

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

· **Product identifier**

· **Trade name:** MANGANESE NITRATE SOLUTION

· **Registration number**

Not available. The transition period under the REACH Regulation (Article 23) is not over.

· **Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

· **Application of the substance / the preparation** Catalysis, electronics, fertilizers.

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

JINWANG EUROPE

ZI Jean Jaurès

218, Avenue Marie Curie

07800 La Voulte Sur Rhone

France

· **Further information obtainable from:** emilie.bertin@jinwang.eu

· **Emergency telephone number:**

England and Wales: +44 845 4647

Germany : +49 30 192 40

Austria : +43 1 406 43 43

Belgium : +32 70 245 245

Danemark : +45 82 12 12 12

Spain : +34 156 20420

France : +33 140 054 848

Italy : +39 02 6610 1029

Norway : +47 22 59 13 00

Netherlands : +31 30 274 88 88

Sweden : +46 8 33 12 31

2 Hazards identification

· **Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



C; Corrosive

R35: Causes severe burns.



Xn; Harmful

R20/22: Harmful by inhalation and if swallowed.



Xi; Irritant

R37: Irritating to respiratory system.

(Contd. on page 2)

Trade name: MANGANESE NITRATE SOLUTION

(Contd. of page 1)

- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05 GHS07

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
Mangan(II)-nitrat-Hexahydrat
- **Hazard statements**
H302+H332 *Harmful if swallowed or if inhaled.*
H314 *Causes severe skin burns and eye damage.*
H335 *May cause respiratory irritation.*
- **Precautionary statements**
P260 *Do not breathe dust/fume/gas/mist/vapours/spray.*
P303+P361+P353 *IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*
P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
P310 *Immediately call a POISON CENTER or doctor/physician.*
P405 *Store locked up.*
P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** *Mixture of substances listed below with nonhazardous additions.*

· **Dangerous components:**

CAS: 17141-63-8 EINECS: 233-828-8	<i>Mangan(II)-nitrat-Hexahydrat</i> ☒ Xn R20/22; ☒ Xi R36/37/38; ☒ O R8 ☒ Ox. Sol. 2, H272; ☒ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	48-50%
CAS: 7697-37-2 EINECS: 231-714-2	<i>nitric acid</i> ☒ C R35; ☒ O R8 ☒ Ox. Liq. 3, H272; ☒ Skin Corr. 1A, H314	1-5%
CAS: 7732-18-5 EINECS: 231-791-2	<i>water, distilled, conductivity or of similar purity</i>	45-51%

(Contd. on page 3)

Trade name: MANGANESE NITRATE SOLUTION

(Contd. of page 2)

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Do not induce vomiting; call for medical help immediately.
Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **Information for doctor:**
 - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
 - **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** Nitrogen oxides (NO_x)
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

GB

(Contd. on page 4)

Trade name: MANGANESE NITRATE SOLUTION

(Contd. of page 3)

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Handle with care. Avoid jolting, friction and impact.
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** *No special measures required.*
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
No special requirements.
- **Information about storage in one common storage facility:** *Store away from flammable substances.*
- **Further information about storage conditions:** *Keep container tightly sealed.*
- **Recommended storage temperature:** *Storage temperature : Room temperature*
- **Specific end use(s)** *No further relevant information available.*

* 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** *No further data; see item 7.*
- **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

7697-37-2 nitric acid

WEL Short-term value: 2.6 mg/m³, 1 ppm

- **Additional information:** *The lists valid during the making were used as basis.*
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.



Suitable respiratory protective device recommended.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several

(Contd. on page 5)

Trade name: MANGANESE NITRATE SOLUTION

(Contd. of page 4)

substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Pink

· **Odour:** Acidic

· **pH-value at 20 °C:** < 2

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 100 °C

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:**

Decomposition temperature: Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Not determined.

· **Vapour pressure at 20 °C:** 23 hPa

· **Density at 20 °C:** 1.5-1.63 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:**

Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

Dynamic: Not determined.

Kinematic: Not determined.

· **Solvent content:**

Organic solvents: 0.0 %

Water: 45.0 %

VOC (EC) 0.00 %

Solids content: 52.0 %

(Contd. on page 6)

Trade name: MANGANESE NITRATE SOLUTION

(Contd. of page 5)

· **Other information** *No further relevant information available.*

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *No dangerous reactions known.*
- **Conditions to avoid** *Heat*
- **Incompatible materials:**
 - Oxidizing materials*
 - Reducing agents*
 - Combustible substances*
- **Hazardous decomposition products:** *Nitrogen oxides (NO_x)*

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
 - **on the skin:** *Strong caustic effect on skin and mucous membranes.*
 - **on the eye:** *Strong caustic effect.*
- **Sensitization:** *No sensitizing effects known.*
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

 - Harmful*
 - Corrosive*
 - Irritant*

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **Persistence and degradability** *No further relevant information available.*
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** *No further relevant information available.*
- **Mobility in soil** *No further relevant information available.*
- **Additional ecological information:**
- **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralized.
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **Other adverse effects** *No further relevant information available.*

GB

(Contd. on page 7)


Trade name: MANGANESE NITRATE SOLUTION

(Contd. of page 6)

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system. Discharge into drains or the environment prohibited. Waste disposal must be in accordance with the Regulations and Orders Prefectural into force. Although empty contaminated packaging, deliver to an approved disposal.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · ADR, IMDG, IATA 	<p style="text-align: right;">UN3264</p>
<ul style="list-style-type: none"> · UN proper shipping name · ADR · IMDG, IATA 	<p style="text-align: right;">3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID) CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)</p>
<ul style="list-style-type: none"> · Transport hazard class(es) · ADR, IMDG, IATA 	<div style="text-align: center;">  </div> <p style="text-align: right;">8 Corrosive substances. 8</p>
<ul style="list-style-type: none"> · Packing group · ADR, IMDG, IATA 	<p style="text-align: right;">II</p>
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: 	<p style="text-align: right;">No</p>
<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: · Segregation groups 	<p style="text-align: right;">Warning: Corrosive substances. 80 F-A,S-B Acids</p>
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	<p style="text-align: right;">Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Transport category · Tunnel restriction code 	<p style="text-align: right;">1L 2 E</p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	<p style="text-align: right;">UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, II</p>

GB

(Contd. on page 8)

Trade name: MANGANESE NITRATE SOLUTION

(Contd. of page 7)

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- H272 May intensify fire; oxidiser.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- R20/22 Harmful by inhalation and if swallowed.
- R35 Causes severe burns.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R8 Contact with combustible material may cause fire.

· **Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- VOC: Volatile Organic Compounds (USA, EU)

- *** Data compared to the previous version altered.**