Material Safety Data Sheet

BO Electrolyte (RXSOL-40-4062-025)

1. Product and Company Identifaction

Product Name	BO Electrolyte
Part Number	RXSOL-40-4062-025

Company Details:

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

Branch : Kandla, Mumbai , Chennai, Vizag, Kolkata, UAE , OMAN , CANADA and KENYA

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Email	mail@rxmarine.com
Website	www.rxmraine.com

2. Composition / informationon ingredients

Chemical Name	CAS	EC number	Weight
Phosphoric Acid	7664-38-2	231-633-2	35 - 65%
Sulphuric Acid	7664-93-9	231-639-5	30 - 60%
Chromium (VI) Trioxide	1333-82-0	215-607-8	0 - 5%

3. Hazards Identification

Signal Word	Danger
Hazard Statements	H314 Causes severe skin burns and eye damage H302/H312 Harmful if swallowed or in contact with skin.
P280 Wear protective gloves.P305 + P351 + P338	Wear eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Precautionary statements	P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash … thoroughly after handling P270 Do not eat, drink or smoke when using this product P280 Wear protective gloves/protective clothing/eye protection/face protection P301+P312 IF SWALLOWED; Call a POISON CENTER or doctor/physician if you feel unwellP301+P361+P353 P302+P352 IF ON SKIN: Wash with soap and water P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing P310 Immediately call a POISON CENTER or doctor/……. P321 Specific treatment (see … on this label) P330 Rinse mouth P362 Take off contaminated clothing P364 And wash it before reuse P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Classification of the substance or mixture	Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.
Supplemental Hazard Statements	None.
Other hazards	No data available

4. First Aid Measures

Eye Contact	In case of contact with eyes rinse opened eyes under running water for at least 15 minutes and seek medical advice.
Skin Contact	In case of contact with skin wash off immediately with mild soap and plenty of water for at least 15 minutes. Seek medical advice. Wash contaminated clothing before reuse.
Inhalation	Using protective gear, evacuate victim from site of exposure. Have victim lie or sit comfortably. If he has difficulty breathing, have him sit with back straight and administer oxygen, if possible. If victim is unconscious, perform resuscitation and immediately transfer to medical personnel.
Ingestion	If large quantities of this material are swallowed, call a physician immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If victim is conscious give large quantities of milk to drink.
Most important symptoms and effects, both acute and delaye	Causes burns and irritation to skin and eyes. Very hazardous if ingested. May be toxic to blood, liver, skin, eyes, bone marrow
Indication of any immediate medical attention and special treatment needed	Notes to physician: Treat for phosphoric acid and sulfuric acid exposure. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
Special treatments	No specific treatment

5. Fire-fighting Measures

Suitable extinguishing media	Water.
Unsuitable extinguishing media	Alkaline Materials.
Special hazards arising from the substance or mixture	Acidic Liquids will be formed.
Hazardous combustion products	Corrosive materials
Advice for firefighters	Special protective equipment for fire fighters: Fire fighters should wear full protective clothing and self-contained breathing apparatus in positive pressure mode. Use water spray to cool unopened containers.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Evacuate personnel to safe areas. Wear protective clothing, rubber, plastic or Dacron apron, rubber or neoprene gloves, and Rubber boots. Avoid contact with skin eyes and inhalation of vapors. Ventilate area of spill.
Spillage	Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas dike if needed. Eliminate all ignition sources. Call for assistance on disposal.
Enviromental Precaution	Keep away from drains, surface and ground water.
Methods and materials for containment and cleaning	Hose down area around tank with running water. Absorb onto sand, vermiculite or any other non-combustible absorbent and collect for later disposal.
Reference to other sections	See Sections 1 for emergency contact information

7. Handling and Storage

Handling	Use with adequate ventilation. Do not breathe vapors. Wear protective equipment while handling, do not wear contact lenses. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Wash thoroughly after handling.
Hygiene measures	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. In case of spill, remove and discard clothing before reuse. Discard contaminated footwear. See also section 8 for additional information measures.
Precautions for safe handling	For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities	Storage: Store in cool, shaded, dry well-ventilated area. Keep away from incompatible materials such as strong alkalis(see section 10). Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Drains for storage or use areas for this material should have retention basins for pH adjustment and dilution of spills
Storage conditions	Tightly closed. Dry.
Storage class	Storage class (TRGS 510): 13: Non Combustible Solids
Specific end use(s)	No data available

