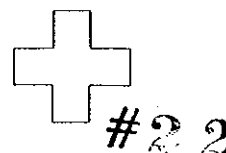


MATERIAL SAFETY DATA SHEET

An explanation of the terms used herein may be found in OSHA 29 CFR 1910.1200, available from OSHA regional or area offices.
(Essentially similar to US Department of Labor Form OMB No. 1218-0072)
Do Not Duplicate This Form. Request an Original.



I. PRODUCT IDENTIFICATION

PRODUCT	A-1025 Helium Mixture		
CHEMICAL NAME	Argon-Helium-Carbon Dioxide Mixture	SYNONYMS	Not applicable
FORMULA	Ar, CO ₂ and He	CHEMICAL FAMILY	Not applicable
		MOLECULAR WEIGHT	Not applicable
TRADE NAME	A-1025 Helium Mixture (This product is intended for electric welding use.)		

II. HAZARDOUS INGREDIENTS

This section covers the materials from which this product is manufactured. The fumes and gases produced during cutting with the normal use of this product are covered by Section VI. The term "hazardous" should be interpreted as a term required and defined in OSHA 29 CFR 1910.1200 and does not necessarily imply the existence of any hazard.

MATERIAL (CAS NO.)	Wt (%)	1992-1993 ACGIH TLV-TWA (OSHA-PEL)	
Helium (7440-59-7)	90	Simple asphyxiant	(None currently established)
Argon (7440-37-1)	7.5	Simple asphyxiant	(None currently established)
Carbon Dioxide (124-38-9)	2.5	5000 ppm	(5,000 ppm)

III. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	Not applicable	FREEZING POINT	Not applicable
SPECIFIC GRAVITY (H₂O = 1)	Gas	VAPOR PRESSURE AT 20°C.	Gas
VAPOR DENSITY (air = 1)	0.266	SOLUBILITY IN WATER, % by wt.	Negligible
PERCENT VOLATILES BY VOLUME	100	EVAPORATION RATE (Butyl acetate = 1)	Not applicable

APPEARANCE AND ODOR Colorless, odorless gas at normal temperature and pressure.

EMERGENCY PHONE NUMBER

IN CASE OF EMERGENCIES involving this material, further information is available at all times:

Call CHEMTREC 800-424-9300 only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals. For routine information contact your supplier.

This product is subject to the Pennsylvania Worker and Community Right-To-Know Act (35 P.S. Sections 7301-7320).

Praxair requests the users of this product to study this Material Safety Data Sheet (MSDS) and become aware of product hazards and safety information. To promote safe use of this product a user should (1) notify its employees, agents and contractors of the information on this MSDS and any product hazards and safety information, (2) furnish this same information to each of its customers for the product, and (3) request such customers to notify their employees and customers for the product of the same product hazards and safety information.

Revised

PRAXAIR, INC.

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V. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method)	Not applicable	AUTOIGNITION TEMPERATURE	Not applicable
FLAMMABLE LIMITS IN AIR, % by volume	LOWER	Not applicable	UPPER No applicable

EXTINGUISHING MEDIA: Gas mixture cannot catch fire. Use media appropriate for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate all personnel from danger area. Immediately cool cylinders with water spray from maximum distance until cool then move containers away from fire area if without risk. Shut off leak if without risk.

Arcs and sparks can ignite combustibles. Refer to American National Standard Z49.1 "Safety in Welding and Cutting," for fire prevention information during the use of welding and allied procedures.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Gas mixture cannot catch fire. Container may rupture due to heat of fire. No part of a container should be subjected to a temperature higher than 52°C (approximately 125°F). Most containers are provided with a pressure-relief device designed to vent the contents when they are exposed to elevated temperature.

VI. REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID: See Section IX.
UNSTABLE	STABLE	
	X	

INCOMPATIBILITY (materials to avoid): None currently known.

HAZARDOUS DECOMPOSITION PRODUCTS: The arc process may form gaseous reaction products such as carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc. See Section IV. Other decomposition products of normal operation originate from the volatilization, reaction or oxidation of the material being worked.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID: None currently known.
May Occur	Will not Occur	
	X	

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: This gas mixture is an asphyxiant. Evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Shut off cylinder if without risk. Ventilate area of leak or move cylinder to well-ventilated area. Test area, especially confined areas, for sufficient oxygen content prior to permitting re-entry of personnel.

WASTE DISPOSAL METHOD: Slowly release into atmosphere. Discard any product, residue, disposable container or liner in an environmentally acceptable manner in full compliance with federal, state and local regulations.