Material Safety Data Sheet

MANGANESE SULPHATE 32% (RXSOL-60-6604-909)

1. Product and Company Identifaction

Product Name	RXSOL-60-6604-909
Product Type	MANGANESE (II) SULPHATE PURIFIED (MONOHYDRATE) (Manganous Sulphate)
Revised date	

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / informationon ingredients

Substance / Preparation : Manganese Sulphate Monohydrate
CAS No :10034-96-5 Substance.
Contains no other components or impurities which will influence the classification of the product.

3. Hazards Identification

3.1. Classification of the substance or mixture
Classification EC 67/548 or EC 1999/45
Classification : Xn; R 48-20/22
N; R51-53
Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)
Health hazards : Specific Target Organ Toxicity - Repeated exposure - Category 1
- Danger (CLP : STOT RE 1) H372
Acute toxicity, Inhalation - Category 4 - Warning (CLP : Acute Tox. 4) H332
Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302
Environmental hazards : Hazardous to the aquatic environment - Chronic hazard
- Category 2 (CLP : Aquatic Chronic 2) H411
3.2. Label elements
Labelling EC 67/548 or EC 1999/45
Symbol(s) : Xn : Harmful
N : Dangerous for the environment R Phrase(s) : R20/22 : Harmful by inhalation and if swallowed.
R48 : Danger of serious damage to health by prolonged exposure.
R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the
aquatic environment
S Phrase(s) : S22 : Do not breathe dust
. S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.
Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms
Signal words : Danger
Hazard statements : H302 : Harmful if swallowed.
H332 : Harmful if inhaled.
H372 : Causes damage to organs through prolonged or repeated exposure.
H411 : Toxic to aquatic life with long lasting effects.
Precautionary statements
• Prevention : P271: Use only outdoors or in a well-ventilated area.
P260: Do not breathe dust, fume, gas, mist, vapours, spray.
P273: Avoid release to the environment.
P264: Wash thoroughly after handling
. P270: Do not eat, drink or smoke when using this product.
• Response : P301+P312: IF SWALLOWED : Call a POISON CENTER or doctor if you

feel unwell.
P391: Collect spillage.
P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.
P314: Get medical advice if you feel unwell
. • Disposal considerations : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
3.3. Other hazards
Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

4. First Aid Measures

4.1. Description of first aid measures
Inhalation : Assure fresh air breathing. Allow the victim to rest. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
Skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Eye contact : Rinse immediately with plenty of water . Obtain medical attention if pain, blinking or redness persist.
Ingestion : Obtain emergency medical attention. Do NOT induce vomiting. Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.
4.2. Most important symptoms and effects, both acute and delayed
Symptoms relating to use : Causes damage to organs through prolonged or repeated exposure. Danger of serious damage to health by prolonged exposure through inhalation. Swallowing a small quantity of this material will result in serious health hazard.
4.3. Indication of any immediate medical attention and special treatment needed
General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting Measures

5.1. Extinguishing media
Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.
Surrounding fires : Use water spray or fog for cooling exposed containers.
5.2. Special hazards arising from the substance or mixture Hazardous combustion products : Under fire conditions, hazardous fumes will be present.
5.3. Advice for fire-fighters
Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.
Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
For emergency responders : Equip cleanup crew with proper protection.
Ventilate area.
For non-emergency personnel : Evacuate unnecessary personnel.
6.2. Environmental precautions
Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.
6.3. Methods and material for containment and cleaning up
Clean up methods : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.
6.4. Reference to other sections
See section 8. Exposure controls/personal protection

7. Handling and Storage

7.1. Precautions for safe handling
Handling : Do not breathe dust, fume, gas, mist, vapours, spray. Use only outdoors or in a well ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.
Technical protective measures : Provide good ventilation in process area to prevent

formation of vapour.
7.2. Conditions for safe storage, including any incompatibilities
Storage : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.
Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight.
7.3. Specific end use(s)
Specific end use(s) : None.

