Material Safety Data Sheet

Boric Acid LR (RXSOL-60-6016-500)

1. Product and Company Identifaction

Product Name	Boric Acid LR
Product Type	RXSOL-60-6016-500

Company Details:
RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Stock Point ::: Kandla, Mumbai, Kolkata - Haldia, Visakhapatnam, Chennai - Ennore, Fujairah

Phone	+91 22 27815540 / 41 / 42
Fax	+91 22 2781 1318 :::AOH :0091 9322594669
Email	mail@rxmarine.com

2. Composition / informationon ingredients

Name	CAS #	% by Weight
Boric acid	10043-35-3	100

?Toxicological Data on Ingredients:
Boric acid: ORAL (LD50): Acute: 2660 mg/kg [Rat]. 3450 mg/kg [Mouse].

3. Hazards Identification

Potential Acute Health Effects:
Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/ toxin/male [POSSIBLE]. The substance may be toxic to kidneys, cardiovascular system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

4. First Aid Measures

Eye Contact:	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact:	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact:	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation:	Not available.

Ingestion:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
Serious Ingestion:	Not available.

5. Fire-fighting Measures

Flammability of the Product:	Non-flammable.
Auto-Ignition Temperature:	Not applicable.
Flash Points:	Not applicable.
Flammable Limits:	Not applicable.
Products of Combustion:	Not available.
Fire Hazards in Presence of Various Substances:	Not applicable.
Explosion Hazards in Presence of Various Substances:	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions:	Not applicable.
Special Remarks on Fire Hazards:	Not available.
Special Remarks on Explosion Hazards:	A mixture of potassium and boric acid may explode on impact. A mixture of boric acid and acetic anydride will explode when heated to 58-60 C

6. Accidental Release Measures

Small Spill:	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill:	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

7. Handling and Storage

Precautions:
Keep locked up.. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as alkalis.

Storage:
Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 23°C (73.4°F).

8. Exposure controls and personal protection

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:
Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
Not available.

9. Physical and chemical properties

Physical state and appearance:	Solid. (Powdered solid.)
Odor:	Odorless.

Taste:	(Slight.)
Molecular Weight:	61.83 g/mole
Color:	White.
pH (1% soln/water):	5.2 [Acidic.]
Boiling Point:	300°C (572°F)
Melting Point:	169°C (336.2°F)
Critical Temperature:	Not available.
Specific Gravity:	1.435 (Water = 1)
Vapor Pressure:	Not applicable.
Vapor Density:	Not available.
Volatility:	Not available.
Odor Threshold:	Not available.
Water/Oil Dist. Coeff.:	Not available.
Ionicity (in Water):	Not available.
Dispersion Properties:	See solubility in water, methanol.
Solubility:	Soluble in hot water, methanol. Partially soluble in cold water. Very slightly soluble in acetone.

10. Stability and reactivity

Stability:	The product is stable.
Instability Temperature:	Not available.
Conditions of Instability:	High temperatures, dust generation, incompatible materials.
Incompatibility with various substances:	Reactive with alkalis.
Corrosivity:	Not available.
Special Remarks on Reactivity:	Incompatible with Potassium , Acetic Anhydride. Reacts with basic materials to form borate salts.
Special Remarks on Corrosivity:	Not available.
Polymerization:	Will not occur.

11. Toxicological information

Routes of Entry:	Absorbed through skin. Inhalation. Ingestion.
Toxicity to Animals:	Acute oral toxicity (LD50): 2660 mg/kg [Rat].
Chronic Effects on Humans:	MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [POSSIBLE]. May cause damage to the following organs: kidneys, cardiovascular system, central nervous system (CNS).
Other Toxic Effects on Humans:	Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animals:	Not available.
Special Remarks on Chronic Effects on Humans:	May cause adverse reproductive effects (fertility, fetoxicity) based on animal studies. May affect genetic material. May cause teratogenic effects based on animal studies.
Special Remarks on other Toxic Effects on Humans:	Acute Potential Health Effects: Skin: May cause skin irritation. May be absorbed throuogh damaged or abraded skin in harmful amounts. If absorbed through skin it may affect behavior, sense organs, metabolism, the gastrointestinal tract, and the respiratory tract (respiratory depression) Eyes: Dust causes eye irritation. Inhalation: Dust causes respiratory tract irritation. Ingestion: Causes digestive (gastrointestinal) tract irritation with nausea, vomiting and diarrhea. May also affect behavior, brain, the Central Nervous System (depression, headache, dizziness, drowsiness, collapse, unconsciousness, coma), Peripheral Nervous System, cardiovascular system, blood, liver, urinary system (kidney, ureter, bladder) and endocrine system . Chronic Potential Health Effects: Boric acid can accumlate in the body (brain, bone) with repeated exposure. Prolonged or repeated skin contact may cause dermatitis. May cause borism characterized by dry skin, skin eruptions, and gastric disturbances.

12. Ecological information

Ecotoxicity:	Not available.
BOD5 and COD:	Not available.
Products of Biodegradation:	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation:	The product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation:	Not available.

13. Disposal considerations

NA

14. Transport information

DOT Classification:	Not a DOT controlled material (United States).
Identification:	Not applicable.
Special Provisions for Transport:	Not applicable.

15. Regulatory information

Federal and State Regulations:
TSCA 8(b) inventory: Boric acid

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada):
CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC):
Irritating to eyes and skin. R40- Possible risks of irreversible effects. R62- Possible risk of impaired fertility. S24/25- Avoid contact with skin and eyes.

HMIS (U.S.A.):

Health Hazard:	2
Fire Hazard:	
Reactivity:	
Personal Protection:	E

National Fire Protection Association (U.S.A.):

Health:	1
Flammability:	0
Reactivity:	0
Specific hazard:	

Protective Equipment:
Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

16. Other information

The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications usage in such may cause risks not mentioned in this sheet. Do not use

for other application(s) without seeking advice from manufacturer.