

MATERIAL SAFETY DATA SHEET

EM SCIENCE

PO84991

11. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER.....:

PREPARATION DATE.: 12/10/92
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EM SCIENCE
A DIVISION OF EM INDUSTRIES
P.O. BOX 70
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INFORMATION PHONE NUMBER.: 609-354-9200
HOURS: MON. TO FRI. 8:30-5
CHEMTREC EMERGENCY NUMBER: 800-424-9300
HOURS: 24 HRS A DAY

CATALOG NUMBER(S):

SX0350 SX0355 SX0365

CHEMICAL NAME.....:

SODIUM BORATE, DECAHYDRATE

TRADE NAME.....:

SODIUM TETRABORATE; BORAX

CHEMICAL FAMILY...: INORGANIC SALT

FORMULA.....: 1000 PPM BA IN SOLUTION

MOLECULAR WEIGHT.: 381.42

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS #	APPR %
SODIUM BORATE, DECAHYDRATE	1303-96-4	100%

13. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

MAY BE HARMFUL IF INHALED OR SWALLOWED.

MAY CAUSE DAMAGE TO RESPIRATORY AND CENTRAL NERVOUS SYSTEMS.

APPEARANCE.....:

WHITE CRYSTALS OR POWDER

ODORLESS

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

SYMPTOMS OF EXPOSURE:

MAY BE HARMFUL IF SWALLOWED OR INHALED.

INGESTION MAY CAUSE NAUSEA, HEADACHE, DIARRHEA, SHOCK,

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CENTRAL NERVOUS SYSTEM DISTURBANCES

MEDICAL COND. AGGRAVATED BY EXPOSURE:
DATA NOT AVAILABLE.

ROUTES OF ENTRY.....:
INHALATION, INGESTION

CARCINOGENICITY.....:
THE MATERIAL IS NOT LISTED (IARC, NTP, OSHA) AS CANCER CAUSING
AGENT.

4. FIRST AID MEASURES

EMERGENCY FIRST AID:

GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.

EYES: IMMEDIATELY FLUSH THOROUGHLY WITH WATER FOR AT LEAST 15
MINUTES.

SKIN: IMMEDIATELY FLUSH THOROUGHLY WITH LARGE AMOUNTS OF WATER.
INHALATION: REMOVE TO FRESH AIR; GIVE ARTIFICIAL RESPIRATION IF
BREATHING HAS STOPPED.

INGESTION: IF CONSCIOUS, DRINK WATER AND INDUCE VOMITING
IMMEDIATELY AS DIRECTED BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING
BY MOUTH TO AN UNCONSCIOUS PERSON.

5. FIRE FIGHTING MEASURES

FLASH POINT (F).....: NONCOMBUSTIBLE

FLAMMABLE LIMITS LEL (%): N/A

FLAMMABLE LIMITS UEL (%): N/A

EXTINGUISHING MEDIA.....:

USE ANY SUITABLE FOR ADJACENT MATERIAL.

FIRE FIGHTING PROCEDURES.:

WEAR SELF-CONTAINED BREATHING APPARATUS.

FIRE & EXPLOSION HAZARDS.:

NONE INDICATED

6. ACCIDENTAL RELEASE MEASURES

SPILL RESPONSE:

EVACUATE THE AREA OF ALL UNNECESSARY PERSONNEL.

WEAR SUITABLE PROTECTIVE EQUIPMENT LISTED UNDER EXPOSURE /
PERSONAL PROTECTION.

ELIMINATE ANY IGNITION SOURCES UNTIL THE AREA IS DETERMINED TO BE
FREE FROM EXPLOSION OR FIRE HAZARDS.

CONTAIN THE RELEASE AND ELIMINATE ITS SOURCE, IF THIS CAN BE DONE
WITHOUT RISK.

TAKE UP AND CONTAINERIZE FOR PROPER DISPOSAL AS DESCRIBED UNDER DISPOSAL.
COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS ON REPORTING RELEASES. REFER TO REGULATORY INFORMATION FOR REPORTABLE QUANTITY AND OTHER REGULATORY DATA.

