MANGANESE SULFATE MONOHYDATE

SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

Product Name: Manganese Sulfate Monohydate
Product Code: CM 23,530
CAS#: 10034-96-5
Synonym: Not available
Chemical Name: Not available
Chemical Formula: $MnSO_4.H_2O$
Formula weight : 169.02

SECTION 2: COMPOSITION ANDINFORMATION ON INGREDIENTS

Composition:
Name: Manganese Sulfate Monohydate
Toxicological Data on Ingredients: Eye Dam. 1; STOT RE 2;
Aquatic Chronic 2; H318, H373, H411

SECTION 3: HAZARDSIDENTIFICATION

Classification of the substance or mixture
STOT RE 2; Aquatic
Potential Acute Health Effects:
Acute Tox. 3; Eye Dam. 1;
Potential Chronic Health Effects
Chronic 2; H301, H318, H373, H411
Carcinogenic Effects: Not available.
Mutagenic Effects: Not available.
Teratogenic Effects: Not available.
Developmental Toxicity: Not Available

SECTION 4: FIRSTAID MEASURES

Description of first aid measures
General advice Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled If breathed in: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact Wash off with soap and plenty of water. Consult a physician.
In case of eye contact: Flush eyes with water as a precaution.
If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delay: No data available
Indication of any immediate medical attention and special treatment needed:No data available

SECTION 5: FIRE AND EXPLOSION DATA

Extinguishing media
Suitable extinguishing media :
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture
Sulfur oxides

Manganese/manganese oxides
Not combustible.
Ambient fire may liberate hazardous vapours.
Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
Environmental precautions Do not let product enter drains.
Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling
Work under hood. Do not inhale substance/mixture.
Conditions for safe storage, including any incompatibilities
Tightly closed. Dry.
Storage Class:
Storage class (TRGS 510): 13: Non Combustible Solids.
Specific end use(s) A part from the uses:
No other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls
Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment
Eye/face protection Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body Protection Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator.For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure Do not let product enter drains.

SECTION 9: PHYSICAL ANDCHEMICAL PROPERTIES

Appearance Form	:Solid
Colour	:Not available
Odour	:Pink
Odour Threshold	:Not available
pH	:Not available
Melting point/freezingpoint	:> 449°C
Initial boiling pointandboilingrange	:Not available
Flash point	:Not available

Evapouration rate	:Not available
Flammability (solid,gas)	:Not available
Upper/lower flammabilityorexplosivelimits	:Not available
Vapour pressure	:Not available
Vapour density	:Not available
Relative density	:2.95 g/cm3 at 20 °C
Water solubility	:762 g/l at 20 °C :Not available
Partition coefficient	:Not available
Auto-ignition temperature	

SECTION 10: STABILITY AND REACTIVITY DATA

Reactivity no data available
Chemical stability
The product is chemically stable under standard ambient conditions (room temperature).
Possibility of hazardous reactions
Not available
Conditions to avoid :
no data available
Incompatible materials
Metals, Light metals
Hazardous decomposition products Other decomposition products - In the event of fire

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute Toxicity:
LD50 Oral - Rat - male and female - 2.150 mg/kg
Remarks: (anhydrous substance)
Symptoms: After uptake of large quantities:, Nausea, Vomiting, Diarrhea, gastric pain,
Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.
LC50 Inhalation - Rat - male and female - 4 h - > 4,45 mg/l
Remarks: (anhydrous substance)
Symptoms: Possible damages:, mucosal irritations, tissue damage, Pneumonia
Serious eye damage/eye irritation no data available
Respiratory or skin sensitization no data available
Carcinogenicity no data available

SECTION 12: ECOLOGICAL INFORMATION

Toxicity:
Toxicity to algae static test NOEC - Desmodesmus subspicatus (green algae) - 1 mg/l - 72 h
static test ErC50 - Desmodesmus subspicatus (green algae) - 61mg/l - 72 h
Persistence and degradability:
no data available
Bioaccumulative potential :
no data available
Mobility in soil no data available
Results of PBT and vPvB assessment PBT/vPvB assessment not available
Other adverse affects no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods Product Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

UN number:
ADR/RID: 3077 IMDG: 3077 IATA: 3077
UN proper shipping name
ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Manganese Sulfate Monohydrate)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Manganese Sulfate Monohydrate)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Manganese Sulfate Monohydrate)
Transport hazard class(es):
ADR/RID: 9 IMDG: 9 IATA: 9
Packaging group:
ADR/RID: III IMDG: III IATA: III
Environmental hazards:
ADR/RID: Yes IMDG Marinepollutant: Yes IATA: Yes

SECTION 15: OTHER REGULATORY INFORMATION

Regulatory information This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements.
H318 Causes serious eye damage.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.
H411 Toxic to aquatic life with long lasting effects.
Special Considerations: Not available

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