Material Safety Data Sheet

ALUMINIUM SULFATE (RXSOL-19-1904-025)

1. Product and Company Identifaction

Product Name	ALUMINIUM SULFATE
Part Number	RXSOL-19-1904-025

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

Phone	+91 22 20871200 - 1400
Fax	+91 22 27612100 :::AOH :0091 9821214367
Email	mail@rxmarine.com
Website	www.rxmraine.com

2. Composition / informationon ingredients

Substances

Formula	Al2O12S3
Molecular weight	342,15 g/mol
CAS-No.	10043-01-3
EC-No.	233-135-0

Component	Classification	Concentration
Aluminium sulfate CAS-No. 10043-01-3 EC-No. 233-135-0	Met. Corr. 1; Eye Dam. 1; H290, H318	= 100 %

3. Hazards Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008	Corrosive to Metals (Category 1), H290 Serious eye damage (Category 1), H318 For the full text of the H-Statements mentioned in this Section, see Section 16.

Label elements

Signal Word	Danger
Hazard statement(s)	H290 May be corrosive to metals. H318 Causes serious eye damage.
Precautionary statement(s)	P234 Keep only in original packaging. P280 Wear eye protection/ face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P390 Absorb spillage to prevent material damage.
Supplemental Hazard Statements	None
Signal Word	Danger
Hazard statement(s)	H318 Causes serious eye damage.

Precautionary statement(s)	P280 Wear eye protection/ face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements	None
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.

4. First Aid Measures

General Advice	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air.
In case of skin contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
In case of eye contact	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
If swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
Most important symptoms and effects, both acute and delayed	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

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 Aluminum oxide Not combustible. Ambient fire may liberate hazardous vapours.
Advice for firefighters	In the event of fire, wear self-contained breathing apparatus.
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.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Environmental precautions	Do not let product enter drains.
Methods and material for containment and cleaning up	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

Precautions for safe handling	For precautions see section 2.2.
Storage conditions	No metal containers. Tightly closed. Dry. hygroscopic Store under inert gas.
Storage class	Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls and personal protection

Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles
Body Protection	Protective clothing
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 P2 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.
Control of environmental exposure	Do not let product enter drains.

9. Physical and chemical properties

Physical state	Powder
Color	White
Odor	Odorless
Melting point/freezing point	Melting point/range: 770 °C - dec.
Initial boiling point and boiling range	112 - 116 °C
Flammability (solid, gas)	The product is not flammable. - Flammability (solids)
Upper/lower flammability or explosive limits	No data available
Flash point	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Water solubility	ca.0,00001 g/l at 21,5 °C - insoluble
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Vapor pressure	No data available
Density	2,71 g/mL at 25 °C - lit.
Relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available
Explosive properties	No data available
Oxidizing properties	None
Other safety information	No data available

10. Stability and reactivity

Reactivity	No data available
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions	No data available
Conditions to avoid	Air Exposure to moisture. No information available
Incompatible materials	No data available
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

Acute toxicity	LD50 Oral - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 401) Inhalation: No data available LD50 Dermal - Rabbit - male and female - > 5.000 mg/kg (OECD Test Guideline 402)
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)
Serious eye damage/eye irritation	Eyes - Rabbit Result: Irreversible effects on the eye (OECD Test Guideline 405)
Respiratory or skin sensitization	Local lymph node assay (LLNA) - Mouse Result: negative (OECD Test Guideline 429)
Germ cell mutagenicity	Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative 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: Micronucleus test Test system: Human lymphocytes Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 487 Result: negative Test Type: Micronucleus test Species: Rat Application Route: Oral Method: OECD Test Guideline 474 Result: negative Remarks: (in analogy to similar products) The value is given in analogy to the following substances: aluminium hydroxide Species: Rat Application Route: Oral Remarks: Cytogenetic analysis
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional Information Endocrine disrupting properties	

12. Ecological information

Toxicity	
Toxicity to fish	Semi-static test LC50 - Danio rerio (zebra fish) - > 87,5 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - > 200 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	Static test ErC50 - Pseudokirchneriella subcapitata (microalgae) - 0,24 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	Static test EC50 - activated sludge - > 200 mg/l - 3 h (OECD Test Guideline 209)
Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances.
Bioaccumulative potential	No data available
Mobility in soil	No data 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 Product	
Assessment	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	No data available

13. Disposal considerations

Waste Treatment Methods	No data available

14. Transport information

UN number	ADR/RID: 3260 IMDG: 3260 IATA: 3260
UN proper shipping name	ADR/RID: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (aluminium sulfate) IMDG: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (aluminium sulfate) IATA: Corrosive solid, acidic, inorganic, n.o.s. (aluminium sulfate)
Transport hazard class(es)	ADR/RID: 8 IMDG: 8 IATA: 8
Packaging group	ADR/RID: III IMDG: III IATA: III
Environmental hazards	ADR/RID: No IMDG Marine pollutant: No IATA: No
Special precautions for user	
Tunnel restriction code	(E)
Further information	No data available

15. Regulatory information

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.
Other regulations	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 merchant ability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own nvestigations 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, how so ever arising, even if Rx Marine International has been advised of the possibility of such damages.