Material Safety Data Sheet

Sulphonic Acid (RXSOL-12-2550-030)

1. Product and Company Identifaction

Product Name	**RXSOL-19-2550-030**
Product Type	**Sulphonic Acid**

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / informationon ingredients

Contains	CAS No.	Parts	Symbol	R-Phrase
Sulfonic Acid	27176-87-0 Or 85117-49-3	>96%	C corrosive	R 22,34

3. Hazards Identification

Harmful if swallowed. Causes burns.
ADVERSE HUMAN HEALTH EFFECTS: The product is a corrosive substance. Contact With the eye may cause ocular lesions and Contact with wet skin may cause burns. It is seriously irritating to the mucous if swallowed. The product is harmful if ingested.
ENVIRONMENTAL EFFECTS: The product is not classified as dangerous to the environment. The user is advised to use anyway good work practice an to avoid contamination of the environment.
OTHER EFFECTS: The product is a strong acid which reacts exothermically with bases. Dilution with water produces heat.

4. First Aid Measures

General	Immediately remove contaminated clothing. Rinse with water.
Ingestion	Rinse mouth and provide fresh air. Dilute by drinking water copiously. Contact physician. The product may cause severe irritation of the mouth and oesophagus. If accidentally ingested. Do not induce vomiting. Call a physician immediately.
Skin	Wash the skin immediately with soap and water. SKIN CONTACT: The product may cause burns. Remove the contaminated clothing and wash with plenty of water and Get medical attention if any discomfort continues.call a physician.
Eyes	Promptly wash eyes with plenty of water while lifting the eyelids. Continue to rinse for at least 15 minutes.Get medical attention.

INHALATION: The product is not volatile. If under particular conditions such as in the case of fire, fumes or Aerosols are inhaled, remove the patient to a well-ventilated location and call a physician.
ANNOTATIONS TO A PHYSICIAN: The product is a high foaming anionic surfactant. If gastric lavage is necessary, then use silicon antifoam (dimethicone).

5. Fire-fighting Measures

Personal Precaution	Hand and eye protection. Spilled product gives a slippery surface. Precautions to protect
Environment	Do not discharge product into natural waters without pretreatment.
Spill Cleanup Methods	Contain with absorbent material and dispose. Flush area with water for smaller spills. Contain with absorbent material and dispose. Flush area with water for smaller spills.

GENERAL INFORMATION: The product poses little risk of ignition. If it happens to be involved in a fire, keep the tank cooled by means of a water spray in order to avoid decomposition of the product. SUITABLE EXTINGUISHING: Water spray, foam, carbon dioxide. MEDIA
NOT SUITABLE EXTINGUISHING: None in particular. MEDIA
SPECIFIC HAZARDS: Combustion produces carbon dioxide, carbon monoxide and oxides of Sulphur. When heated to decomposition, toxic fumes of SO2 and SO3 are emitted.
SPECIAL EQUIPMENTS : For large fires, wear self-contained breathing apparatus.

6. Accidental Release Measures

Personal Precaution	Hand and eye protection. Spilled product gives a slippery surface. Precautions to protect. Avoid direct contact with the product. Wear rubber gloves and rubber boots, face shield and keep close by a gas mask provided with a filter for acid vapours.
Environment	Do not discharge product into natural waters without pretreatment. Surround the spill with earth or sand. Collect the spilled material in suitable containers; if necessary absorb the spill into inert materials. Dispose of material according to the requirements of local law. In case of leaking into the sewer, inform the local authorities.
Spill Cleanup Methods	Contain with absorbent material and dispose. Flush area with water for smaller spills. Contain with absorbent material and dispose. Flush area with water for smaller spills. Neutralise the residue of the product with NaOH or with caustic lime. Wash the contaminated area with plenty of water. If the excessive foam is produced, use silicon-based antifoam to bring it down.

7. Handling and Storage

Handling	The usual precautions for handling chemicals should be observed See Section 8Eyewash bottles should be available
Storage	Keep only in the original container in a cool, well ventilated place (S3/9/49) Protect from frost

HANDLING: Avoid contact with the product. While handling the product, wear a protective apron, rubber or PVC gloves and a face shield. Handle the product in well-ventilated areas. Neutralize with the base under controlled conditions. Compatible materials are Stainless Steel, Mild Steel, and Plastic Materials. Incompatible with galvanised steel, aluminium and copper alloys.

8. Exposure controls and personal protection

Protective equipment	Protective gloves should be used if there is a risk of direct contact or splash.

Eye protection	Wear approved chemical safety goggles where eye exposure is reasonably probable.

PRECAUTIONARY MEASURES: Installation of an eyewash fountain is recommended. Do not eat, drink onto the workplace. When handling the product use approved protective clothing, rubber or PVC gloves, and a face shield.

PERSONAL PROTECTIVE: Wear safety goggles or a face shield and approved EQUIPMENT protective clothing.
THRESHOLD LIMIT VALUE: Not established.

