# Safety Data Sheet

*according to Regulation (EC) No. 1907/2006 (REACH)*

| *Revision date: 28.12.2017* | *Version: 7.0* | *Print date: 28.12.2017* |
|---|---|---|

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

### 1.1 Product identifier

| | |
|---|---|
| Trade name/designation: | Ammonia 32% HiPerSolv CHROMANORM® for HPLC |
| Product No.: | 15331 |
| CAS No.: | 1336-21-6 |
| INDEX No.: | not applicable |
| REACH No.: | not applicable |
| Other means of identification: | no data available |

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

| | |
|---|---|
| Relevant identified uses: | General chemical reagent |

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

*United Kingdom*

***VWR International Ltd.***

| | |
|---|---|
| Street | Hunter Boulevard, Magna Park |
| Postal code/city | Lutterworth, LE17 4XN |
| Telephone | 0800 22 33 44 |
| Telefax | 01455 55 85 86 |
| E-mail (competent person) | SDS@vwr.com |

### Emergency telephone

| | |
|---|---|
| Telephone | +44 (0) 1270 502894 (CareChem24) |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

### 2.1.1 Classification according to Regulation (EC) No. 1272/2008 [CLP]

| Hazard classes and hazard categories | Hazard statements |
|---|---|
| Skin corrosion, category 1B | H314 |
| Specific target organ toxicity (single exposure), category 3, vascular | H335 |
| Hazardous to the aquatic environment, acute, category 1 | H400 |

### 2.2 Label elements

### 2.2.1 Labelling according to Regulation (EC) No. 1272/2008 [CLP]

**Hazard pictograms**



**Signal word:** Danger

| Hazard statements | |
|---|---|
| H314 | Causes severe skin burns and eye damage. |
| H335 | May cause respiratory irritation. |
| H400 | Very toxic to aquatic life. |

| Precautionary statements | |
|---|---|
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P273 | Avoid release to the environment. |
| P301+P330+P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P308+P310 | IF exposed or concerned: Immediately call a POISON CENTER/doctor. |

Other hazards

none

## SECTION 3: Composition / information on ingredients

### 3.1 Substances

not applicable

### 3.2 Mixtures

**Hazardous ingredients Classification according to Regulation (EC) No. 1272/2008 [CLP]**

| Substance name | Concentration | Product identifier | Hazard classes and hazard categories |
|---|---|---|---|
| Ammonium hydroxide | 30 - 35% | CAS No.: 1336-21-6<br>EC No.:<br>REACH No.:<br>01-2119982985-14-XXXX | Skin Corr. 1B - H314<br>STOT SE 3 - H335<br>Aquatic Acute 1 - H400 |

## SECTION 4: First aid measures

### 4.1 General information

IF exposed: Immediately call a POISON CENTRE/doctor. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

#### After inhalation

Immediately call a POISON CENTRE/doctor. Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

#### In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

#### After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

#### In case of ingestion

Immediately call a POISON CENTRE/doctor. Do NOT induce vomiting. Rinse mouth thoroughly with water. Give nothing to eat or drink.

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

no data available

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

no data available

### 4.4 Self-protection of the first aider

First aider: Pay attention to self-protection!

### 4.5 Information to physician

no data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**

The product itself does not burn.
Co-ordinate fire-fighting measures to the fire surroundings.

**Extinguishing media which must not be used for safety reasons**

no restriction

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

In case of fire may be liberated:
Nitrogen oxides (NOx)

### 5.3 Advice for firefighters

DO NOT fight fire when fire reaches explosives.
Special protective equipment for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing.

### Additional information

Do not allow run-off from fire-fighting to enter drains or water courses.
Do not inhale explosion and combustion gases.
Use water spray jet to protect personnel and to cool endangered containers.
In case of fire: Evacuate area.

## SECTION 6: Accidental release measures

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

Provide adequate ventilation. Use personal protection equipment.

### 6.2 Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

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

Spilled product must never be returned to the original container for recycling. Clean contaminated objects and areas thoroughly observing environmental regulations. Collect in closed and suitable containers for disposal.

