SAFETY DATA SHEET

Version: v1 Revision Date: 2024-01-16 Print Date: 2024-01-23

SECTION 1:Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

| Product name | : Manganese(II) nitrate hydrate |
|----------------|---------------------------------|
| Product Number | : M472919 |
| Brand | : aladdin |
| CAS-No. | : 15710-66-4 |

1.2 Relevant identified uses of the substance or mixture and uses advised against

| Identified uses : Laboratory chemicals,Manufacture of substance | Identified uses | : Laboratory chemicals,Manufacture of substances |
|-----------------------------------------------------------------|-----------------|--------------------------------------------------|
|-----------------------------------------------------------------|-----------------|--------------------------------------------------|

1.3 Company

| Company | : ALADDIN SCIENTIFIC CORPORATION |
|----------------------|----------------------------------|
| Address | : 14078 Meridian Parkway, |
| Riverside, CA. 92518 | |
| Telephone | : +1 (833) 552-7181 |
| Fax | : no data available |
| | |

1.4 Emergency telephone number

| CHEMTREC®, Inside the USA | : 1-800-424-9300 |
|----------------------------|------------------|
| CHEMTREC®, Outside the USA | : |

SECTION 2: Hazards identification

Pictogram

Signal word

H272

H315

Hazard statement(s)

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Oxidizing solids (Category 3), H272 Skin corrosion/irritation (Category 2), H315 Serious eye damage/eye irritation (Category 2A), H319 Specific target organ toxicity - single exposure (Category 3), respiratory tract irritation,H335

2.2 GHS Label elements, including precautionary statements

| Warning | |
|------------------------------|--|
| May intensify fire; oxidizer | |
| Causes skin irritation | |

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| H319 | Causes serious eye irritation |
|----------------------------|--------------------------------------------------------------------------------|
| H335 | May cause respiratory irritation |
| Precautionary statement(s) | |
| P210 | Keep away from heat, hot surface, sparks, open flames and other ignition |
| | sources No smoking. |
| P220 | Keep away from clothing and other combustible materials. |
| P221 | Take any precaution to avoid mixing with combustibles/ |
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray. |
| P264 | Wash hands [and] thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+P352 | IF ON SKIN: wash with plenty of water. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact |
| | lenses if present and easy to do - continue rinsing. |
| P332+P313 | IF SKIN irritation occurs: Get medical advice/attention. |
| P337+P313 | IF eye irritation persists: Get medical advice/attention. |
| P370+P380 | In case of fire: Evacuate area. |
| P405 | Store locked up. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P501 | Dispose of contents/container to an approved waste disposal plant. |
| P304+P340+P312 | IF INHALED: Remove person to fresh air and keep comfortable for breathing.Call |
| | a POISON CENTER or doctor. if you feel unwell. |

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

| Synonyms | : no data available |
|------------------|---------------------|
| Formula | : Mn(NO3)2·xH2O |
| Molecular weight | : 178.95(anhy) |
| CAS No. | : 15710-66-4 |
| EC-NO. | : 233-828-8 |
| | |

Classification

Component

Concentration

Manganese(II) nitrate hydrate

Oxidizing solids Category 3; Skin corrosion/irritation Category 2; Serious 98% eye damage/eye irritation Category 2A; Specific target organ toxicity - single exposure Category 3; H272, H315, H319, H335

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SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician.Show this safety data sheet to the doctor in attendance.Move out of dangerous area. 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

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 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

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Unsuitable extinguishing media no data available

5.2 Special hazards arising from the substance or mixture

Manganese/manganese oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions



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Do not let product enter drains

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel.Contain spillage, and then collect with an electrically protected vacuum cleaner or by wetbrushing and place in container for disposal according to local regulations (see section 13).Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes.Avoid formation of dust and aerosols.Further processing of solid materials may result in the formation of combustible dusts.The potential for combustible dust formation should be taken into consideration before additional processing occurs.Provide appropriate exhaust ventilation at places where dust is formed.Keep away from sources of ignition - No smoking.Keep away from heat and sources of ignition.For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.Recommended storage temperature 2 - 8 °C Hygroscopic.Handle and store under inert gas.Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 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 is 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.

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Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Control of environmental exposure

no data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| a) Appearance | no data available |
|--------------------------------------------|---------------------|
| b) Odour | no data available |
| c) Odour Threshold | no data available |
| d) pH | no data available |
| e) Melting point/freezing point | ca26° |
| f) Initial boiling point and boiling range | no data available |
| g) Flash point | no data available |
| h) Evaporation rate | no data available |
| i) Flammability (solid, gas) | no data available |
| j) Upper/lower flammability or | |
| explosive limits | no data available |
| k) Vapour pressure | no data available |
| l) Vapour density | no data available |
| m) Relative density | no data available |
| n) Water solubility | no data available |
| o) Partition coefficient: n-octanol/wate | r no data available |
| p) Auto-ignition temperature | no data available |
| q) Decomposition temperature | no data available |
| r) Viscosity | no data available |
| s) Explosive properties N | no data available |
| t) Oxidizing properties N | no data available |
| , 31 1 55 | |

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

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10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

Avoid moisture.

10.4 Conditions to avoid

Strong reducing agents, Strong acids

10.5 Incompatible materials

Hazardous decomposition products formed under fire conditions.- Manganese/manganese oxides Other decomposition products - No data available In the event of fire: see section 5

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Skin corrosion/irritation |
|-----------------------------------------------------------------------------------------------------------------|
| no data available |
| Serious eye damage/eye irritation |
| no data available |
| Respiratory or skin sensitisation |
| no data available |
| Germ cell mutagenicity |
| IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, |
| possible or confirmed human carcinogen by IARC.NTP: No component of this product present at levels greater than |
| or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.OSHA: No component of this product |
| present at levels greater than or equal to 0.1% is on OSHA is list of regulated carcinogens. |
| Carcinogenicity |
| no data available |
| Reproductive toxicity |
| Inhalation - May cause respiratory irritation. |
| Specific target organ toxicity - single exposure |
| no data available |
| Specific target organ toxicity - repeated exposure |
| no data available |
| Aspiration hazard |
| no data available |
| |

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Additional Information

SECTION 12: Ecological information

- 12.1 Toxicity
- 12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.Offer surplus and non-recyclable solutions to a licensed disposal company.Contact a licensed professional waste disposal service to dispose of this material.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

| DOT (US) | | |
|-------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------|
| UN number: 2724 | Packing group: III | Class: 5.1 |
| Proper shipping name: Manganese nitrate Environmental Hazards: No | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: no data available |
| IMDG UN number: 2724 | Packing group: III | EMS-No: no data available |

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| Proper shipping name: Manganese nitrate | | | |
|-----------------------------------------|--------------------|------------|--|
| ΙΑΤΑ | | | |
| UN number: 2724 | Packing group: III | Class: 5.1 | |
| Proper shipping name: Manganese nitrate | | | |

SECTION 15: Regulatory information

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

SECTION 16: Other information

| Prepared By | Regulatory Affairs ALADDIN SCIENTIFIC CORPORATION Email: QualityAssurance@aladdinsci.com |
|------------------|------------------------------------------------------------------------------------------------|
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