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MATERIAL SAFETY DATA SHEET:

BORIC ACID

CATALOG NUMBER: AB00250

SECTION I - PRODUCT IDENTIFICATION

SYNONYMS: BORACIC ACID, BORON TRIHYDROXIDE

MOLECULAR WEIGHT: 61.83

FORMULA: H3BO3

GRADE: ULTRA PURE/ACS

PHYSICAL DESCRIPTION: WHITE POWDER

SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

SARA 313: NO

EC NO: 233-139-2

CAS NUMBER: 10043-35-3

SECTION III - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS RATING:

HEALTH RATING: 1*

FLAMMABILITY RATING: 0

REACTIVITY RATING: 1

NFPA RATING:

HEALTH RATING: 1

FLAMMABILITY RATING: 0

REACTIVITY RATING: 1

*ADDITIONAL CHRONIC HAZARDS PRESENT.

FOR ADDITIONAL INFORMATION ON TOXICITY, PLEASE REFER TO SECTION XI.

SECTION IV - FIRST AID MEASURES

ORAL EXPOSURE: IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

INHALATION:

REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION.

DERMAL EXPOSURE: IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.

EYE CONTACT:

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, LIFTING LOWER AND UPPER EYELIDS OCCASIONALLY. GET MEDICAL ATTENTION IMMEDIATELY.

SECTION V - FIRE FIGHTING MEASURES

AUTOIGNITION TEMP: N/A

EXTINGUISHING MEDIA: SUITABLE: WATER SPRAY. CARBON DIOXIDE, DRY CHEMICAL POWDER, OR APPROPRIATE FOAM.

FIREFIGHTING: PROTECTIVE EQUIPMENT: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.
SPECIFIC HAZARDS: EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION VI – ACCIDENTAL RELEASE MEASURES

METHODS FOR CLEANING UP: SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL, AVOID RAISING DUST, VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION VII – HANDLING AND STORAGE

HANDLING: USER EXPOSURE: AVOID INHALATION. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING, AVOID PROLONGED OR REPEATED EXPOSURE.

STORAGE: SUITABLE: KEEP TIGHTLY CLOSED.

SPECIAL REQUIREMENTS: MOISTURE SENSITIVE.

SECTION VIII – EXPOSURE CONTROLS/PPE

ENGINEERING CONTROLS: SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: WEAR DUST MASK

HAND: PROTECTIVE GLOVES.

EYE: CHEMICAL SAFETY GOGGLES.

GENERAL HYGIENE MEASURES: WASH THOROUGHLY AFTER HANDLING.

SECTION IX – PHYSICAL/CHEMICAL PROPERTIES

APPEARANCE: SOLID

MOLECULAR WEIGHT: 61.83 AMU

PH: 5.1

BP/BP RANGE: 300°C

MP/MP RANGE: 160°C

VAPOR PRESSURE: 2.6 MMHG 20°C

SG/DENSITY: 1.44 G/CM³

SOLUBILITY IN WATER: SOLUBLE.

SECTION X – STABILITY AND REACTIVITY

STABILITY: STABLE

CONDITIONS TO AVOID: SENSITIVE TO MOISTURE.

MATERIALS TO AVOID: POTASSIUM ACID ANHYDRIDES.

HAZARDOUS DECOMPOSITION PRODUCTS: BORON OXIDES.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

SECTION XI – TOXICOLOGICAL INFORMATION

ROUTE OF EXPOSURE

SKIN CONTACT: MAY CAUSE SKIN IRRITATION.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

EYE CONTACT: MAY CAUSE EYE IRRITATION.

INHALATION: MAY BE HARMFUL IF INHALED. MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

INGESTION: MAY BE HARMFUL IF SWALLOWED.

TARGET ORGANS OR SYSTEMES: TESTES

RTECS NUMBER: ED4550000

SIGNS AND SYMPTOMS OF EXPOSURE: TOXICITY REPORTED FOR BORATES IN HUMANS: INGESTION OR ABSORPTION MAY CAUSE NAUSEA, VOMITING, DIARRHEA, ABDOMINAL CRAMPS, ANDERYTHEMATOUS LESIONS ON THE SKIN AND MUCOUS MEMBRANES. OTHER SYMPTOMS INCLUDE: CIRCULATORY COLLAPSE. TACHYCARDIA, CYANOSIS, DELIRIUM, CONVULSIONS AND COMA. DEATH HAS BEEN REPORTED OT OCCUR IN INFANTS FROM LESS THAN 5 GRAMS AND IN ADULTS FROM 5 TO 20 GRAMS.

SECTION XII – ECOLOGICAL INFORMATION

NO DATA AVAILABLE.

SECTION XIII – DISPOSAL CONSIDERATIONS

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL. DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION XIV – TRANSPORT INFORMATION

DOT – PROPER SHIPPING NAME: NONE

NON-HAZARDOUS FOR TRANSPORT: THIS SUBSTANCE IS CONSIDERED TO BE NON-HAZARDOUS FOR TRANSPORT.

IATA – NON-HAZARDOUS FOR AIR TRANSPORT

SECTION XV – REGULATORY INFORMATION

US CLASSIFICATION AND LABEL TEXT

US STATEMENTS: CAUTION: AVOID CONTACT AND INHALATION. TARGET ORGANS: TESTES.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: NO

TSCA INVENTORY ITEM: YES

CANADA REGULATORY INFORMATION

WHMIS CLASSIFICATION: 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: YES

NDSL: NO

SECTION XVI – OTHER INFORMATION

FOR R&D USE ONLY. NOT FOR DRUG, HOUSEHOLD OR OTHER USES.

REVISION DATE 09/22/05