBLE MATERIALS REACTIONS MAY INCLUDE THE FOLLOWING: RISK OF CAUSING OR INTENSIFYING FIRE.

CONDITIONS TO AVOID..... CONTACT WITH INCOMPATIBLES. AVOID THE CREATION OF DUST WHEN HANDLING AND AVOID ALL POSSIBLE SOURCES OF IGNITION (SPARK OR FLAME). TAKE PRECAUTIONARY MEASURES AGAINST ELECTROSTATIC DISCHARGES. TO AVOID FIRE OR EXPLOSION, DISSIPATE STATIC ELECTRICITY DURING TRANSFER BY GROUNDING AND BONDING CONTAINERS AND EQUIPMENT BEFORE TRANSFERRING MATERIAL. PREVENT DUST ACCUMULATION.

INCOMPATIBLE MATERIALS:..... ACIDS, COMBUSTIBLE MATERIALS, REDUCING MATERIALS.

HAZARDOUS PRODUCTS OF DECOMPOSITION:..... SEE HAZARDOUS COMBUSTION PRODUCTS.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
DICHLOROISOCYANURIC ACID SODIUM SALT	847.5 MG/M3 (RAT, INH - 4H)	1420 MG/KG (ORAL, RAT)
INFORMATION ON LIKELY ROUTES OF ENTRY:		
INHALATION.....	MAY CAUSE RESPIRATORY IRRITATION. INHALATION OF VAPORS OR MIST MAY CAUSE RESPIRATORY TRACT IRRITATION. ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING: RESPIRATORY TRACT IRRITATION, COUGHING.	
INGESTION.....	HARMFUL IF SWALLOWED. MAY CAUSE BURNS TO MOUTH, THROAT AND STOMACH. ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING: STOMACH PAINS, NAUSEA OR VOMITING, HEADACHE, DIARRHEA.	
SKIN CONTACT.....	MAY CAUSE SKIN BURNS. ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING: PAIN OR IRRITATION, REDNESS, BLISTERING MAY OCCUR.	
EYE CONTACT.....	MAY CAUSE EYE BURN. ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING: PAIN, WATERING, REDNESS.	
EFFECTS OF ACUTE EXPOSURE.....	SEE ABOVE.	
EFFECTS OF CHRONIC EXPOSURE.....	SEE ABOVE.	
SIGNS AND SYMPTOMS OF OVEREXPOSURE		
CARCINOGENICITY OF MATERIAL.....	DICHLOROISOCYANURIC ACID SODIUM SALT: IARC - GROUP 4.	
TERATOGENICITY.....	NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.	
MUTAGENICITY.....	NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.	
REPRODUCTIVE EFFECTS.....	NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.	
SENSITIZING CAPABILITY OF MATERIAL.....	N.AV.	
SYNERGISTIC MATERIALS.....	N.AV.	

SECTION 12: ECOLOGICAL CONSIDERATIONS

ECOTOXICITY..... N.AV.

PERSISTENCE AND DEGRADATION..... N.AV.

BIOACCUMULATIVE POTENTIAL..... N.AV.

MOBILITY IN SOIL..... N.AV.

OTHER ADVERSE EFFECTS..... N.AV.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS:..... DISPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

TDG CLASSIFICATION..... 5.1.

PROPER SHIPPING NAME..... DICHLOROISOCYANURIC ACID (DICHLOROISOCYANURIC ACID SODIUM SALT).

UN NUMBER..... 2465.

PACKING GROUP..... II.

ENVIRONMENTAL HAZARDS ACCORDING TO THE INTERNATIONAL MARITIME DANGEROUS GOODS CODE AND THE UNITED NATIONS MODEL REGULATIONS:..... N.AV.

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SECTION 14: TRANSPORT INFORMATION

TRANSPORT IN BULK..... N.AP.
SPECIAL PRECAUTIONS IN CONNECTION WITH TRANSPORT OR CONVEYANCE EITHER WITHIN OR OUTSIDE THE PREMISES: N.AV.

SECTION 15: REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS SPECIFIC TO THE PRODUCT: N.AV.

SECTION 16: OTHER INFORMATION

N.AV.=NOT AVAILABLE
N.AP.=NOT APPLICABLE

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.
PREPARED BY..... REGULATORY AFFAIRS
PREPARATION DATE..... APR 17/2017