

Ammonia R2

Date 19.3.2008

Previous date: -

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**1.1 Identification of the substance or preparation****1.1.1 Commercial Product Name**

Ammonia R2

1.1.2 Product code

984641

1.2 Use of the Substance/Preparation**1.2.1 Expressed in writing**

For general laboratory purposes.

1.3 Company/undertaking identification**1.3.1 Supplier**

Thermo Fisher Scientific Oy, Clinical Diagnostics Finland

1.3.2 Contact information:

Ratastie 2, P.O.Box 100
 FI-01621 Vantaa
 FINLAND
 +358-9-329 100
 +358-9-3291 0300
 FI09215470

2. HAZARDS IDENTIFICATION

Corrosive.

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Hazardous components**

| 3.1.1 CAS/EC and Reg.number | 3.1.2 Chemical name of the substance | 3.1.3 Concentration | 3.1.4 Classification |
|------------------------------------|---|----------------------------|-----------------------------|
| 1310-73-2 | Sodium hydroxide | 3.2 % | C; R35 |

4. FIRST AID MEASURES**4.1 Additional advice**

Take off all contaminated clothing immediately.

4.2 Inhalation

Move to fresh air. Oxygen or artificial respiration if needed. If symptoms persist, call a physician.

4.3 Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

4.4 Eye contact

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

4.5 Ingestion

If swallowed, seek medical advice immediately and show this container or label. Drink 1 or 2 glasses of water. Do NOT induce vomiting.

5. FIRE-FIGHTING MEASURES**5.1 Suitable extinguishing media**Carbon dioxide (CO₂), Foam, Water

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6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions**
Use personal protective equipment.
- 6.2 Environmental precautions**
Flush with plenty of water. Do not flush into surface water or sanitary sewer system.
- 6.3 Methods for cleaning up**
Soak up with inert absorbent material and dispose of as hazardous waste.

7. HANDLING AND STORAGE

- 7.1 Handling**
Avoid contact with skin and eyes. Wear personal protective equipment.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Exposure Limit Values**
- 8.1.1 Threshold limits**
1310-73-2 Sodium hydroxide 2 mg/m³ (8 h)
- 8.2 Exposure controls**
- 8.2.1 Occupational exposure controls**
Wear protective gloves.
- 8.2.1.1 Respiratory protection**
No personal respiratory protective equipment normally required.
- 8.2.1.2 Hand protection**
Impervious gloves
- 8.2.1.3 Eye protection**
Face-shield, if there is a risk of spalshing. Do not use contact lenses, if there is a risk of splashing into the eyes.
- 8.2.1.4 Skin and body protection**
Lab coat

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 General Information (appearance, odour)**
liquid
- 9.2 Important Health Safety and Environmental Information**
- 9.2.2 Boiling point/range** 100 °C
- 9.2.4 Flammability (solid, gas)** not auto-flammable
- 9.2.7 Vapour pressure** not determined
- 9.2.8 Relative density** 1.0 g/cm³
- 9.2.9 Solubility**
- 9.2.9.1 Water solubility** completely soluble

10. STABILITY AND REACTIVITY

- 10.2 Materials to avoid**
Acids

11. TOXICOLOGICAL INFORMATION

- 11.1 Acute toxicity**

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Sodium hydroxide:
LD50/oral/rat = 2000 mg/kg

11.2 Primary irritation

According to concentration, aqueous solution causes irritation or burns of eyes, skin and mucous membranes.

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity****12.1.1 Aquatic toxicity**

Sodium hydroxide :
20 - 100 mg/l of sodium hydroxide in water may kill some water organisms by raising the pH.
Kala: LC₅₀ = 33 - 100 mg/l, 48 h

12.2 Mobility

Sodium hydroxide :
Highly soluble in water, diffuses in the environment with water.

12.3 Persistence and degradability**12.3.2 Chemical degradation**

Sodium hydroxide:
hydrolyses in water.

13. DISPOSAL CONSIDERATIONS

The product has to be disposed of as laboratory chemical in accordance with local regulations.

14. TRANSPORT INFORMATION

| | | |
|---------------|---------------------------------|---------------------------|
| 14.1 | UN-No | UN1824 |
| 14.2 | Packaging group | III |
| 14.3 | Land transport | |
| 14.3.1 | Class | 8 |
| 14.3.2 | Risk No. | - |
| 14.3.3 | Description of the goods | Sodium hydroxide |
| 14.4 | Sea transport | |
| 14.4.1 | IMDG | 8/III UN 1824 |
| 14.4.2 | Proper shipping name | Sodium hydroxide solution |
| 14.5 | Air transport | |
| 14.5.1 | ICAO/IATA | 8 UN 1824 |
| 14.5.2 | Proper shipping name | Sodium hydroxide solution |

15. REGULATORY INFORMATION**15.1 Information on the warning label****15.1.1 Letter code of the warning symbol and indications of danger for the preparation**

C Corrosive

15.1.2 Names of the ingredients given on the warning label

Sodium hydroxide

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- | | | |
|---------------|---------------------|---|
| 15.1.3 | R-phrases(s) | |
| | R34 | Causes burns. |
| 15.1.4 | S-phrases(s) | |
| | S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| | S45 | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |

16. OTHER INFORMATION**16.1 List of relevant R phrases**

- | | |
|-----|----------------------|
| R35 | Causes severe burns. |
| R34 | Causes burns. |

16.4 Additional information available from:

Code of the Material Safety Data Sheet: D06704-01-MSDS-Ammonia R2-EN
Corporation mentioned in point 1.3.

The information in this datasheet is to our best knowledge correct and complete, and is offered in good faith as accurate. It characterizes the product with regard to the appropriate safety precautions. It does not guarantee properties of the product.

16.5 Literary reference

The MSDS of the manufacturer.

his product has been evaluated in accordance with the directives 1967/548/EEC, 1999/45/EC and 2001/58/EC.
IATA Dangerous Goods Regulations

19.03.2008

LMKo