



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

PRODUCT: BROME-ADD

CODE: MUR0002

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..... Mar28/08
PRODUCT NAME..... BROME-ADD
PRODUCT CODE..... MUR0002
CHEMICAL FORMULA..... N.AV.
MOLECULAR WEIGHT..... N.AV.
CHEMICAL FAMILY..... N.AV.
MATERIAL USE..... WATER TREATMENT WITH BROMINE GENERATOR SYSTEMS.
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
SODIUM BROMIDE	30-60	N.AV.	7647-15-6	ACUTE ORAL TOXICITY: 4200 MG/KG (RAT). ACUTE DERMAL TOXICITY: >2000 MG/KG (RABBIT).	N.AV.

Section 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:
SKIN CONTACT..... MAY CAUSE SLIGHT IRRITATION ON PROLONGED CONTACT.
SKIN ABSORPTION..... NO.
EYE CONTACT..... YES. MILDLY IRRITATING TO THE EYES.
INHALATION..... YES. IRRITATING TO THE UPPER RESPIRATORY TRACT.
INGESTION..... YES. MAY CAUSE NAUSEA, VOMITING AND ABDOMINAL PAIN. INGESTION MAY CAUSE DROWSINESS, MUSCULAR INCOORDINATION AND RESPIRATORY DEPRESSION. .
EFFECTS OF ACUTE EXPOSURE..... CAUSES RESPIRATORY TRACT IRRITATION. HARMFUL IF SWALLOWED. .
EFFECTS OF CHRONIC EXPOSURE..... REPEATED SKIN CONTACT MAY CAUSE DERMATITIS.
INHALATION, CHRONIC..... N.AV.

Section 04: FIRST AID MEASURES

EYE CONTACT..... IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, KEEPING EYELIDS OPEN. COLD WATER MAY BE USED. SEEK IMMEDIATE MEDICAL ATTENTION. .
SKIN CONTACT..... FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. SEEK IMMEDIATE MEDICAL ATTENTION. .
INGESTION..... DO NOT INDUCE VOMITING. IF THE VICTIM IS CONSCIOUS, GIVE A LITTLE WATER OR MILK. NEVER GIVE AN UNCONSCIOUS PERSON ANYTHING TO INGEST. SEEK IMMEDIATE MEDICAL ATTENTION. .
INHALATION..... ALLOW THE VICTIM TO REST IN A WELL VENTILATED AREA. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF THE VICTIM IS NOT BREATHING, PERFORM ARTIFICIAL RESPIRATION. SEEK IMMEDIATE MEDICAL ATTENTION. .
NOTES TO PHYSICIAN..... THERE IS NO SPECIFIC ANTIDOTE. TREAT SYMPTOMATICALLY AND SUPPORTIVELY.

Section 05: FIRE FIGHTING MEASURES

T.D.G. FLAM. CLASS..... NON FLAMMABLE.
FLAMMABILITY..... NON FLAMMABLE.
IF YES, UNDER WHICH CONDITIONS?
EXTINGUISHING MEDIA..... USE EXTINGUISHING MEDIA SUITABLE FOR SURROUNDING FIRE.
SPECIAL PROCEDURES..... WEAR NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS (SCBA) WHEN EITHER IN CONFINED AREAS OR EXPOSED TO COMBUSTION PRODUCTS. .
FLASH POINT (C), METHOD..... N.AP.
AUTO IGNITION TEMPERATURE..... N.AP.
UPPER FLAMMABLE LIMIT (% BY VOL.).... N.AP.

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Section 05: FIRE FIGHTING MEASURES

LOWER FLAMMABLE LIMIT (% BY VOL.)... N.AP.
 EXPLOSION DATA..... N.AV.
 EXPLOSIVE POWER..... N.AV.
 RATE OF BURNING..... N.AP.
 SENSITIVITY TO STATIC DISCHARGE..... N.AV.
 SENSITIVITY TO IMPACT..... N.AV.
 HAZARDOUS COMBUSTION PRODUCTS.. WHEN HEATED TO DECOMPOSITION, MAY RELEASE POISONOUS AND CORROSIVE FUMES OF HYDROGEN BROMIDE AND SODIUM OXIDE. .

Section 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL..... USE APPROPRIATE TOOLS TO PUT THE SPILLED MATERIAL IN A CONVENIENT WASTE DISPOSAL CONTAINER. FINISH CLEANING BY SPREADING WATER ON THE CONTAMINATED SURFACE AND DISPOSE OF ACCORDING TO FEDERAL, PROVINCIAL AND MUNICIPAL ENVIRONMENTAL CONTROL REGULATIONS. .

