

Harcros Chemicals Inc

Kansas City, Kansas

MATERIAL SAFETY DATA SHEET Page 1

PRODUCT NAME : BORIC ACID TECH  
PRODUCT CODE : 02376

50# BAG-GRA

Date: 7-DEC-1998 09:00:13.37

CAS #: 010043353

MSDS No. 000338

Revision No./Date 02 940815  
Detail Number 00122/02

FORMULA: H3 B O3  
CHEM. FAMILY: inorganic bases

CHEMICAL NAME AND SYNONYMS:

Boric Acid;  
Hydrogen Orthoborate;  
Borid;  
Boracic Acid;  
O-Boric Acid;  
Orthoboric Acid;  
MSDS 000338 DETAIL 00122

SUPPLIERS NAME : Harcros Chemicals Inc.  
5200 Speaker Road  
Kansas City KS 66106-1095

SUPPLIERS PHONE NUMBER : 913-321-3131  
TRANSPORTATION EMERGENCY PHONE NUMBER : 1-800-424-9300

S.A.R.A. INFORMATION

HAZARDS : Acute  
PHYSICAL DATA : Pure Solid

SECTION I HAZARDOUS INGREDIENTS

Ingredient Cas Number	MAX % W/W	SARA APPLIES			AIR CONTAMINENT LEVELS				
		312	313	372	TWA/TLV (ppm)	STEL (ppm)	CEIL (ppm)	SKIN	AGENT
Boric Acid Orthoboric Acid (CAS # 10043-35-3 )	100.0	Y	N	N	As Boron Oxide Total Dust Total Dust Respirable Dust	TLV 10 mg/m3 TWA 10 mg/m3 TWA 5 mg/m3	ACGIH OSHA OSHA		

SECTION II HEALTH HAZARDS

POTENTIAL EFFECTS OF EXPOSURE  
EYES

Eye contact with product may cause irritation

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SECTION II HEALTH HAZARDS

(CONTINUED)

SKIN

Skin contact may cause irritation redness  
Prolonged or repeated skin contact may cause drying redness

INHALATION

Inhalation may cause irritation

INGESTION

Ingestion may cause irritation pain diarrhea nausea vomiting shock symptoms (rapid pulse, sweating, collapse)  
coma even death central nervous system (CNS) depression Symptoms of early to moderate central nervous system (CNS) depression include giddiness, dizziness, confusion, drunken behavior, headache, nausea, diarrhea, vomiting, tiredness and drowsiness. In extreme cases, symptoms of central nervous system (CNS) depression include stupor, convulsions, unconsciousness, coma, and even death.

TARGET ORGANS

OVEREXPOSURE MAY CAUSE DAMAGE TO,  
DISORDERS OF, OR ADVERSELY AFFECT THE FOLLOWING SYSTEMS, FUNCTIONS, ORGANS: central nervous system life cycle

ANIMAL TEST DATA

BASED ON LABORATORY TEST DATA,  
OVEREXPOSURE MAY CAUSE DAMAGE TO, DISORDERS OF, OR ADVERSELY AFFECT THE FOLLOWING SYSTEMS, FUNCTIONS, OR ORGANS:, reproductive system, fetus

FIRST AID

FIRST AID EYES

Immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids apart to ensure flushing of entire surface. Call a physician.

FIRST AID SKIN

Immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse. Call a physician.

FIRST AID INHALATION

Remove to fresh air. If not breathing give artificial respiration, preferably mouth to mouth. If breathing is difficult give oxygen. Call a physician.

FIRST AID INGESTION

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician.

OTHER INFORMATION

ROUTES OF ENTRY

eye contact skin contact inhalation  
OVEREXPOSURE MAY AGGRAVATE DISORDERS OF THE  
kidneys liver central nervous system

SECTION III SPECIAL PROTECTION

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Date: 7-DEC-1998 09:00:14.52

SECTION III SPECIAL PROTECTION

(CONTINUE

PROTECTIVE EQUIPMENT

PROTECTIVE EQUIPMENT EYES

goggles Always wear eye protection when working with chemicals. Do Not wear contact lenses when working with chemicals.

