

1. Product and Company Identification

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Product Name Alpha Olefin Sulfonates AOS

Part Number RXSOL-67-1980-250

Company Details:....

RX MARINE INTERNATIONAL
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2. Composition / Information on ingredients

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Component	CAS NO.	Percentage, wt, %
Alpha-Olefin Sulfonate	68439-57-6 38	90~94
Water	7732-18-5	?2
Alpha-Olefin	1120-36-1	?5.0
Sodium sulfate	7757-82-6	?6.0
Sodium chloride	7647-14-5	?5.0

3. Hazards Identification

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Classification of the substance or mixture

Physical and Chemical Hazards

Not classified.

Eye contact

May cause significant eye irritation.

Skin contact

May cause significant skin irritation especially If exposure is prolonged and/or repeated.

Inhalation

Inhalation of vapors or mists of the product may be irritating to the respiratory system.

Ingestion

Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.

Label elements

Signal Word

Warning

Hazard Statements

Harmful if swallowed

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation

Precautionary Statements

Avoid breathing dust

Wash exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear eye protection, protective gloves.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of soap and water.

Call a POISON CENTER or doctor/physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container to comply with local, state and federal regulations.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Supplementary Precautionary Statements

4. First Aid Measures

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Description of first aid measures

First-aid measures general

Never give anything by mouth to an unconscious person.

First-aid measures after inhalation

If you feel unwell, seek medical advice (show the label where possible)

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact

Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion

If eye irritation persists: Get medical advice/attention.

Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Potential Adverse human health effects and symptoms

Based on available data, the classification criteria are not met. Harmful if swallowed.

Symptoms/effects after inhalation

May cause respiratory irritation

Symptoms/effects after skin contact

Causes skin irritation

Symptoms/effects after eye contact

Causes serious eye irritation.

Symptoms/effects after ingestion

Swallowing a small quantity of this material will result in serious health hazard

Indication of any immediate medical attention and special treatment needed Treat Symptomatically.

5. Fire-fighting Measures

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Extinguishing media

Suitable extinguishing media

Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media

Do not use a heavy water stream.

Special hazards arising from the substance or mixture

Fumes containing carbon dioxide, carbon monoxide, Sulphur dioxide may be formed in large fires.

Advice for firefighters

Special Fire Fighting Procedures

Containers close to fire should be removed immediately or cooled with water.

Protective equipment for fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures

Protective equipment

Gloves. Safety glasses. Equip cleanup crew with proper protection.

Emergency procedures

Evacuate unnecessary personnel. Ventilate area.

Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and materials for containment and cleaning up

Avoid generation and spreading of dust. Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like.

Reference to other sections

Flush with plenty of water to clean spillage area. Do not let washing down water contaminate ponds or waterways

For waste disposal, see section 13.

7. Handling and Storage

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Precautions for safe handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing dust. Use only outdoors or in a wellventilated area.

Hygiene measures

Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Wash exposed skin thoroughly after handling.

Storage conditions

Keep container tightly closed.

Incompatible products

Strong oxidizers.

Incompatible materials

Sources of ignition. Generation of airborne dust.

Storage class

Chemical storage

8. Exposure controls and personal protection

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Exposure controls

Process conditions

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based

on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

Provide adequate general and local exhaust ventilation.

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists. Wear mask supplied with: Dust filter P2 (for fine dust).

For prolonged or repeated skin contact use suitable protective gloves. Butyl rubber. Polyvinyl chloride (PVC).

Wear approved safety goggles

Wear appropriate clothing to prevent any possibility of skin contact. Provide eyewash station.

Engineering measures
Respiratory equipment

Hand protection

Eye protection

Other Protection

9. Physical and chemical properties

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Water Solubility	Highly soluble
Specific Gravity	1.05
pH Value	7-9
Odor	Slight characteristic odor
Appearance	Light yellow ceamy powder
Whiteness(WG)	?80

10. Stability and reactivity

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Reactivity	Strong oxidizing agents.
Chemical stability	Stable under normal temperature conditions and recommended use.
Possibility of hazardous reactions	Not known.
Conditions to avoid	Extremely high or low temperatures.
Incompatible materials	
Materials To Avoid	Strong oxidizing agents
Hazardous decomposition products	Upon decomposition, this product may yield sulfur dioxide and oxides of sulfur

11. Toxicological information

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Information on toxicological effects

Acute toxicity (Oral)	Harmful if swallowed.
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
LD50 oral rat	?2000 mg/kg
ATE US (oral)	?2000 mg/kg body weight
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified

12. Ecological information

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Toxicity	LC50 fish 1? 500 mg/l
Persistence and degradability	This product is highly degradable.
Bio accumulative potential	Bio accumulative potential: No data available on bioaccumulation.
Mobility in soil	Mobility: The product is soluble in water.
Results of PBT and vPvB assessment	This product does not contain any PBT or vPvB substances.
Other adverse effects	Avoid release to the environment.

