Material Safety Data Sheet

1. Product and Company Identification

Product name : **Xenon**

Chemical formula : Xe

Synonyms : None known.

Company : SpecAir Specialty Gases
22 Albiston Way
Auburn, Maine 04210 USA

Telephone : 207-777-6218

Emergency : 800-535-5053

2. Composition/Information on Ingredients

Components	CAS Number	% Volume
Xenon	7440-63-3	99+%

3. Hazards Identification

Emergency Overview

CAUTION! High-pressure gas.
Can cause rapid suffocation.
May cause dizziness and drowsiness.

Potential Health Effects

Inhalation : Asphyxiant. Effects are due to lack of oxygen. Moderate concentrations may cause headache, drowsiness, dizziness, excitation, excess salivation, vomiting, and unconsciousness. Lack of oxygen can kill.

Eye contact : No harm expected.

Skin contact : No harm expected.

Ingestion : An unlikely route of exposure. This product is gas at normal temperature and pressure.

Chronic Health Hazard : No harm expected.

4. First Aid Measures

Eye contact : Flush eyes thoroughly with water. Hold the eyelids open and away from the eyeballs to ensure all surfaces are flushed thoroughly. If discomfort persists, seek medical attention.

Skin contact : Flush with water. If discomfort persists, seek medical attention.

Ingestion : An unlikely route of exposure. This product is gas at normal temperature and pressure.

Inhalation : Immediately remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may give oxygen. Call a physician immediately.

5. Fire-Fighting Measures

Suitable extinguishing media	:	Xenon cannot catch fire. Use media appropriate for surrounding fire.
Specific hazards	:	Xenon cannot catch fire. Heat of fire can build pressure in cylinder and cause it to rupture. No part of cylinder should be subjected to a temperature higher than 125 F (52 C). Xenon cylinders are equipped with a pressure relief device. (Exceptions may exist where authorized by DOT).
Fire fighting	:	Evacuate all personnel from danger area. Immediately deluge cylinders with water from maximum distance until cool; then move them away from fire area if without risk. Self-contained breathing apparatus may be required by rescue workers. On site fire fighters must comply with OSHA 29 CFR 1910.156.

6. Accidental Release Measures

Personal precautions	:	Asphyxiant. Lack of oxygen can kill. Evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Shut off leak if without risk. Ventilate area or move leaking cylinders to a well-ventilated area. Test for sufficient oxygen, especially in confined spaces, before allowing reentry.
Environmental precautions	:	None.
Methods for cleaning up	:	Prevent waste from contaminating the surrounding environment. Keep personnel away. Discard any product, residue, disposable container, or liner in an environmentally acceptable manner, in full compliance with federal, state, and local regulations. If necessary, call your local supplier for assistance.
Additional advice	:	None.

7. Handling and Storage

Handling

Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert and object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly. If valve is hard to open, discontinue use and contact your supplier.

Storage

Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 125 F (52 C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long period of time.

8. Exposure Controls / Personal Protection

Engineering measures

Use a local exhaust system, if necessary, to prevent oxygen deficiency.

Personal protective equipment

Respiratory protection	:	None required under normal use. However, air-supplied respirators are required while working in confined spaces with this product.
Hand protection	:	Wear work gloves for cylinder handling.
Eye protection	:	Safety glasses are recommended.
Skin and body protection	:	Metatarsal shoes for cylinder handling. Regardless of protective equipment, never touch live electrical parts.

9. Physical and Chemical Properties

Form	:	Gas.
Color	:	Colorless.
Odor	:	Odorless.
Molecular weight	:	131.30
Gas density	:	0.3416 lb/ft3 (5.472 kg/m3) @ 70 F (21.1 C)
Specific gravity	:	4.560 @ 70 F (21.1 C) @ 1 atm (air = 1)
Boiling point	:	-162.62 F (-108.12 C) @ 1 atm
Melting point	:	-169.22 F (-111.78 C) @ 1 atm
Water solubility	:	Negligible.

10. Stability and Reactivity

Stability	:	Stable under normal conditions.
Conditions to avoid	:	None known.
Materials to avoid	:	None known. Xenon is chemically unreactive, but not completely inert.
Hazardous decomposition products	:	None known.

11. Toxicological Information

Acute Health Hazard

Ingestion	:	Not available.
Inhalation	:	Not available.
Skin	:	Not available.

12. Ecological Information

No adverse ecological effects expected.

13. Disposal Considerations

Waste from residues / unused products	:	Do not attempt to dispose of residual or unused quantities. Return cylinder to supplier. For emergency disposal, secure cylinder in a well-ventilated area or outdoors; then slowly discharge gas to the atmosphere.
Contaminated packaging	:	Return cylinder to supplier.

14. Transport Information

DOT (US only)

Proper shipping name	:	Xenon
Class	:	2.2
UN/ID No.	:	UN2036
Labeling	:	Non-Flammable Gas

Further information

Cylinders should be transported in a secure upright position in a well ventilated truck.
Shipment of compressed gas cylinders that have been filled without the owner's consent is a violation of federal law [49 CFR 173.301(b)].

15. Regulatory Information

OSHA Process Safety (29 CFR 1910.119) Hazard Class(es)

This product is not listed in Appendix A as a highly hazardous chemical.

TCSA

Material is listed in TSCA inventory.

SARA Sections 302/304 (40 CFR 355)

Threshold Planning Quantity (TPQ): None
Extremely Hazardous Substances (EHS) RQ: None

SARA Sections 311/312

Immediate: No
Delayed: No
Pressure: Yes
Reactivity: No
Fire: No

SARA Section 313 (40 CFR 372.65)

This product does not require reporting under Section 313.

CERCLA (40 CFR Parts 117 and 302)

Reportable Quantity (RQ): None