

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 2112820 Manganese Standard Solution Ampule, 25 mg/l as Mn

Revision date: 26.06.2017

Product code: 2112820

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

##### 1.1. Product identifier

2112820 Manganese Standard Solution Ampule, 25 mg/l as Mn

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

###### Use of the substance/mixture

Water analysis

##### 1.3. Details of the supplier of the safety data sheet

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

##### 1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Regulation (EC) No. 1272/2008

Hazard categories:

Serious eye damage/eye irritation: Eye Dam. 1

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Causes serious eye damage.

May cause damage to organs through prolonged or repeated exposure.

The product does not need to be labelled in accordance with EC directives or respective national laws.

##### 2.2. Label elements

###### Regulation (EC) No. 1272/2008

###### Hazard components for labelling

Nitric acid ... %

Signal word:

Danger

Pictograms:



###### Hazard statements

H318

Causes serious eye damage.

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H373 May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 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/doctor.  
 P314 Get medical advice/attention if you feel unwell.  
 P501 Dispose of contents/container to Disposal.

**Additional advice on labelling**

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

**2.3. Other hazards**

no data available

**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**
**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7732-18-5	Water			> 95 %
	231-791-2			
7697-37-2	Nitric acid ... %			1-2 %
	231-714-2	007-004-00-1		
	Ox. Liq. 2, Skin Corr. 1A; H272 H314 EUH071			
10377-66-9	Manganese(II) nitrate			1-2 %
	233-828-8			
	Ox. Sol. 2, Skin Corr. 1, STOT RE 2, Aquatic Chronic 3; H272 H314 H373 H412			

Full text of H and EUH statements: see section 16.

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**General information**

Take off all contaminated clothing immediately.  
 Show this safety data sheet to the doctor in attendance.

**After inhalation**

Move to fresh air.

**After contact with skin**

Wash off immediately with plenty of water for at least 15 minutes.  
 If skin irritation persists, call a physician.

**After contact with eyes**

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

**After ingestion**

Do NOT induce vomiting. Drink 1 or 2 glasses of water.  
 Never give anything by mouth to an unconscious person.  
 Consult a physician.

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#### **4.2. Most important symptoms and effects, both acute and delayed**

Irritation and corrosion, Risk of serious damage to eyes.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
The product itself does not burn.

Water, Carbon dioxide (CO<sub>2</sub>), Alcohol-resistant foam Dry powder

##### **Unsuitable extinguishing media**

No Limit

#### **5.2. Special hazards arising from the substance or mixture**

The product itself does not burn.

Fire may liberate hazardous vapours.

#### **5.3. Advice for firefighters**

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

In the event of fire, wear self-contained breathing apparatus.

In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

Suppress (knock down) gases/vapours/mists with a water spray jet.

#### **Additional information**

Prevent fire extinguishing water from contaminating surface water or the ground water system.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.

Do not breathe vapours, mist or gas. Ensure adequate ventilation.

#### **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

#### **6.3. Methods and material for containment and cleaning up**

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13).

#### **6.4. Reference to other sections**

13. Disposal considerations

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Use only in well-ventilated areas.

Avoid contact with skin and eyes.

Do not breathe vapours/dust.

##### **Advice on protection against fire and explosion**

See also section 5

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**Further information on handling**

Observe label precautions.  
Avoid contact with skin, eyes and clothing.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed in a dry and well-ventilated place.

**Hints on joint storage**

None known.

**Further information on storage conditions**

no data available

**7.3. Specific end use(s)**

Reagent for analysis

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7697-37-2	Nitric acid	1	2.6		STEL (15 min)	WEL

**Additional advice on limit values**

None known.

**8.2. Exposure controls****Appropriate engineering controls**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

**Protective and hygiene measures**

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

Wash hands before breaks and at the end of workday.

**Eye/face protection**

Safety glasses with side-shields

**Hand protection**

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

In full contact: Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash

contact: Glove material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

**Skin protection**

Remove and wash contaminated clothing before re-use.

**Respiratory protection**

Provide adequate ventilation.

