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## M A T E R I A L S A F E T Y D A T A S H E E T

## SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -

CATALOG #: 339075  
 NAME: BORON OXIDE, 99.98%

## SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

CAS #: 1303-86-2  
 MF: B2O3  
 EC NO: 215-125-8

## SYNONYMS

BORIC ANHYDRIDE \* BORON OXIDE (ACGIH:OSHA) \* BORON SESQUIOXIDE \*  
 BORON TRIOXIDE \* DIBORON TRIOXIDE \* FUSED BORIC ACID \*

## SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -

## LABEL PRECAUTIONARY STATEMENTS

IRRITANT  
 IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.  
 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF  
 WATER AND SEEK MEDICAL ADVICE.  
 WEAR SUITABLE PROTECTIVE CLOTHING.  
 HYGROSCOPIC  
 KEEP TIGHTLY CLOSED.

## SECTION 4. - - - - - FIRST-AID MEASURES- - - - -

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS  
 AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED  
 CLOTHING AND SHOES.  
 ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS  
 WITH FINGERS.  
 IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL  
 RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.  
 IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.  
 CALL A PHYSICIAN.

## SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

## EXTINGUISHING MEDIA

NONCOMBUSTIBLE.

## SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO  
 PREVENT CONTACT WITH SKIN AND EYES.

## SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY  
 RUBBER GLOVES.  
 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 7. - - - - - HANDLING AND STORAGE- - - - -

REFER TO SECTION 8.

## SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

CHEMICAL SAFETY GOGGLES.  
 SAFETY SHOWER AND EYE BATH.  
 NIOSH/MSHA-APPROVED RESPIRATOR.  
 MECHANICAL EXHAUST REQUIRED.  
 WEAR HEAVY RUBBER GLOVES.  
 DO NOT BREATHE DUST.  
 AVOID CONTACT WITH EYES, SKIN AND CLOTHING.  
 WASH THOROUGHLY AFTER HANDLING.  
 IRRITANT.  
 STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

APPEARANCE AND ODOR  
 WHITE CRYSTALLINE POWDER

PHYSICAL PROPERTIES  
 SPECIFIC GRAVITY: 2.460  
 VAPOR DENSITY: >1

SECTION 10. - - - - - STABILITY AND REACTIVITY - - - - -

INCOMPATIBILITIES  
 ACIDS  
 PROTECT FROM MOISTURE.  
 HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS  
 NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS  
 MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.  
 CAUSES EYE AND SKIN IRRITATION.  
 MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER  
 RESPIRATORY TRACT.  
 EXPOSURE CAN CAUSE:  
 COUGHING, CHEST PAINS, DIFFICULTY IN BREATHING.

RTECS #: ED7900000  
 BORON OXIDE

IRRITATION DATA  
 SKN-RBT 1 GM AIHAAP 20,284,1959  
 EYE-RBT 50 MG AIHAAP 20,284,1959

TOXICITY DATA  
 ORL-MUS LD50:3163 MG/KG 85GMAT -,27,1982  
 IPR-MUS LD50:1868 MG/KG 85GMAT -,27,1982  
 ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES  
 (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR  
 COMPLETE INFORMATION.

SECTION 12. - - - - - ECOLOGICAL INFORMATION - - - - -

DATA NOT YET AVAILABLE.

SECTION 13. - - - - - DISPOSAL CONSIDERATIONS - - - - -

BURY IN A LANDFILL SITE APPROVED FOR THE DISPOSAL OF CHEMICAL  
 AND HAZARDOUS WASTES.  
 OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - TRANSPORT INFORMATION - - - - -

CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - REGULATORY INFORMATION - - - - -

EUROPEAN INFORMATION  
 IRRITANT  
 R 36/37/38  
 IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.  
 S 26  
 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF  
 WATER AND SEEK MEDICAL ADVICE.  
 S 36  
 WEAR SUITABLE PROTECTIVE CLOTHING.

REVIEWS, STANDARDS, AND REGULATIONS  
 OEL=MAK  
 ACGIH TLV-TWA 10 MG/M3 DTLVS\* TLV/BEI,1999  
 EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION  
 FEREAC 54,7740,1989  
 MSHA STANDARD-AIR:TWA 10 MG/M3  
 DTLVS\* 3,26,1971  
 OSHA PEL (GEN INDU):8H TWA 15 MG/M3, TOTAL DUST  
 CFRGBR 29,1910.1000,1994  
 OSHA PEL (CONSTRUC):8H TWA 15 MG/M3, TOTAL DUST  
 CFRGBR 29,1926.55,1994  
 OSHA PEL (SHIPYARD):8H TWA 15 MG/M3, TOTAL DUST  
 CFRGBR 29,1915.1000,1993  
 OSHA PEL (SHIPYARD):8H TWA 5 MG/M3, RESPIRABLE FRACTION  
 CFRGBR 29,1915.1000,1993  
 OSHA PEL (FED CONT):8H TWA 15 MG/M3  
 CFRGBR 41,50-204.50,1994  
 OEL-AUSTRIA: MAK 15 MG/M3, JAN1993

OEL-DENMARK: TWA 10 MG/M3, JAN1999  
OEL-FRANCE: VME 10 MG/M3, JAN1999  
OEL-GERMANY: MAK 15 MG/M3, JAN1999  
OEL-THE NETHERLANDS: MAC-TGG 10 MG/M3, JAN1999  
OEL-NORWAY: TWA 10 MG/M3, JAN1999  
OEL-THE PHILIPPINES: TWA 15 MG/M3, JAN1993  
OEL-POLAND: MAC(TWA) 10 MG/M3, JAN1999  
OEL-SWITZERLAND: MAK-W 10 MG/M3, KZG-W 50 MG/M3, JAN1999  
OEL-UNITED KINGDOM: TWA 10 MG/M3, STEL 20 MG/M3, SEP2000  
OEL IN ARGENTINA, BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV;  
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV  
NIOSH REL TO BORON OXIDE, TOTAL DUST-AIR:10H TWA 10 MG/M3  
NIOSH\* DHHS #92-100,1992  
NOHS 1974: HZD 12963; NIS 69; TNF 2563; NOS 49; TNE 15319  
NOES 1983: HZD 12963; NIS 112; TNF 10437; NOS 78; TNE 162342; TFE 18457  
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY  
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001

SECTION 16. - - - - - OTHER INFORMATION- - - - -  
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