13. Disposal considerations

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Waste disposal recommendations	Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	Avoid release to the environment.

14. Transport information

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UN number	Not applicable.
UN proper shipping name	Not applicable.
Transport hazard class(es)	Not applicable.
Packaging group	Not applicable.
Environmental hazards	
Environmentally Hazardous Substance/Marine Pollutant	No.
Precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

15. Regulatory information

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The following laws, regulations, rules and standards have made corresponding provisions on the management of the chemical	Workplace Safety Chemicals Regulations Convention on the Safe Use of Chemicals in the Workplace
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16. Other information

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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 we assume 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.
Advice on safe handling	Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.
Advice on protection against fire and explosion	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.
Hygiene measures	Change contaminated clothing. Wash hands after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Storage stability

Recommended storage temperature

Storage class

2 - 8 °C

Storage class (TRGS 510): 3: Flammable liquids

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

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Control parameters

Ingredients with workplace control parameters

Exposure controls

Personal protective equipment

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

Skin protection

Required

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Required when vapours/aerosols 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 ABEK

The entrepreneur 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. Risk of explosion.

9. Physical and chemical properties

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Physical state

Liquid

Colour

No data available

Odor

No data available

Melting point/freezing point

Melting point/freezing point: < -70 °C at 1.013,25 hPa

Initial boiling point and boiling range

130,5 - 134,5 °C at 1.013 hPa

Flammability (solid, gas)

Flammable aerosol.

Upper/lower flammability or explosive limits

No data available

Flash point

38,5 °C

Autoignition temperature

287 °C

Decomposition temperature

at 101,3 h Pa

No data available

pH

No data available

Viscosity	Viscosity, kinematic: 2,469 mm ² /s at 20 °C
	Viscosity, dynamic: 2,21 mPa.s at 20 °C
Water solubility	No data available
Partition coefficient: n-octanol/water	log Pow: < 1 at 20 °C
Vapor pressure	10 - 14 hPa at 34 - 56 °C
Density	0,898 g/cm ³ at 20 °C
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

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Reactivity	Vapor/air-mixtures are explosive at intense warming.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions	No data available
Conditions to avoid	Heating.
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

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Information on toxicological effects

Acute toxicity	LD50 Oral - Rat - male and female - 1.792 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Rat - male and female - 4 h - > 9,59 mg/l (OECD Test Guideline 403) LD50 Dermal - Rat - male and female - > 2.000 mg/kg (Directive 67/548/EEC, Annex V, B.3.)
Skin corrosion/irritation	Skin - Rabbit Result: Causes burns. Remarks: (ECHA)
sensitization	Not available
mutagenicity	Not available
Carcinogenicity	Not available
Reproductive toxicity	Not available
Teratogenicity	Not available
Specific target organ toxicity (single exposure)	Not available.
Specific target organ toxicity (repeated exposure)	Not available.
Aspiration hazard	Not available.
Information on the likely routes of exposure	Not available.

12. Ecological information

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Persistence and degradability	No data available
Toxicity to fish	Static test LC50 - Oncorhynchus mykiss (rainbow trout) - 75 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - 42,81 mg/l - 48 h (OECD Test Guideline 202) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: maleic acid
Toxicity	Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 1.520 mg/l - 96 h
Toxicity to bacteria	EC10 - Bacteria - 14 mg/l - 72 h Remarks: (Lit.) EC5 - E.coli - 15.000 mg/l Remarks: (Lit.) (maximum permissible toxic concentration)
Toxicity to algae	Static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 74,35 mg/l - 72 h (OECD Test Guideline 201) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: maleic acid
Products Biodegradation	The methods for determining the biological degradability are not applicable to inorganic substances.
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	No data available
Other adverse effects	No data available .

13. Disposal considerations

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Product	Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.
Contaminated packaging	Dispose of as unused product.
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

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UN number	ADR/RID:2404 IMDG:2404 IATA: 2404
UN proper shipping name	ADR/RID:PROPIONITRILE IMDG:PROPIONITRILE IATA:PROPIONITRILE
Transport hazard class(es)	ADR/RID: 3 (6.1) IMDG: 3 (6.1) IATA:3 (6.1)
Packaging group	ADR/RID: II IMDG: II IATA:II
Environmental hazards	ADR/RID: No IMDG: No IATA: No
Special precautions for user	No data available
Further information	Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

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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	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.

For this product a chemical safety assessment was not carried out

Chemical Safety Assessment

16. Other information

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Other Information

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