### 6.4 Additional information

Clear spills immediately.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid: Inhalation Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Protect from moisture.

## 7.2 Conditions for safe storage, including any incompatibilities

Recommended storage temperature: 15-25 °C
Storage class: 8B
Keep container tightly closed and in a well-ventilated place.

## 7.3 Specific end use(s)

no data available

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

### 8.2.2 Personal protection equipment

Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

*Eye/face protection*
Eye glasses with side protection DIN-/EN-Norms: DIN EN 166
Recommendation: VWR 111-0432

*Skin protection*
When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Recommended glove articles DIN-/EN-Norms: DIN EN 374 In the case of wanting to use the gloves again, clean them before taking off and air them well.

By short-term hand contact

| | |
|---|---|
| Suitable material: | NBR (Nitrile rubber) |
| Thickness of the glove material: | 0,425 mm |
| Breakthrough time (maximum wearing time): | 10 min |
| Recommended glove articles: | VWR 112-0971 |

By long-term hand contact

| | |
|---|---|
| Suitable material: | Butyl caoutchouc (butyl rubber) |
| Thickness of the glove material: | 0,50 mm |
| Breakthrough time (maximum wearing time): | > 480 min |
| Recommended glove articles: | VWR 112-1570 |

*Respiratory protection*

Respiratory protection necessary at: aerosol or mist formation

| | |
|---|---|
| Suitable respiratory protection apparatus: | Full-/half-/quarter-face masks (DIN EN 136/140) |
| Recommendation: | VWR 111-0206 |
| Suitable material: | K1 |
| Recommendation: | VWR 111-0052 |

*Additional information*

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

**8.2.3** *Environmental exposure controls*

no data available

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| (a) Appearance | |
| Physical state: | liquid |
| Colour: | colourless |
| (b) Odour: | no data available |
| (c) Odour threshold: | no data available |

### Safety relevant basic data

| | |
|---|---|
| (d) pH: | no data available |
| (e) Melting point/freezing point: | no data available |
| (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): | not applicable |
| (j) Flammability or explosive limits | |
| Lower explosion limit: | no data available |
| Upper explosion limit: | no data available |
| (k) Vapour pressure: | no data available |
| (l) Vapour density: | no data available |
| (m) Relative density: | 0.88 g/cm³ (20 °C) |
| (n) Solubility(ies) | |
| Water solubility (g/L): | no data available |
| Soluble (g/L) in Ethanol: | no data available |
| (o) Partition coefficient: n-octanol/water: | no data available |
| (p) Auto-ignition temperature: | no data available |
| (q) Decomposition temperature: | no data available |
| (r) Viscosity | |
| Kinematic viscosity: | no data available |
| Dynamic viscosity: | no data available |
| (s) Explosive properties: | not applicable |
| (t) Oxidising properties: | not applicable |

### 9.2 Other information

| | |
|---|---|
| Bulk density: | not applicable |
| Refraction index: | no data available |
| Dissociation constant: | no data available |
| Surface tension: | no data available |
| Henry constant: | no data available |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

### 10.3 Possibility of hazardous reactions

The generally known reaction partners of water.

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

no data available

### 10.7 Additional information

no data available

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute effects**

*Acute oral toxicity*:

Ammonium hydroxide - LD50: 350 mg/kg - Rat - (National Library of Medicine ChemID Plus (NLM CIP))

*Acute dermal toxicity*:

no data available

*Acute inhalation toxicity*:

no data available

**Irritant and corrosive effects**
*Primary irritation to the skin:*
Causes severe skin burns and eye damage.

*Irritation to eyes:*
Causes serious eye damage.

*Irritation to respiratory tract:*
May cause respiratory irritation.

**Respiratory or skin sensitisation**
In case of skin contact: not sensitising
After inhalation: not sensitising

**STOT-single exposure**
May cause respiratory irritation.

**STOT-repeated exposure**
not applicable

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
**Carcinogenicity**
No indication of human carcinogenicity.

