Material Safety Data Sheet

SODIUM SULPHATE (RXSOL-60-6605-574)

1. Product and Company Identifaction

Product Name	SODIUM SULPHATE
Part Number	RXSOL-60-6605-574

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

Phone	+91 22 20871200 - 1400
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Email	mail@rxmarine.com
Website	www.rxmraine.com

2. Composition / informationon ingredients

Chemical Name	CAS	EC number	Weight	Formula
Sodium sulfate	7757-82-6	231-820-9	100%	$SO_4.2Na$

3. Hazards Identification

Signal Word	None
Hazard Statements	None
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 response	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/ attention.
Classification of the substance or mixture	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
Other hazards	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Label elements	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

4. First Aid Measures

General advice	NA
If inhaled	After inhalation: fresh air.
Eye Contact	After eye contact: rinse out with plenty of water. Remove contact lenses.
Swallowed	After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.
Skin Contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
Inhalation	Remove patient to fresh air, keep warm and at rest and get medical assistance in necessary.

Ingestion	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.
Most important symptoms and effects, both acute and delaye	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed	No data available

5. Fire-fighting Measures

Flammability	May be combustible at high temperature.
Flash Point	Higher than 93.3°C (200°F).
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Special hazards arising from the substance or mixture	Sulfur oxides Sodium oxides Not combustible. Ambient fire may liberate hazardous vapours.
Further information	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.
Hazardous combustion products	Fire may cause the evolution of Sulphur oxides, nitrogen oxides.
Advice for firefighters	In the event of fire, wear self-contained breathing apparatus.
Protective Equipment	Use personal protective equipment.
Specific Hazards Arising from the Chemical	Has a fire-promoting effect due to the release of oxygen. Ambient fire may liberate hazardous vapours.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
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.
Personal Protection	Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: Protective equipment see section 8.
Enviromental Precaution	Do not let product enter drains
Methods and materials for containment and cleaning	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

7. Handling and Storage

Advice on safe handling	Work under hood. Do not inhale substance/mixture.
Advice on protection against fire and explosion	Provide appropriate exhaust ventilation at places where dust is formed.
Incompatible materials	Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills.
Hygiene measures	General industrial hygiene practice. For precautions see section 2.2.
Precautions for safe handling	For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities	Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.
Storage conditions	Tightly closed. Dry. hygroscopic
Storage class	Storage class (TRGS 510): 13: Non Combustible Solids
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Handling	Keep away from heat. Keep away from sources of ignition. Keep away from combustible material.. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. 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 reducing agents, combustible materials, organic materials, metals
Advice on general occupational hygiene	Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.
Requirements for storage	Keep in cool and store under shade.

8. Exposure controls and personal protection

Occupational Exposure limit values	No specific occupational exposure limit has been established.
Biological limit values	No data available
Exposure controls	No specific additional engineering controls are required. Provide good natural or artificial ventilation.
Engineering Control	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.
Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
Body Protection	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Skin protection	This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril®
Respiratory protection	Required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P1 The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
Other Protection Measure	Handle in accordance with good industrial hygiene and safety practice.
Control of environmental exposure	Do not let product enter drains.
Thermal hazards	No data available

9. Physical and chemical properties

Physical state	Crystalline
Colour	White
Odour	Odorless
Odor Threshold	Not Applicable
pH	5,2 - 8,0 at 50 g/l at 20 °C
Melting Point	888 °C
Boiling Point	108,9 °C
Flash Point	Not Applicable
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	> 400 °C
Decomposition temperature	> 890 °C
Vapour pressure	No data available
Density	2,70 g/cm3 at 20 °C
Vapour Density	No Data Available
Freezing point	No data available
Specific Gravity	No data available
Partition coefficient	No data available
Explosive properties	No data available
Solubility	445,5 g/l at 20 °C
Ignition temperature	No information available.
Particle characteristics	No data available

10. Stability and reactivity

Reactivity	No data available
Stability	The product is chemically stable under standard ambient conditions (room temperature) . The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	Risk of explosion with: smelt with Aluminum
Conditions to avoid	No data available
Incompatible materials	No data available.
Hazardous Polymerization	In the event of fire: see section 5

11. Toxicological information

Acute toxicity	LD50 Oral - Rat - female - > 2.000 mg/kg (OECD Test Guideline 423) Symptoms: Possible damages:, Nausea, Vomiting LC50 Inhalation - Rat - male and female - 4 h - > 2,4 mg/l - dust/mist (OECD Test Guideline 436) Remarks: (highest concentration to be prepared) Dermal: No data available
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)
Serious eye damage/eye irritation	Eyes - Rabbit Result: slight irritation - 24 h (Regulation (EC) No. 440/2008, Annex, B.5)
Respiratory or skin sensitization	Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)
Serious eye damage/eye irritation	No data available
Toxic Effects on Human	May cause damage to the following organs: upper respiratory tract. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung irritant, lung sensitizer).
Germ cell mutagenicity	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative Remarks: (ECHA) Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: Chromosome aberration test in vitro Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative
Reproductive toxicity	Presumed human reproductive toxicant
Specific target organ toxicity - single exposure	No data available
Additional Information	RTECS: AF3675000 Gastrointestinal disturbance To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. After uptake of large quantities: muscular symptoms agitation Convulsions Headache Tremors Nausea psychoses
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. RTECS: WE1650000 Nausea, Vomiting, cardiovascular disorders Systemic effects: After uptake of large quantities: cardiovascular disorders Symptoms in: Gastrointestinal tract However, when the product is handled appropriately, hazardous effects are unlikely to occur. Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances.
Bioaccumulative potential	No data available
Toxicity to fish	Static test LC50 - Pimephales promelas (fathead minnow) - 7.960 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - 1.766 mg/l - 48 h (US-EPA)
Toxicity to algae	Static test EC50 - Nitzschia sp. - 1.900 mg/l - 120 h Remarks: (ECHA)
Eco Toxicity	Not Available
COD and BOD 5	Not Available
Products Biodegradation	The methods for determining the biological degradability are not applicable to inorganic substances.
Mobility in soil	No Information available
Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher
Other adverse effects	Discharge into the environment must be avoided.

13. Disposal considerations

Disposal methods	The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.
Contaminated packaging	Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.
Waste treatment Method	See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

14. Transport information

UN number	ADR/RID: IMDG: IATA:
UN proper shipping name	ADR/RID: IMDG: IATA:
Transport hazard class(es)	ADR/RID: IMDG: IATA:
Packaging group	ADR/RID: IMDG: IATA:
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

Inventory status	Components are on the following inventories: Polymaleic acid: - US TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Philippine PICCS and Chinese Xi irritant R 36/38 Irritant to eyes & skin R 41 Risk of serious damage to eyes S24/25 Avoid contact with skin and eyes S26/28 In case of contact eyes & skin, rinse with plenty water and seek medical advice Section 312/313: Not listed. Not listed under California proposition 65.
Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Safety, health and environmental regulations specific for the product in question	European Inventory of Existing Commercial Chemical Substances (EINECS) -Listed.EC Inventory Listed. United States Toxic Substances Control Act (TSCA) Inventory- Listed. China Catalog of Hazardous chemicals 2015 Not- Listed. New Zealand Inventory of Chemicals (NZIoC)Listed. PICCS -Listed. Vietnam National Chemical Inventory -Listed. IECSC Listed. Korea Existing Chemicals List (KECL) -Listed.
National legislation	Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : OXIDISING LIQUIDS AND SOLIDS
Other regulations	Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out.

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.