Section 07: HANDLING AND STORAGE

HANDLING PROCEDURES AND FOLLOW ROUTINE SAFE HANDLING PROCEDURES. USE GOOD INDUSTRIAL EQUIPMENT HYGIENE PRACTICES.
 STORAGE NEEDS..... KEEP CONTAINER TIGHTLY CLOSED. KEEP IN A COOL, WELL VENTILATED PLACE. STORE AWAY FROM INCOMPATIBLE MATERIALS. .

Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/ TYPE..... IMPERVIOUS GLOVES.
 RESPIRATORY/TYPE..... IF USER OPERATIONS GENERATE FUME, MIST OR IF WORKPLACE CONTAMINANT LEVEL IS ABOVE THRESHOLD LIMIT, ENSURE TO USE A MSHA/NIOSH APPROVED RESPIRATOR OR EQUIVALENT. .
 EYE/TYPE..... SPLASH GOGGLES.
 FOOTWEAR/TYPE..... BOOTS.
 CLOTHING/TYPE..... FULL SUIT.
 OTHER/TYPE..... ENSURE THAT EYE STATIONS AND SAFETY SHOWERS ARE PROXIMAL TO THE WORK-STATION LOCATION. .
 ENGINEERING CONTROLS..... PROVIDE EXHAUST VENTILATION OR OTHER ENGINEERING CONTROLS TO KEEP THE AIRBORNE CONCENTRATIONS OF VAPOURS BELOW THEIR RESPECTIVE THRESHOLD LIMIT VALUE. .

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... WATER-WHITE LIQUID.
 ODOUR..... NONE.
 ODOUR THRESHOLD..... N.AP.
 VAPOUR PRESSURE (MMHG)..... N.AV.
 VAPOUR DENSITY (AIR=1)
 BY VOLUME..... N.AV.
 BY WEIGHT..... N.AV.
 EVAPORATION RATE..... N.AV.
 BOILING POINT..... >100 C.
 PH..... 6.0 - 8.0.
 SPECIFIC GRAVITY (WATER=1)..... 1.35.
 SOLUBILITY IN WATER (% W/W)..... WATER SOLUTION.
 COEFFICIENT OF WATER/OIL DIST..... N.AV.

Section 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:
 YES..... STABLE.
 NO, WHICH CONDITIONS?
 CONDITIONS TO AVOID..... CONTACT WITH ICOMPATIBLES.
 COMPATABILITY WITH OTHER
 SUBSTANCES:
 YES
 NO, WHICH ONES?..... REACTIVE WITH STRONG OXIDIZING AGENTS, STRONG ACIDS, HEAVY METAL SALTS. MAY REACT EXPLOSIVELY WITH BROMINE TRIFLUORIDE. .
 REACTIVITY CONDITIONS..... CONTACT WITH INCOMPATIBLES.
 HAZARDOUS PRODUCTS OF HYDROGEN BROMIDE AND SODIUM OXIDE.
 DECOMPOSITION
 HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR.

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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.
 CARCINOGENICITY OF MATERIAL..... N.AV.
 REPRODUCTIVE EFFECTS..... N.AV.
 IRRITANCY OF MATERIAL..... SEE SECTION 03.
 SENSITIZING CAPABILITY OF MATERIAL. N.AV.
 SYNERGISTIC MATERIALS..... N.AV.
 DEVELOPMENTAL TOXICITY..... N.AV.
 TERATOGENICITY..... N.AV.
 MUTAGENICITY..... N.AV.

Section 12: ECOLOGICAL CONSIDERATIONS

ECOTOXICITY..... FOR SODIUM BROMIDE, ECOTOXICITY IN WATER: >1000 MG/L [LC50], 96 HOURS
 [FISH (RAINBOW TROUT; BLUEGIL SUNFISH.)]. >1000 MG/L [EC50], 48 HOURS
 [DAPHNIA]. .
 BIODEGRADABLE/OECD..... NOT EXPECTED TO BIOACCUMULATE. THE PRODUCT FULLY DISSOCIATES IN
 AQUATIC ENVIRONMENT TO BROMIDE AND AMMONIUM IONS. IT ALSO
 UNDERGOES DEGRADATION IN SOIL TO BROMIDE ION. .

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL..... DISPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. AVOID ENTRY
 OF PRODUCT INTO THE SEWAGE SYSTEM OR WATER STREAMS.

Section 14: TRANSPORT INFORMATION

TDG CLASSIFICATION..... NOT REGULATED.
 PROPER SHIPPING NAME..... N.AP.
 UN NUMBER..... N.AP.
 PACKING GROUP..... N.AP.
 SPECIAL SHIPPING INSTRUCTIONS..... NOT REGULATED.

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.
 WHMIS CLASSIFICATION..... D2B.

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.