

Material Safety Data Sheet - Nitrogen

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

MSDS NR : 089 A
 PRODUCT NAME : Nitrogen
 CHEMICAL FORMULA : N₂
 COMPANY IDENTIFICATION : See heading and/or footer
 EMERGENCY PHONE NUMBER : 603-20 78 9200

2. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE / PREPARATION : Substance
 COMPONENTS / IMPURITIES : Contains on other components or impurities which will influence the classification of the product

CAS NR : 07440-37-9
 EEC NR. (FROM EINECS) : 2317839

3. PHYSICAL AND CHEMICAL PROPERTIES

MOLECULAR WEIGHT : 28
 MELTING POINT : -210 °C
 BOILING POINT : -196 °C
 CRITICAL TEMPERATURE : -147 °C
 RELATIVE DENSITY, GAS : 0.97 (air = 1)
 RELATIVE DENSITY, LIQUID : Not applicable
 VAPOUR PRESSURE 20 °C : Not applicable
 SOLUBILITY MG/L WATER : 20 mg/l
 APPEARANCE / COLOUR : Colorless gas
 ODOUR : No odour warning properties

4. FIRST AID MEASURES

INHALATION

In high concentrations may cause asphyxiation. Symptoms may included 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.

5. FIRE FIGHTING MEASURE

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

HAZARDOUS COMBUSTION PRODUCTS : None

SUITABLE EXTINGUISHING MEDIA : All know 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 : In confined space use self-contained breathing apparatus.

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.

ENVIRONMENTAL PRECAUTIONS : Try to stop release. Prevent from sewers, basements and workpits, or any place where its accumulation can be dangerous.

CLEAN UP METHODS : Ventilate area.

7. HANDLING AND STORAGE

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. Keep container below 50 °C in a well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTION : Ensure adequate ventilation.

9. HAZARDS IDENTIFICATION

HAZARDS IDENTIFICATION : Compressed gas. In high concentrations may cause

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- asphyxiation.
- 10. STABILITY AND REACTIVITY**
 STABILITY AND REACTIVITY : Stable under normal conditions.
- 11. TOXICOLOGICAL INFORMATION**
 GENERAL : Low concentrations cause rapid circulatory insufficiency. Symptoms are headache, nausea and vomiting, which may lead to unconsciousness.
- 12. ECOLOGICAL INFORMATION**
 GENERAL : When discharged in large quantities may contribute to the greenhouse effect.
 GLOBAL WARMING FACTOR : 1
- 13. DISPOSAL CONSIDERATIONS**
 GENERAL : Do not discharge into any place where accumulation could be dangerous. To atmosphere in a well ventilated place. Discharge to atmosphere in large quantities should be avoided. Contact supplier if guidance is required.
- 14. TRANSPORT INFORMATION**
 UN NR. : 1013
 CLASS / DIV. : 2.2
 ADR / RID ITEM NR. : 2, 5a
 GROUPECARD NR. : 20
 TREMCARD NR. : 11
 GROUPECARD NR. : 20g16
 LABELING ADR : Label 2 : non flammable non toxic gas.
 OTHER TRANSPORT INFORMATION :
 Avoid transport on vehicles where load space is not separated from the driver's compartment. Ensure vehicles 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 they are firmly secured and :
 - cylinder valve is closed and not leaking
 - valve outlet cap nut or plug (where provided) is correctly fitted
 - valve protection device (where provided) is correctly fitted
 - adequate ventilation
 - compliance with applicable regulations
- 15. REGULATORY INFORMATION**
 NUMBER IN ANNEX 1 OF DIR 67 / 548: Not included in Annex 1
 EC CLASSIFICATION : Proposed by the industry. Not classified as a dangerous substance
 LABELING OF CYLINDERS : Symbols:
 Road transport symbols are used and selected according to the most stringent product classification -EC or ADR.
 Label 2 : Non flammable non toxic gas.
 RISK PHRASES : RAs Asphyxiate in high concentrations
 SAFETY PHRASES : S9 Keep container in well-ventilated place.
 S23 Do not breathe the gas.
- 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. 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.