

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 2824349 Ammonia ISA Solution

Revision date: 22.08.2017

Product code: 2824349

Page 1 of 10

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

### 1.1. Product identifier

2824349 Ammonia ISA Solution

### 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:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1A

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Harmful if swallowed.

Causes severe skin burns and eye damage.

Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

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

#### Hazard components for labelling

Lithium hydroxide

Signal word: Danger

Pictograms:



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**2824349 Ammonia ISA Solution**

Revision date: 22.08.2017

Product code: 2824349

Page 2 of 10

**Hazard statements**

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P363	Wash contaminated clothing before reuse.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310	Immediately call a POISON CENTER/doctor.

**Additional advice on labelling**

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

**2.3. Other hazards**

None known.

**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	75 - 85 %
	231-791-2	
1310-65-2	Lithium hydroxide	10 - 20 %
	215-183-4	
	Acute Tox. 3, Acute Tox. 3, Skin Corr. 1A; H331 H301 H314	
6381-92-6	Ethylenedinitrotetraacetic acid disodium salt dihydrate	1 - 5 %
	205-358-3	
	Eye Irrit. 2; H319	
125-20-2	Thymolphthalein	< 0,1 %
	204-729-7	
	Aquatic Acute 1 (M-Factor = 10), Aquatic Chronic 1 (M-Factor = 10); H400 H410	

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.  
Consult a physician. Show this safety data sheet to the doctor in attendance.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 2824349 Ammonia ISA Solution

Revision date: 22.08.2017

Product code: 2824349

Page 3 of 10

#### After inhalation

Move to fresh air.  
Consult a physician. Show this safety data sheet to the doctor in attendance.

#### After contact with skin

Wash off immediately with plenty of water for at least 15 minutes.  
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Show this safety data sheet to the doctor in attendance.

#### After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Show this safety data sheet to the doctor in attendance.

#### After ingestion

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting.  
Consult a physician. Show this safety data sheet to the doctor in attendance.

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

Irritation and corrosion, Nausea, Vomiting, Diarrhoea

#### **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.

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

No Limit

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

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. Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.  
Do not breathe vapours, mist or gas.

#### **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**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**2824349 Ammonia ISA Solution**

Revision date: 22.08.2017

Product code: 2824349

Page 4 of 10

**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**

None known.  
See also section 5

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

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

**Hints on joint storage**

Do not store together with Acids, Metals, Oxidizing agents

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

Laboratory chemicals

**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
1310-65-2	Lithium hydroxide	-	1		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 after work.

**Eye/face protection**

Safety glasses with side-shields

**Hand protection**

Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

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

**Skin protection**

Avoid contact with skin, eyes and clothing.

Remove and wash contaminated clothing before re-use.

**Respiratory protection**

Breathing apparatus only if aerosol or dust is formed.

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

Physical state: Liquid  
Colour: blue

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**2824349 Ammonia ISA Solution**

Revision date: 22.08.2017

Product code: 2824349

Page 5 of 10

Odour: odourless

pH-Value (at 20 °C): no data available

**Changes in the physical state**

Melting point: no data available

Initial boiling point and boiling range: not applicable

Sublimation point: no data available

Softening point: not applicable

Pour point: not applicable

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: not applicable

**Auto-ignition temperature**

Solid: no data available

Gas: no data available

Decomposition temperature: no data available

**Oxidizing properties**

not applicable

Vapour pressure: not applicable

Vapour pressure: no data available

Density (at 20 °C): no data available

Bulk density: no data available

Water solubility: soluble

(at 20 °C)

**Solubility in other solvents**

no data available

Partition coefficient: no data available

Viscosity / dynamic: not applicable

Viscosity / kinematic: not applicable

Flow time: not applicable

Vapour density: not applicable

Evaporation rate: not applicable

Solvent separation test: not applicable

Solvent content: not applicable

**9.2. Other information**

Solid content: not applicable

**SECTION 10: Stability and reactivity**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 2824349 Ammonia ISA Solution

Revision date: 22.08.2017

Product code: 2824349

Page 6 of 10

#### 10.1. Reactivity

No dangerous reaction known under conditions of normal use.