8. Exposure controls and personal protection

8.1. Exposure controls
Personal protection : Avoid all unnecessary exposure
. • Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
• Hand protection : Wear protective gloves.
• Eye protection : Chemical goggles or safety glasses.
• Others : When using, do not eat, drink or smoke.
8.2. Control parameters
Occupational Exposure Limits : No data available

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state at 20 °C : Solid.
Odour threshold : No data available.
pH value : No data available.
Melting point [°C] : 700 °C
Decomposition point [°C] : N/A
Critical temperature [°C] : N/A
Auto-ignition temperature [°C] : N/A
Flammability (solid, gas) : N/A
Flash point [°C] : N/A
Boiling point [°C] : N/A
Initial boiling point [°C] : N/A
Final boiling point [°C] : N/A
Evaporation rate : N/A
Vapour pressure [20°C] : N/A
Vapour pressure mm/Hg : N/A
Vapour density : N/A
Density [g/cm3] : 2,95
Relative density, gas (air=1) : N/A
Relative density, liquid (water=1) : N/A
Solubility in water [% weight] : Soluble in water
Solubility in water : N/A
Log Pow octanol / water at 20°C : No data available.
Solubility : 3 - 3.5
Viscosity at 40°C [mm2/s] : N/A
9.2. Other information Explosive properties : N/A
Explosion limits - upper [%] : N/A
Explosion limits - lower [%] : N/A
Oxidising properties : No data available.

10. Stability and reactivity

10.1. Reactivity
Reactivity : Not established.
10.2. Chemical stability
Chemical stability : Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions
Hazardous reactions : Not established.
10.4. Conditions to avoid
Conditions to avoid : Direct sunlight. Extremely high or low temperatures.
10.5. Incompatible materials
Materials to avoid : Strong acids. Strong bases.
10.6. Hazardous decomposition products
Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.

11. Toxicological information

11.1. Information on toxicological effects
Acute toxicity
• Inhalation : Based on available data, the classification criteria are not met.
• Dermal : Based on available data, the classification criteria are not met.
• Ingestion : Based on available data, the classification criteria are not met.
Corrosion : Based on available data, the classification criteria are not met.
Irritation : Based on available data, the classification criteria are not met.
Sensitization : Based on available data, the classification criteria are not met.
Mutagenicity : Based on available data, the classification criteria are not met.
Carcinogenicity : Based on available data, the classification criteria are not met.
Toxic for reproduction : Based on available data, the classification criteria are not met.
STOT-single exposure : Based on available data, the classification criteria are not met.
STOT-repeated exposure : Based on available data, the classification criteria are not met.
Aspiration hazard : Based on available data, the classification criteria are not met.

12. Ecological information

12.1. Toxicity
Toxicity information : Not established.
12.2. Persistence - degradability
Persistence - degradability : Biodegradable.
12.3. Bioaccumulative potential
Bioaccumulative potential : Not established.
12.4. Mobility in soil
Mobility in soil : Not established.
12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.
12.6. Other adverse effects
Environmental precautions : Avoid release to the environment.

13. Disposal considerations

13.1. Waste treatment methods
General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

14. Transport information

14.1. Land transport (ADR-RID)
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S.
UN N° : 3077
H.I. nr : 90
ADR - Class : 9
Labelling - Transport : 9 : Miscellaneous dangerous substances and articles
. ADR - Classification code : M7
ADR - Group : III
ADR - Packing instructions : P002 R001 LP002
ADR - Limited Quantity : 5 KG
ADR - Tunnel code : E : Passage forbidden through tunnels of category E.
14.2. Sea transport (IMDG) [English only]
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
UN N° : 3077
IMO-IMDG - Class or
ivision : 9 : Miscellaneous dangerous substances and articles.
IMO-IMDG - Packing group : III
IMO- IMDG - Packing instructions : P002 LP02
IMO-IMDG - Limited quantities : 5 kg
IMO-IMDG - Marine pollution : Yes
EMS-Nr : F-A S-F
14.3. Air transport (ICAO-IATA) [English only]
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
UN N° : 3077
IATA - Class or division : 9 : Miscellaneous dangerous substances and articles.

IATA - Packing group : III
IATA - Passenger and Cargo Aircraft : ALLOWED
- Passenger and Cargo - Packing : 956
instruction
Passenger and Cargo - Maximum : 400 kg
Quantity/Packing
IATA - Cargo only : ALLOWED
- Cargo only - Packing instruction : 956
- Cargo only - Maximum Quantity/ : 400 kg
Packing IATA - Limited Quantites : 30 kg
G ERG-Nr : 9L

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Safety, health and environmental : Ensure all national/local regulations are observed.
regulations/legislation specific for the substance or mixture
REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.
REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.
15.2. Chemical Safety Assessment
Chemical Safety Assessment : It has not been carried out.

16. Other information

Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic.
vPvB: very persistent and very bioaccumulative
Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
Further information : None.
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