**Environmental exposure controls**

Should not be released into the environment.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: liquid  
Colour: colourless

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Odour: odourless

#### Test method

pH-Value (at 20 °C): 1.7

#### Changes in the physical state

Melting point: not applicable

Initial boiling point and boiling range: 100 °C

Sublimation point: not applicable

Softening point: not applicable

: no data available

Flash point: not applicable

Sustaining combustion: No data available

#### Flammability

Solid: not applicable

Gas: not applicable

#### Explosive properties

not applicable

Lower explosion limits: not applicable

Upper explosion limits: not applicable

Ignition temperature: no data available

#### Auto-ignition temperature

Solid: not applicable

Gas: no data available

Decomposition temperature: no data available

#### Oxidizing properties

no data available

Vapour pressure: no data available

Vapour pressure: no data available

Density (at 20 °C): 0,989 g/cm<sup>3</sup>

Bulk density: not applicable

Water solubility: no data available miscible

#### Solubility in other solvents

no data available

Partition coefficient: no data available

Viscosity / dynamic: no data available

Viscosity / kinematic: no data available

Flow time: no data available

Vapour density: no data available

Evaporation rate: no data available

Solvent separation test: no data available

Solvent content: no data available

#### 9.2. Other information

Solid content: not applicable

no data available

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#### SECTION 10: Stability and reactivity

##### 10.1. Reactivity

May be corrosive to metals.

##### 10.2. Chemical stability

The product is chemically stable.

##### 10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

##### 10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

##### 10.5. Incompatible materials

woven fabric, Organic materials, Metals None known.

##### 10.6. Hazardous decomposition products

No decomposition if used as directed.

#### SECTION 11: Toxicological information

##### 11.1. Information on toxicological effects

###### **Toxicokinetics, metabolism and distribution**

No toxicology information is available.

###### **Acute toxicity**

No data is available on the product itself.

###### **Irritation and corrosivity**

H318 - Causes serious eye damage.

Skin corrosion: Not applicable.

Test Method: Animal studies, rabbit skin

###### **Sensitising effects**

No known effect.

###### **Carcinogenic/mutagenic/toxic effects for reproduction**

Contains no ingredient listed as a carcinogen

###### **STOT-single exposure**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

###### **STOT-repeated exposure**

H373 - May cause damage to organs through prolonged or repeated exposure.

###### **Aspiration hazard**

No aspiration toxicity classification

###### **Specific effects in experiment on an animal**

No data is available on the product itself.

approx. solution (65 %) Nitric acid ... %:

LC50/inhalation/4h/rat = 625 ppm

Experience with human exposure LDL0 = 430 mg/kg

###### **Additional information on tests**

None known.

###### **Practical experience**

###### **Observations relevant to classification**

None known.

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#### Other observations

None known.

#### Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12: Ecological information

### 12.1. Toxicity

No data is available on the product itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7697-37-2	Nitric acid ... %					
	Acute fish toxicity	LC50	72 mg/l	96 h	Gambusia affinis	IUCLID

### 12.2. Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

### 12.3. Bioaccumulative potential

no data available

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
7697-37-2	Nitric acid ... %	-0,21

### 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 known effect.

#### Further information

No known effect.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

In accordance with local and national regulations.

#### List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### List of Wastes Code - contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### Contaminated packaging

Dispose of as unused product.

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The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

#### SECTION 14: Transport information

##### Land transport (ADR/RID)

###### Other applicable information (land transport)

Not subject to transport regulations.

##### Inland waterways transport (ADN)

###### Other applicable information (inland waterways transport)

Not tested

##### Marine transport (IMDG)

**14.2. UN proper shipping name:** Not subject to transport regulations.

##### Air transport (ICAO-TI/IATA-DGR)

**14.2. UN proper shipping name:** Not subject to transport regulations.

##### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

##### 14.6. Special precautions for user

no data available

##### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

##### Other applicable information

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit, Hazard Class: 9, UN Number 3316, Package group II, EMS Code: F-A, S-P

#### SECTION 15: Regulatory information

##### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

###### EU regulatory information

###### Additional information

The product does not need to be labelled in accordance with EC directives or respective national laws.

###### National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

##### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

#### SECTION 16: Other information

##### Changes

Revision: 26.06.2017

Safety datasheet sections which have been updated: 2, 10, 11

Revision: 27.01.2016

Safety datasheet sections which have been updated: 2 - 16

Revision: 06.10.2014

Safety datasheet sections which have been updated: 4 - 16

##### Relevant H and EUH statements (number and full text)

H272 May intensify fire; oxidiser.  
H314 Causes severe skin burns and eye damage.



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H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*