#### 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

Reacts with the following substances: Acids, Oxidizing agents

#### 10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.

Exposure to moisture.

#### 10.5. Incompatible materials

Metals, Acids, Combustible material, Oxidizing agents

#### 10.6. Hazardous decomposition products

Decomposition products: Contact with metals liberates hydrogen gas.

### 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.

##### ATEmix calculated

ATE (oral) 1166,7 mg/kg; ATE (inhalation vapour) 16,67 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1310-65-2	Lithium hydroxide				
	oral	LD50 210 mg/kg	Ratte		
	inhalation vapour	ATE 3 mg/l			
	inhalation (4 h) aerosol	LC50 0,96 mg/l	Ratte		
6381-92-6	Ethylenedinitrilotetraacetic acid disodium salt dihydrate				
	oral	LD50 >2000 mg/kg	rat		

##### Irritation and corrosivity

The product causes burns of eyes, skin and mucous membranes.

##### 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.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 2824349 Ammonia ISA Solution

Revision date: 22.08.2017

Product code: 2824349

Page 7 of 10

#### 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

May cause long-term adverse effects in the aquatic environment.

Do not flush into surface water or sanitary sewer system.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
6381-92-6	Ethylenedinitrilotetraacetic acid disodium salt dihydrate					
	Acute fish toxicity	LC50 320 mg/l	96 h	Poecilia reticulata (guppy)	IUCLID	
	Acute algae toxicity	ErC50 mg/l 10-100	72 h			
125-20-2	Thymolphthalein					
	Acute fish toxicity	LC50 mg/l 0,017	96 h			
	Acute crustacea toxicity	EC50 mg/l 0,018	48 h			

#### 12.2. Persistence and degradability

No data is available on the product itself.

#### 12.3. Bioaccumulative potential

No data is available on the product itself.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
125-20-2	Thymolphthalein	7,06

#### 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

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**2824349 Ammonia ISA Solution**

Revision date: 22.08.2017

Product code: 2824349

Page 8 of 10

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.

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)**

**14.1. UN number:** UN 2679  
**14.2. UN proper shipping name:** LITHIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8




Classification code: C5  
Limited quantity: 1 L  
Excepted quantity: E2  
Transport category: 2  
Hazard No: 80  
Tunnel restriction code: E

**Inland waterways transport (ADN)**

**Other applicable information (inland waterways transport)**  
Not tested

**Marine transport (IMDG)**

**14.1. UN number:** UN 2679  
**14.2. UN proper shipping name:** LITHIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8



Marine pollutant: --  
Special Provisions: -  
Limited quantity: 1 L  
Excepted quantity: E2  
EmS: F-A, S-B

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

**14.1. UN number:** UN 2679  
**14.2. UN proper shipping name:** LITHIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**2824349 Ammonia ISA Solution**

Revision date: 22.08.2017

Product code: 2824349

Page 9 of 10



Special Provisions:	A3 A803	
Limited quantity Passenger:	0.5 L	
Passenger LQ:	Y840	
Excepted quantity:	E2	
IATA-packing instructions - Passenger:		851
IATA-max. quantity - Passenger:		1 L
IATA-packing instructions - Cargo:		855
IATA-max. quantity - Cargo:		30 L

**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 applicable

**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  
These transport data apply to the entire pack

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 1 - slightly 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: 22.08.2017

Safety datasheet sections which have been updated: 2, 3

Revision: 06.01.2016

Safety datasheet sections which have been updated: 1-16

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

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 2824349 Ammonia ISA Solution

Revision date: 22.08.2017

Product code: 2824349

Page 10 of 10

H412 Harmful to aquatic life with long lasting effects.

#### 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.

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