**Germ cell mutagenicity**
No indications of human germ cell mutagenicity exist.

**Reproductive toxicity**
No indications of human reproductive toxicity exist.

**Aspiration hazard**
not applicable

**Other adverse effects**
no data available

**Additional information**
no data available

## SECTION 12: Ecological information

### 12.1 Ecotoxicity

**Fish toxicity:**
no data available

**Daphnia toxicity**:
no data available

**Algae toxicity:**
no data available

**Bacteria toxicity:**
no data available

### 12.2 Persistence and degradability
no data available

### 12.3 Bioaccumulative potential
Partition coefficient: n-octanol/water: no data available

### 12.4 Mobility in soil:
no data available

### 12.5 Results of PBT/vPvB assessment
no data available

### 12.6 Other adverse effects
no data available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Appropriate disposal / Product**
Dispose according to local legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product: no data available

**Appropriate disposal / Package**
Dispose according to local legislation. Handle contaminated packages in the same way as the substance itself.

**Additional information**
no data available

## SECTION 14: Transport information

### Land transport (ADR/RID)

| | | |
|---|---|---|
| 14.1 | UN-No.: | 2672 |
| 14.2 | Proper Shipping Name: | AMMONIA SOLUTION |
| 14.3 | Class(es): | 8 |
| | Classification code: | C5 |
| | Hazard label(s): | 8 |
| 14.4 | Packing group: | III |
| 14.5 | Environmental hazards: | Dangerous for the environment |
| 14.6 | Special precautions for user: | |
| | Hazard identification number (Kemler No.): | 80 |
| | tunnel restriction code: | E |
| | | (Passage forbidden through tunnels of category E.) |

## Sea transport (IMDG)

| | | |
|---|---|---|
| 14.1 | UN-No.: | 2672 |
| 14.2 | Proper Shipping Name: | AMMONIA SOLUTION |
| 14.3 | Class(es): | 8 |
| | Classification code: | |
| | Hazard label(s): | 8 |
| 14.4 | Packing group: | III |
| 14.5 | Environmental hazards: | Dangerous for the environment |
| | MARINE POLLUTANT: | Yes (P) |
| 14.6 | Special precautions for user: | |
| | Segregation group: | 18 |
| | EmS-No. | F-A S-B |

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
not relevant

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

| | | |
|---|---|---|
| 14.1 | UN-No.: | 2672 |
| 14.2 | Proper Shipping Name: | AMMONIA SOLUTION |
| 14.3 | Class(es): | 8 |
| | Classification code: | |
| | Hazard label(s): | 8 |
| 14.4 | Packing group: | III |
| 14.5 | Special precautions for user: | |

# SECTION 15: Regulatory information

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

**EU legislation**

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Text with EEA relevance)
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)
- Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance)
- Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

**National regulations**

no data available

Water hazard class (WGK): no data available

### 15.2 Chemical Safety Assessment

no data available

## SECTION 16: Other information

**Abbreviations and acronyms**

ACGIH - American Conference of Governmental Industrial Hygiensts
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
AGS - Committee on Hazardous Substances (Ausschuss für Gefahrstoffe)
CLP - Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DFG - German Research Foundation (Deutsche Forschungsgemeinschaft)
Gestis - Information system on hazardous substances of the German Social Accident Insurance (Gefahrstoffinformationssystem der Deutschen Gesetzlichen Unfallversicherung)
IATA-DGR - International Air Transport Association-Dangerous Goods Regulations
ICAO-TI - International Civil Aviation Organization-Technical Instructions
IMDG - International Maritime Code for Dangerous Goods
LTV - Long Term Value
NIOSH - National Institute for Occupational Safety and Health
OSHA - Occupational Safety & Health Administration
PBT - Persistent, Bioaccumulative and Toxic
RID - Regulation concerning the International Carriage of Dangerous Goods by Rail
STV - Short Term Value
SVHC - Substances of Very High Concern
vPvB - very Persistent, very Bioaccumulative

**Additional information**

Indication of changes: general update

*The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.*