PROTECTIVE EQUIPMENT SKIN

clean body covering clothing impervious gloves

PROTECTIVE EQUIPMENT INHALATION

If exposure limits are exceeded, or if exposure may occur, use a NIOSH/MSHA respirator approved for your conditions of exposure. Refer to the most recent NIOSH publications concerning chemical hazards, or consult your safety equipment supplier. Respiratory protection programs must be in compliance with OSHA requirements in 29 CFR 1910.134. For emergencies, a NIOSH/MSHA approved positive pressure breathing apparatus should be readily available.

VENTILATION REQUIRED:

Adequate ventilation is required to minimize exposure or to maintain exposure levels below OSHA/ACGIH requirements. Local mechanical ventilation may be required.

ADDITIONAL PROTECTIVE MEASURES

Safety shower, eye wash fountain, and washing facilities should be readily available.

SECTION IV FIRE & EXPLOSION HAZARD DATA

Flash Point (METHOD): > OR = N/A

Flammable Limits (% Volume in Air)

UPPER: N/D

Lower: N/D

HMIS Info

Health : 1  
Fire : 0  
React : 0  
Special : X

EXTINGUISHING MEDIA

media appropriate for surrounding fire

FIRE FIGHTING PROCEDURES

Prevent human exposure to fire, fumes, smoke, and products of combustion. Evacuate non essential personnel. Firefighters should wear full face, self contained breathing apparatus and impervious protective clothing. Not considered a fire hazard.

UNUSUAL FIRE & EXPLOSION HAZARDS

none currently known

SECTION V PHYSICAL DATA

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SECTION V PHYSICAL DATA

(CONTINUED)

Boiling Point: N/D  
Freezing Point: 340 deg. F  
Specific Gravity (H<sub>2</sub>O=1): > OR = 1.4350 @ 68 deg. F  
Vapor Pressure (MM HG.): > OR = 15.000 @ 70 deg. F  
Vapor Density (AIR=1) : N/D  
Evaporation Rate ( NA =1): N/D  
Solubility in Water: 3%  
Percent Volatile by Volume: N/D  
pH: aqueous approx. 4.900 to 5.300  
Appearance:  
SOLID - POWDER, CRYSTAL, FLAKE, GRANULE  
TABLET, PRILL, BRIQUETTE, ETC.  
Odor :  
NIL

SECTION VI REACTIVITY DATA

STABILITY

Stable

INCOMPATIBILITY

metals/metal blends Contact with some metals can generate explosive hydrogen gas. Avoid contact with strong reducing agents which include hydrogen, hydrazine, sulfides, sulfites, and nitrites.

HAZARDOUS DECOMPOSITION PRODUCTS

carbon monoxide carbon dioxide

HAZARDOUS POLYMERIZATION

Will not occur

SECTION VII SPILL AND LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Evacuate non essential personnel, eliminate ignition sources, and wear protective equipment (See Section III). Shut off source of leak only if safe to do so. Contain spill. Recover free product. To clean up residue, flush sparingly with water or use an absorbent. Avoid runoff to ground water, surface waters, and sewers. It may be necessary to remove contaminated soil. If product is flammable or combustible, use non sparking tools. If acidity (low pH) is a problem, neutralize with hydrated lime, soda ash, or sodium bicarbonate. If alkalinity (high pH) is a problem neutralize with dilute acetic acid or dilute hydrochloric (muriatic) acid. If required, notify state and local authorities.

DISPOSAL METHOD

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SECTION VII SPILL AND LEAK PROCEDURES

(CONTINUED)

Solids must be disposed of in a permitted waste management facility. Recovered liquids may be reprocessed or incinerated. Incineration must be handled in a permitted hazardous waste management facility. Dispose of material in accordance with all Federal, State and local regulations. Local regulations may be more stringent than Federal or State.

SECTION VIII

Proper Shipping Name: UNCLASSIFIED

Label Requirements: NONE  
Reportable Quantity: None

SECTION IX ADDITIONAL INFORMATION

PRECAUTIONS

Wear protective equipment when handling. Use only with adequate ventilation. Wash thoroughly after handling. Do Not breathe dust. Do Not get in eyes, on skin, or clothing. Do not swallow.

STORAGE

Keep container closed when not in use. Store in a cool dry place. Tank and equipment manufacturers should be consulted concerning the storage and transportation of this product. Keep out of reach of children.

NAME: GENE TURNER

DATE ISSUED: 930322  
DATE REVISED: 940815  
UNK = UNKNOWN

< = LESS THAN  
> = MORE THAN

N/A = NOT APPLICABLE  
N/D = NOT DETERMINED  
N/E = NOT ESTABLISHED

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