REQUIREMENTS FOR PERIODIC: Specific measures are not foreseen. HEALTH

9. Physical and chemical properties

Appearance: Brown, viscous liquid with a penetrating odour.
Viscosity at 60°C ca. 200 cps.
Viscosity at 20°C ca. 1500 – 2000 MPa.s.
S.G. at 20°C 1.07 g/ml (MASS DENSITY)
Mol. Weight 322 +2
Neutralization # 179 mg KOH/g sulphonic acid
Flash point (°C) >90° (DIN 51758)
pH (1% solution) ca. 1.5 to 2
ODOUR: Of Sulphur.
NOMINAL ACTIVE MATTER CONC. : ~ 90% m/m.
AVEREAGE MOLECULAR MASS: ~ 326
SOLUBILITY AT 20 DEGREE C - Water : Soluble - Ethanol: Soluble - Acetone: Not Compatible - Aliphatic Hydrocarbons: Insoluble
MELTING RANGE: ~ -10 DEGREE C.
BOILING POINT: ~ 315 DEGREE C.
VAPOUR PRESSURE AT 20 C : BELOW 0.15 (0.001 mm Hg)
VAPOUR DENSITY (Air = 1) : Not Applicable to this Product.
FLASHPOINT (PMcc) : 210 DEGREE C.
AUTOIGNITION TEMPERATURE: Not Applicable to this product.
DECOMPOSITION TEMPERATURE : > 100 DEGREE C.
EXPLOSION PROPERTIES: Not pertinent to this product.
OXIDIZING PROPERTIES: Not pertinent to this product.

10. Stability and reactivity

Reactivity	Reacts with alkalis and generates heat.
Hazardous decomp. products	No hazardous decomposition products.

HAZARDOUS DECOMPOSTION PRODUCTS: In case of overheating, sulphur oxides can be emitted.
CONDITIONS TO AVOID : Do not heat above 90 degree centigrade.
MATERIALS TO AVOID : Neutralization with bases under uncontrolled conditions.
INTENDED USE AND TRANSFORMATION : The product may be neutralized under controlled conditions with the appropriate base to produce the corresponding salt.

11. Toxicological information

Health warnings	This chemical may cause skin/eye irritation and burns (corrosive). Gas or vapour may irritate respiratory system . Harmful if swallowed.

POSSIBLE ROUTES OF PENETRATION : Ingestion and contact.

INGESTION : Corrosive substance, harmful for ingestion. Oral acute LD50 : > 500 – 2000 mg/kg.
EYE CONTACT : Severe eye irritant. It may cause irreversible damage to the eyes.
SKIN CONTACT : Contact may cause ulcerations.
SENSITIZATION : Not Sensitizing.
INHALATION : Inhalation is possible only as an aerosol. Strong irritant to respiratory

12. Ecological information

LC-50 value for fish	1-5 mg/l

LC-50 value for Daphnia	15 mg/l
LC-50 value for algae	10-300 mg/l
Degradation	Readily biodegradable
Primary biodegradation	MBAS: 93-97%
Total biodegradation	Most: 73-84%
Closed bottle	55-65%
Sturm	45-76%

13. Disposal considerations

General/cleaning	Must be disposed of by special means, e.g. suitable incineration, in accordance with local regulations.

ENVIRONMENTAL DISTRIBUTION : Water is likely to be the main transport medium for the chemical, to estimate its possible environmental distribution.
PRIMARY BIODEGRADABILITY : > 90% (OECD screening test (sodium salt)). The surfactant fulfils the requisite minimum requirements of primary biodegradability.
ABIOTIC DEGRADABILITY : Not available.
ECOTOXITY : 2.49 mg O2/mg.
CHEMICAL OXYGEN DEMAND (COD) : Not available.
LOG P o/w : Not applicable, surface active substance.
BCF : Insufficient available information.

Dispose of product in authorised places / methods in observance with the current laws. It may be treated in a biological waste treatment plant.

14. Transport information

ADR UN No	2586
Class No	8
Item No	34c
Hazard No	80 Corrosive or slightly corrosive substance.
IMO UN No	2586
IMDG class	8
Packing gr	III
EmS No	8-06
MFAG No	700

IATA UN No	2586
ICAO class	8
Packing gr	III

UN CLASSIFICATION NUMBER: 2586
NAME OF THE DELIVERING PRODUCT: Sulphonic Acid
PACKING INSTRUCTION: P001
PACKAGING GROUP: III
CLASS: 8
MARINE POLLUTANT: NO
EMS NUMBER: F-A, S-B

15. **REGULATORY INFORMATION**

RISK PHRASES
R22 - Harmful if Swallowed
R34 - Causes Burns
SAFETY ADVICE
S26 - In case of contact with the eyes, rinse immediately with plenty of water and seek medical help. S28 - After contact with skin, wash immediately with plenty of water
S36/37/39 - Wear suitable protective clothing, gloves and eye face protection.

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