

Safety data sheet Nitrogen, compressed.

Creation date : 27.01.2005
Revision date : 06.02.2012

Version : 2.1

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1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name

Nitrogen, compressed.
EC No (from EINECS): 231-783-9
CAS No: 7727-37-9

Index-Nr. -

Chemical formula N₂

REACH Registration number:

Listed in Annex IV/V of Regulation (EC) No 1907/2006 (REACH), exempted from registration.

Known uses

Not known.

Company identification

Linde AG, Linde Gas Division, Seitnerstraße 70, D-82049 Pullach
E-Mail Address Info@de.linde-gas.com
Emergency phone numbers (24h): 089-7446-0

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification acc. to Regulation (EC) No 1272/2008/EC (CLP/GHS)

Press. Gas (Compressed gas) - Contains gas under pressure; may explode if heated.

Classification acc. to Directive 67/548/EEC & 1999/45/EC

Not classified as hazardous to health.

Asphyxiant in high concentrations.

Risk advice to man and the environment

In high concentrations may cause asphyxiation.

Compressed gas.

Label Elements

- Labelling Pictograms



- Signal word

Warning

- Hazard Statements

H280 Contains gas under pressure; may explode if heated.
EIGA-As Asphyxiant in high concentrations.

- Precautionary Statements

Precautionary Statement Prevention
None.

Precautionary Statement Response
None.

Precautionary Statement Storage
P403 Store in a well-ventilated place.

Precautionary Statement Disposal
None.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation: Substance.

Components/Impurities

Nitrogen, compressed.

CAS No: 7727-37-9

Index-Nr.: -

EC No (from EINECS): 231-783-9

REACH Registration number:

Listed in Annex IV/V of Regulation (EC) No 1907/2006 (REACH), exempted from registration.

Contains no other components or impurities which will influence the classification of the product.

4 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

Specific hazards

Exposure to fire may cause containers to rupture/explode. Non flammable.

Hazardous combustion products

None.

Suitable extinguishing media

All known extinguishants can be used.

Specific methods

If possible, stop flow of product. Move container away or cool with water from a protected position.

Special protective equipment for fire-fighters

Normal firefighters' equipment consists of an appropriate SCBA (open-circuit positive pressure compressed air type) in combination with fire kit. Equipment and clothing to the following standards will provide a suitable level of protection for firefighters.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions

Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. EN 137 Respiratory protective devices — Self-contained open-circuit compressed air breathing apparatus with full face mask — Requirements, testing, marking.

Environmental precautions

Try to stop release.

Clean up methods

Ventilate area.

7 HANDLING AND STORAGE

Handling

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 handling instructions. Only experienced and properly instructed persons should handle gases under pressure. Protect

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containers from physical damage; do not drag, roll, slide or drop. Never use direct flame or electrical heating devices to raise the pressure of a container. Do not remove or deface labels provided by the supplier for the identification of the container contents. When moving containers, even for short distances, use appropriate equipment eg. trolley, hand truck, fork truck etc. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. Ensure the complete gas system has been (or is regularly) checked for leaks before use. If user experiences any difficulty operating container valve discontinue use and contact supplier. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment. Keep container valve outlets clean and free from contaminants particularly oil and water. Never attempt to transfer gases from one container to another. Do not smoke while handling product. The substance must be handled in accordance with good industrial hygiene and safety procedures.

Storage

Keep container below 50°C in a well ventilated place. Observe all regulations and local requirements regarding storage of containers. Containers should not be stored in conditions likely to encourage corrosion. Cylinders should be stored in the vertical position and properly secured to prevent falling over. Stored containers should be periodically checked for general conditions and leakage. Container valve guards or caps should be in place. Store containers in location free from fire risk and away from sources of heat and ignition. Keep away from ignition sources (including static discharges). Keep away from combustible materials. Secure cylinders to prevent them from falling. Observe "Technische Regeln Druckgase (TRG) 280 Ziffer 5"

8 EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure limit value**

Value type	value	Note
Respiratory protection		
Not required		
Hand protection		
Advice		
Wear working gloves and safety shoes while handling containers.		
Personal protection		
Ensure adequate ventilation.		

