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Aldrich Chemical Co., Inc.
1001 West St. Paul
Milwaukee, WI 53233 USA
Tel: 414-273-3850

MATERIAL SAFETY DATA SHEET

SECTION 1. - - - - - - - - CHEMICAL IDENTIFICATION - - - - - - - -
CATALOG #: 339075
NAME: BORON OXIDE, 99.98%

SECTION 2. - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - -
CAS #: 1303-86-2
MF: B203
EC NO: 215-125-8
SYNONYMS
BORIC ANHYDRIDE * BORON OXIDE (ACGIH:OSHA) * BORON SESQUIOXIDE *
BORON TRIOXIDE * DBORON 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.
HYDROSCOPIC
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 #: ED900000
BORON OXIDE

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

TOXICITY DATA
ORL-HUS LD50:3163 MG/KG  85GMAT ,.27,1982
IPR-HUS 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
EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION
FERAC 54,7740,1989
MSHA STANDARD-AIR:TWA 10 MG/M3
DTLV*S* 3,26,1971
OSHA PEL (GEN INDU):8H TWA 15 MG/M3, TOTAL DUST
CFRGRB 29,1910.1000,1994
OSHA PEL (CONSTRUC):8H TWA 15 MG/M3, TOTAL DUST
CFRGRB 29,1926.55,1994
OSHA PEL (SHIPYARD):8H TWA 15 MG/M3, TOTAL DUST
CFRGRB 29,1915.1000,1993
OSHA PEL (SHIPYARD):8H TWA 5 MG/M3, RESPIRABLE FRACTION
CFRGRB 29,1915.1000,1993
OSHA PEL (FED CONT):8H TWA 15 MG/M3
CFRGRB 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: MAK(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
NOS 1974: HZD 12963; NIS 69; TNF 2563; NOS 49; TNE 15319
NOS 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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