7. HANDLING AND STORAGE

HANDLING & STORAGE:

KEEP CONTAINER CLOSED.
STORE AT CONTROLLED ROOM TEMPERATURE.
DO NOT GET IN EYES.
DO NOT BREATHE DUST.
AVOID PROLONGED, OR REPEATED, SKIN CONTACT.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT:

VENTILATION, RESPIRATORY PROTECTION, PROTECTIVE CLOTHING, EYE PROTECTION
MATERIAL SHOULD BE HANDLED OR TRANSFERRED IN AN APPROVED FUME HOOD OR WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES (NEOPRENE, PVC OR EQUIVALENT) SHOULD BE WORN TO PREVENT SKIN CONTACT
SAFETY GLASSES WITH SIDE SHIELDS SHOULD BE WORN AT ALL TIMES.

WORK / HYGENIC PRACTICES:

WASH THOROUGHLY AFTER HANDLING.
DO NOT TAKE INTERNALLY.
EYE WASH AND SAFETY EQUIPMENT SHOULD BE READILY AVAILABLE.

EXPOSURE GUIDELINES

OSHA - PEL:

COMPONENT	PPM	TWA MG/M3	PPM	STEL MG/M3	PPM	CL MG/M3	SKIN
SODIUM BORATE, DECAHYDRATE		10					

ACGIH - TLV:

COMPONENT	PPM	TWA MG/M3	PPM	STEL MG/M3	PPM	CL MG/M3	SKIN
SODIUM BORATE, DECAHYDRATE		1					

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (C 760 MMHG)..: 1575C (DECOMP.)
MELTING POINT (C).....: 75-320C
SPECIFIC GRAVITY (H2O = 1)..: 1.73
VAPOR PRESSURE (MM HG).....: N/A 20C
PERCENT VOLATILE BY VOL (%): N/A
VAPOR DENSITY (AIR = 1).....: N/A
EVAPORATION RATE (BUAC = 1): N/A
SOLUBILITY IN WATER (%): SOLUBLE
APPEARANCE.....:
WHITE CRYSTALS OR POWDER
ODORLESS

10. STABILITY AND REACTIVITY

STABILITY.....: YES

HAZARDOUS POLYMERIZATION:
DOES NOT OCCUR

HAZARDOUS DECOMPOSITION.:
NA2O

CONDITIONS TO AVOID.....:
NONE INDICATED

MATERIALS TO AVOID.....:

() WATER
(X) ACIDS
() BASES
() CORROSIVES
() OXIDIZERS
(X) OTHER :
METALLIC SALTS

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:

ORL-MAN LDLO: 709 MG/KG
ORL-RAT LD50: 2660 MG/KG

ORL-INF LDLO: 1000 MG/KG

TOXICOLOGICAL FINDINGS:

TESTS ON LABORATORY ANIMALS INDICATE MATERIAL MAY PRODUCE ADVERSE
MUTAGENIC AND REPRODUCTIVE EFFECTS.
CITED IN REGISTRY OF TOXIC EFFECTS OF SUBSTANCES (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA WASTE NUMBERS:

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TREATMENT:

MATERIAL DOES NOT HAVE AN EPA WASTE NUMBER AND IS NOT A LISTED WASTE, HOWEVER CONSULTATION WITH A PERMITTED WASTE DISPOSAL SITE (TSD) SHOULD BE ACCOMPLISHED.

ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

13. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME...:
NON-REGULATED

DOT ID NUMBER.....: NONE

14. REGULATORY INFORMATION

TSCA INVENTORY.....:

THE CAS NUMBER OF THIS PRODUCT IS LISTED ON THE TSCA INVENTORY.

COMPONENT	SARA EHS (302)	SARA EHS TPQ (LBS)	CERCLA RQ (LBS)

SODIUM BORATE, DECAHYDRATE			

COMPONENT	OSHA FLOOR LIST	SARA 313	DEMINIMIS FOR SARA 313 (%)

SODIUM BORATE, DECAHYDRATE Y			

15. OTHER INFORMATION

COMMENTS:

NONE

NFPA HAZARD RATINGS:

HEALTH : 0
FLAMMABILITY : 0
REACTIVITY : 0
SPECIAL HAZARDS :

REVISION HISTORY:

05/01/84 08/01/84 12/04/86 10/27/87 03/01/91

I = REVISED SECTION

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N/A = NOT AVAILABLE
N/E = NONE ESTABLISHED

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