



MATERIAL SAFETY DATA SHEET

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Revised edition no : 3

Date : 6 / 10 / 2009

Supersedes : 23 / 1 / 2009

0-500PPM AMMONIA IN NITROGEN

AL414

Label 2.2 : Non flammable, non toxic gas.

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Trade name : 0-500PPM AMMONIA IN NITROGEN
MSDS Nr : AL414
Use : Calibration.
Company identification : Air Liquide
Level 9, 380 St.Kilda Road
3004 Melbourne AUSTRALIA
Emergency phone nr : 1800 812 588

2 HAZARDS IDENTIFICATION

Hazard classification : Not classified as hazardous according to NOHSC criteria.
Classified as a dangerous good by the criteria of the ADG code.
Hazards identification : In high concentrations may cause asphyxiation.
Compressed gas.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Preparation : Preparation.
Components : This product is not hazardous but contains hazardous components.

Substance name	Contents	CAS No	EC No	Annex No	Classification
Anhydrous ammonia	:	7664-41-7	231-635-3	007-001-00-5	R10 T; R23 C; R34 N; R50
Nitrogen	:	7727-37-9	231-783-9	----	

4 FIRST AID MEASURES

First aid measures

- Inhalation** : In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
- Ingestion** : Ingestion is not considered a potential route of exposure.

5 FIRE-FIGHTING MEASURES

Flammable class : Non flammable.
Specific hazards : Exposure to fire may cause containers to rupture/explode.
Hazardous combustion products : No data available.
Extinguishing media

Air Liquide

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5 FIRE-FIGHTING MEASURES (continued)

- Suitable extinguishing media : All known extinguishants can be used.
- Specific methods : If possible, stop flow of product.
Move away from the container and cool with water from a protected position.
- Special protective equipment for fire fighters : In confined space use self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

- Personal precautions : Evacuate area.
Ensure adequate air ventilation.
Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.
- Environmental precautions : Try to stop release.
- Clean up methods : Ventilate area.

7 HANDLING AND STORAGE

- Storage : Keep container below 50°C in a well ventilated place.
- Handling : Open valve slowly to avoid pressure shock.
Suck back of water into the container must be prevented.
Do not allow backfeed into the container.
Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.
Refer to supplier's container handling instructions.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- Personal protection : Ensure adequate ventilation.
- Occupational Exposure Limits : Anhydrous ammonia : ILV (EU) - 8 H - [mg/m³] : 14
Anhydrous ammonia : ILV (EU) - 8 H - [ppm] : 20
Anhydrous ammonia : ILV (EU) - 15 min - [mg/m³] : 36
Anhydrous ammonia : ILV (EU) - 15 min - [ppm] : 50
Anhydrous ammonia : TLV© -TWA [ppm] : 25
Anhydrous ammonia : TLV© -STEL [ppm] : 35

9 PHYSICAL AND CHEMICAL PROPERTIES

- Physical state at 20 °C : Compressed gas.
- Colour : Colourless.
- Odour : Ammonia.
- Relative density, gas (air=1) : Lighter or similar to air.
- Solubility in water [mg/l] : Not known.

10 STABILITY AND REACTIVITY

- Stability and reactivity : Stable under normal conditions.



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11 TOXICOLOGICAL INFORMATION

Toxicity information : No known toxicological effects from this product.

12 ECOLOGICAL INFORMATION

Ecological effects information : No known ecological damage caused by this product.
Effect on ozone layer : None.

13 DISPOSAL CONSIDERATIONS

General : Do not discharge into any place where its accumulation could be dangerous.
Contact supplier if guidance is required.
Disposal method : Consult supplier for specific recommendations.

14 TRANSPORT INFORMATION

UN No. : 1956
Labelling ADG : Label 2.2 : Non flammable, non toxic gas.
H.I. nr : 20
Proper shipping name : COMPRESSED GAS, N.O.S. (Nitrogen, Anhydrous ammonia)
HAZCHEM - Emergency Action Code : 2TE
: 2 = *Fine water spray.*
T = Recommended personal protective equipment : Full fire kit and breathing apparatus.
Appropriate measures : dilute.
E = There may be a public safety hazard outside the immediate area of the incident, and that the following actions should be considered :
1. People should be warned to stay indoors with all doors and windows closed, preferably in rooms upstairs and facing away from the incident. Ignition sources should be eliminated and any ventilation stopped.
2. Effects may spread beyond the immediate vicinity. all non-essential personnel should be instructed to move at least 250 metres away from the incident.
3. Police and fire brigade incident commanders should consult each other and with a product expert, or with a source of product expertise.
4. The possible need for subsequent evacuation should be considered, but it should be remembered that in most cases it will be safer to remain in a building than to evacuate.

- ADG Class : 2
- ADG Classification code : 1 A
Other transport information : Avoid transport on vehicles where the load space is not separated from the driver's compartment.
Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.
Before transporting product containers :
- Ensure that containers are firmly secured.
- Ensure cylinder valve is closed and not leaking.
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
- Ensure valve protection device (where provided) is correctly fitted.
- Ensure there is adequate ventilation.
- Compliance with applicable regulations.

15 REGULATORY INFORMATION

EC Labelling : Not classified as dangerous preparation/substance.



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15 REGULATORY INFORMATION (continued)

Symbol(s) : None.
R Phrase(s) : None.
S Phrase(s) : None.

16 OTHER INFORMATION

Asphyxiant in high concentrations.
Keep container in a well-ventilated place.
Do not breathe the gas.
The hazard of asphyxiation is often overlooked and must be stressed during operator training.
Receptacle under pressure.
Ensure all national/local regulations are observed.

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.

DISCLAIMER OF LIABILITY : Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.
Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

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