

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**14794-42 Magnesium Reference Standard Solution 1000 ± 10 mg/l**

Revision date: 29.10.2015

Product code: 1479442

Page 1 of 9

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

14794-42 Magnesium Reference Standard Solution 1000 ± 10 mg/l

**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:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

May be corrosive to metals.

Causes serious eye damage.

Causes skin irritation.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

Nitric acid 1-5 %

**Signal word:** Danger**Pictograms:**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 14794-42 Magnesium Reference Standard Solution 1000 ± 10 mg/l

Revision date: 29.10.2015

Product code: 1479442

Page 2 of 9

#### Hazard statements

- H290 May be corrosive to metals.  
H318 Causes serious eye damage.  
H315 Causes skin irritation.

#### Precautionary statements

- 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.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P362 Take off contaminated clothing.

#### 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	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
7732-18-5	Water			90-100 %
	231-791-2			
7697-37-2	Nitric acid ... %			1-5 %
	231-714-2	007-004-00-1		
	Ox. Liq. 2, Skin Corr. 1A; H272 H314 EUH071			

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.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 14794-42 Magnesium Reference Standard Solution 1000 ± 10 mg/l

Revision date: 29.10.2015

Product code: 1479442

Page 3 of 9

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

Acute dermal irritation/corrosion  
Acute eye irritation/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.

##### **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 the event of fire, wear self-contained breathing apparatus.  
In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

#### **Additional information**

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.

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

Dilute with plenty of water.  
Do not flush into surface water or sanitary sewer system.  
Should not be released into the environment.

#### **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**

Avoid contact with skin and eyes.  
Do not breathe vapours/dust.

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

See also section 5

##### **Further information on handling**

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.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**14794-42 Magnesium Reference Standard Solution 1000 ± 10 mg/l**

Revision date: 29.10.2015

Product code: 1479442

Page 4 of 9

**Hints on joint storage**

None known.

**Further information on storage conditions**

Keep locked up or in an area accessible only to qualified or authorised persons.

**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: &gt;480 min. In splash contact: Glove material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: &gt; 30 min

**Skin protection**

Avoid contact with skin, eyes and clothing.

**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
Odour:	odourless

**Test method**

pH-Value (at 20 °C): &lt; 1,0

**Changes in the physical state**

Melting point: not applicable

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**14794-42 Magnesium Reference Standard Solution 1000 ± 10 mg/l**

Revision date: 29.10.2015

Product code: 1479442

Page 5 of 9

Initial boiling point and boiling range:	100 °C
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	not applicable
:	no data available
Flash point:	not applicable
Sustaining combustion:	No data available
<b>Flammability</b>	
Solid:	not applicable
Gas:	not applicable
<b>Explosive properties</b>	
not applicable	
Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Ignition temperature:	no data available
<b>Auto-ignition temperature</b>	
Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	no data available
<b>Oxidizing properties</b>	
no data available	
Vapour pressure:	no data available
Vapour pressure:	no data available
Density (at 20 °C):	1,004 g/cm <sup>3</sup>
Bulk density:	not applicable
Water solubility:	no data available soluble
<b>Solubility in other solvents</b>	
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	

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No dangerous reaction known under conditions of normal use.

**10.2. Chemical stability**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 14794-42 Magnesium Reference Standard Solution 1000 ± 10 mg/l

Revision date: 29.10.2015

Product code: 1479442

Page 6 of 9

Stable under recommended storage conditions.

#### **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**

Strong bases

#### **10.6. Hazardous decomposition products**

nitrogen oxides (NO<sub>x</sub>)

#### **Further information**

Stable under recommended storage conditions.

## 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**

Risk of serious damage to eyes.

Causes skin irritation.

#### **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**

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

#### **Aspiration hazard**

No aspiration toxicity classification

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

No toxicology information is available.

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

None known.

#### **Practical experience**

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

None known.

#### **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.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 14794-42 Magnesium Reference Standard Solution 1000 ± 10 mg/l

Revision date: 29.10.2015

Product code: 1479442

Page 7 of 9

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

No data is available on the product itself.

#### 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.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Advice on disposal

In accordance with local and national regulations.

##### Waste disposal number of waste from 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

##### Waste disposal number of 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

##### Waste disposal number of 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.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

<b>14.1. UN number:</b>	UN 3264
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	I
Hazard label:	8

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 14794-42 Magnesium Reference Standard Solution 1000 ± 10 mg/l

Revision date: 29.10.2015

Product code: 1479442

Page 8 of 9



Classification code: C1  
Special Provisions: 274  
Limited quantity: 0  
Transport category: 1  
Hazard No: 88  
Tunnel restriction code: E

#### Other applicable information (land transport)

Excepted Quantities: E0

#### Inland waterways transport (ADN)

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

Not tested

#### Marine transport (IMDG)

**14.1. UN number:** UN 3264  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** I  
Hazard label: 8



Special Provisions: 274  
Limited quantity: 0  
EmS: F-A, S-B

#### Other applicable information (marine transport)

Excepted Quantities: E0

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

**14.1. UN number:** UN 3264  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** I  
Hazard label: 8



Special Provisions: A3 A803  
Limited quantity Passenger: Forbidden  
IATA-packing instructions - Passenger: 850  
IATA-max. quantity - Passenger: 0.5 L  
IATA-packing instructions - Cargo: 854  
IATA-max. quantity - Cargo: 2.5 L

#### Other applicable information (air transport)

Excepted Quantities: E0

Passenger-LQ: Forbidden

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 14794-42 Magnesium Reference Standard Solution 1000 ± 10 mg/l

Revision date: 29.10.2015

Product code: 1479442

Page 9 of 9

#### 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 contaminating class (D):                      -- not water contaminating

#### 15.2. Chemical safety assessment

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

### SECTION 16: Other information

#### **Changes**

Revision: 29.10.2015

Safety datasheet sections which have been updated: 2, 4, 11, 16

Revision: 27.08.2014

Safety datasheet sections which have been updated: 4 - 16

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

H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
EUH071	Corrosive to the respiratory tract.

#### **Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances 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.)*