Respiratory protection

Not required

Hand protection**Advice**

Wear working gloves and safety shoes while handling containers.

Personal protection

Ensure adequate ventilation.

9 PHYSICAL AND CHEMICAL PROPERTIES**General information****Appearance/Colour:** Colourless gas.**Odour:** None.**Important information on environment, health and safety****Molecular weight:** 28 g/mol**Melting point:** -210 °C**Boiling point:** -196 °C**Critical temperature:** -147 °C**Flash point:** Not applicable for gases and gas mixtures.**Autoignition temperature:** Not applicable.**Flammability range:** Non flammable.**Relative density, gas (Air=1):** 0,97**Relative density, liquid (Water=1):** 0,8**Vapour Pressure 20 °C:** Not applicable.**Solubility in water:** 20 mg/l**Maximum filling pressure (bar):** 300 bar**Other data**

None.

10 STABILITY AND REACTIVITY**Stability and reactivity**

Stable under normal conditions.

Hazardous decomposition products**Statements on decomposition**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 TOXICOLOGICAL INFORMATION**General**

No known toxicological effects from this product.

12 ECOLOGICAL INFORMATION**General**

No ecological damage caused by this product.

13 DISPOSAL CONSIDERATIONS**General**

Do not discharge into any place where its accumulation could be dangerous. Contact supplier if guidance is required. Vent to atmosphere in a well ventilated place. Consult supplier for specific recommendations. Refer to the EIGA code of practice (Doc.30 "Disposal of Gases", downloadable at <http://www.eiga.org>) for more guidance on suitable disposal methods.

Gases in pressure containers excluding those, which are mentioned under 16 05 04

EWC Nr. 16 05 05**14 TRANSPORT INFORMATION****ADR/RID**

Class	2	Classification Code	1A
UN number and proper shipping name			
UN 1066 Nitrogen, compressed			
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Labels	2.2	Hazard number	20
Packing Instruction	P200		

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IMDG

Class	2.2
UN number and proper shipping name	
UN 1066 Nitrogen, compressed	
Labels	2.2
Packing Instruction	P200
EmS	F-C

UN number and proper shipping name

UN 1066 Nitrogen, compressed

Labels	2.2
Packing Instruction	P200

Labels	2.2
Packing Instruction	P200

EmS	F-C
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IATA

Class	2.2
UN number and proper shipping name	
UN 1066 Nitrogen, compressed	
Labels	2.2
Packing Instruction	P200

UN number and proper shipping name

UN 1066 Nitrogen, compressed

Labels	2.2
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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

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an accident or an emergency. Before transporting product containers ensure that they are firmly secured. Ensure that the container valve is closed and not leaking. Ensure that the valve outlet cap nut or plug (where provided) is correctly fitted. Ensure that the valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

15 REGULATORY INFORMATION

Further national regulations

Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work
Directive 94/9/EC on equipment and protective systems intended for use in potentially explosive atmospheres (ATEX)

Directive 89/686/EEC on personal protective equipment

Council Directive 67/548/EEC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances

Directive 1999/45/EC concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations

Directive 97/23/EC on the approximation of the laws of the Member States concerning pressure equipment.

Water pollution class

Not polluting to waters according to VwVwS from 27.07.2005.

TA-Luft

Not classified according to TA-Luft.

16 OTHER INFORMATION

Ensure all national/local regulations are observed. The hazard of asphyxiation is often overlooked and must be stressed during operator training. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Advice

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. Details given in this document are believed to be correct at the time of going to press.

Further information

Linde safety advice

No. 3 Oxygen deficiency
No. 7 Safe handling of gas cylinders and cylinder bundles
No. 11 Transport of gas receptacles in vehicles

End of document