8. Exposure controls and personal protection

Ingredient name	Occupational exposure limits
Phosphoric Acid	Short term value (15min); 2mg/m3 Long term value (8hr TWA); 1 mg/m3
Sulphuric Acid (mist)	Short term value (15min); n/a Long term value (8hr TWA); 0.05 mg/m3
Chromium (VI) Trioxide	Short term value (15min); n/a Long term value (8hr TWA); 0.05 mg/m3 Identified in IOLEV Directives – Carc, sen, BMGV - 10 ?mol chromium/mol creatinine in urine
Engineering Measures	Use process enclosures, local exhaust ventilation, or others engineering controls to keep airborne levels below recommend exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Keep away from alkaline materials.
Respiratory protection	Suitable respirator. Be sure to use an approved/certified or equivalent. Wear appropriate respirator when ventilation is inadequate.
Hand protection	Wear rubber or neoprene protective disposable gloves to prevent skin exposure.
Eye protection	Wear protective safety glasses.
Skin protection	Wear appropriate Full suit, Vapor respirator, Boots, Gloves, plastic or Dacron apron.
Environmental exposure controls	Not available

9. Physical and chemical properties

Physical state	Green Brown liquid
Colour	No data available
Odour	Odourless
Odor Threshold	Not Applicable
pH	0-1
Melting Point	Not Applicable
Boiling Point	No data available
Flash Point	No data available
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available
Explosive limits	No Data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity,kinematic	No data available
Vapour pressure	No data available
Density	Not Applicable
Relative Density	1.7 – 1.8 g/ml
Freezing point	No data available
Specific Gravity	No data available
Partition coefficient	No data available
Explosive properties	No data available
Solubility	Soluble in cold water, hot water.
Ignition temperature	No information available.
Particle characteristics	No data available

10. Stability and reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients
Stability	The product is stable under normal handling and storage conditions described in section 7.

Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	Reactive with alkaline materials.
Hazardous Polymerization	Corrosive materials

11. Toxicological information

Product/ingredient name	Test	Species	Dose
Phosphoric Acid	LD50 Oral LD50 Dermal	Rat Rabbit	1530 mg/kg 2740 mg/kg
Sulphuric Acid	LD50 Oral LD50 Vapour	Rat Rat (acute 2 hr) Mouse (acute 2hr)	2140 mg/kg 510 mg/m 320 mg/m
Chromium (VI) Trioxide	LD50 Oral	Rat (acute) Mouse (acute)	80 mg/kg 127 mg/kg

Skin corrosion/irritation	Causes skin burns.
Serious eye damage/eye irritation	Causes eye irritation and tissue damage on mucous membranes.
Respiratory or skin sensitization	No data available
Carcinogenicity	No data available
Germ cell mutagenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available

12. Ecological information

Toxicity	Toxicity to fish
Phosphoric Acid	No data available
Sulphuric Acid	Ecotoxicity in water (LC50): 49 mg/l 48 hours [bluegill/sunfish]
Chromium (VI) Trioxide	No data available
Persistence and Degradability	Possibly hazardous short term degradation products are unlikely. However, long term degradation products may arise. The products of degradation are less toxic than the product itself.
Bioaccumulative potential	
Toxicity to algae	Static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 17,7 mg/l - 72 h (OECD Test Guideline 201) Remarks: The value is given in analogy to the following substances: Sodium tungstate static test EC10 - Pseudokirchneriella subcapitata (green algae) - 5,76 mg/l - 72 h (OECD Test Guideline 201) Remarks: The value is given in analogy to the following substances: Sodium tungstate
Bioaccumulative potential	No Information available
Mobility in soil	No Information available
Results of PBT and vPvB assessment	No Information available
Other adverse effects	No Information available

13. Disposal considerations

Packaging	Empty containers should be taken for local recycling, recovery or waste disposal.
Product	Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport information

UN number	ADR/RID: 1760	IMDG: 1760	IATA:
UN proper shipping name	ADR/RID:Corrosive liquids, n.o.s.	IMDG: Corrosive liquids, n.o.s.	IATA:Corrosive liquids, n.o.s.
Transport hazard class(es)	ADR/RID: 8	IMDG: 8	IATA: 8
Packaging group	ADR/RID: II	IMDG: II	IATA: II
Environmental hazards	ADR/RID: No	IMDG: No	IATA: No

Special precautions for user	Tunnel restriction code : (C/E)
Further information	Not classified as dangerous in the meaning of transport regulations.
Transport in bulk according to IMOinstruments	No data available

15. Regulatory information

Phosphoric Acid(DSCL EEC)	R34- Causes burns. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S45-In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Sulphuric Acid (DSCL EEC)	R35- Causes severe burns. S2- Keep out of the reach of children. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S30- Never add water to this product. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Chromium (VI) Trioxide DSCL EEC)	R8- Contact with combustible material may cause fire. R25- Toxic if swallowed. R35- Causes severe burns. R43- May cause sensitization by skin contact. R49- May cause cancer by inhalation. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S53- Avoid exposure - obtain special instructions before use. S60- This material and its container must be disposed of as hazardous waste. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

16. Other information

Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and weassume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages. DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.