



may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.

4. FIRST AID MEASURES

First Aid

INHALATION

If high concentrations are inhaled, immediately remove to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

In case of contact, immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reuse. Treat for frostbite if necessary by gently warming affected area.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION

Ingestion is not considered a potential route of exposure.

5. FIRE-FIGHTING MEASURES

Flammable class

Extremely flammable.

Specific hazards

Exposure to fire may cause containers to rupture/explode.

Hazardous combustion products

If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition: Carbonyl fluoride, Carbon monoxide and Hydrogen fluoride.

Extinguishing Media

All known extinguishants can be used.

Fire Fighting Instructions



If possible, stop flow of product.

Move away from the container and cool with water from a protected position.

Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive re-ignition may occur. Extinguish any other fire.

Use self-contained breathing apparatus and chemically protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Evacuate area. Ensure adequate air ventilation. Eliminate ignition sources.

Environmental precautions

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

Clean up methods

Ventilate area.

7. HANDLING AND STORAGE

Storage

Segregate from oxidant gases and other oxidants in store. Keep container below 50°C in a well ventilated place.

Handling

Ensure equipment is adequately earthed. Suck back of water into the container must be prevented. Purge air from system before introducing gas. 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 away from ignition sources (including static discharges). Refer to supplier's container handling instructions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protection

Ensure adequate ventilation. Do not smoke while handling product.



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point:	-47.6 C
Melting point:	-111 C
Vapor Pressure:	11.1 bar @ 20 C
Vapor Density:	2.9 (Air=1.0)
Solubility in Water:	No reliable data available
Odor:	Sweetish. Poor warning properties at low concentrations.
Form:	Liquefied Gas.
Color:	Colorless.
Liquid Density:	1.2 (water=1)
Flammability range [vol% in air]:	9.5 to 19
Auto-ignition temperature [°C]:	Not known.
Other data:	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

10. STABILITY AND REACTIVITY

Stability and reactivity

- Can form explosive mixture with air.
- Thermal decomposition yields toxic products which can be corrosive in the presence of moisture.
- May react violently with oxidants.

11. TOXICOLOGICAL INFORMATION

Toxicity information

- No known toxicological effects from this product.

12. ECOLOGICAL INFORMATION

Ecological effects information

- Not covered by the 'Montreal Protocol'.

Global warming factor [CO₂=1]: 3800



13. DISPOSAL CONSIDERATIONS

General

Do not discharge into areas where there is a risk of forming an explosive mixture with air. Waste gas should be flared through a suitable burner with flash back arrestor. Toxic and corrosive gases formed during combustion should be scrubbed before discharge to atmosphere. Do not discharge into any place where its accumulation could be dangerous. Contact supplier if guidance is required.

14. TRANSPORT INFORMATION

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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 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 Classification:

Not included in Annex I.
Proposed by the industry.
F+; R12

EC Labelling

- Symbol(s): F+ : Extremely flammable
- R Phrase(s): R12 : Extremely flammable.
- S Phrase(s): S9 : Keep container in a well-ventilated place.
S16 : Keep away from sources of ignition - No smoking.
S33 : Take precautionary measures against static discharges.



16. OTHER INFORMATION

The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. This applies to product that conforms to the specification, unless otherwise stated. In the case of combinations and mixtures one must make sure that no new dangers can arise. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and protection of human welfare and environment.

Responsibility for MSDS: MSDS Coordinator

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Indicates updated section.

End of MSDS