Revised date 01.08.2024

MATERIAL SAFETY DATA SHEET
HCFC 124

CHEMICAL PRODUCT

Corporate MSDS Number	: TAB-002003
Composition	: HCFC 124 (100%)
Formula	: $CHClFCF_3$
Chemical Name	: 2-Chloro-1,1,1,2-Tetrafluotoethane
CAS#	: 75-88-7
UN#	: 1021
HS Code	: 290379
Hazard	: 2.2

COMPANY IDENTIFICATION

TABRIGAS Egypt
Port Said Free Zone area – Egypt
Sunday – Thursday (9:00 – 17:00)
00 202 2734 22 77 / 78 / 79
info@tabrigas.com
www.tabrigas.com

PRODUCT USE

Refrigerant

TRADE NAMES & SYNONYMS

2-Chloro-1,1,1,2-Tetrafluotoethane
HCFC-124

HAZARDS IDENTIFICATION

Emergency Overview

Misuse or intentional inhalation abuse may lead to death without warning.
Vapors are heavier than air and can cause suffocation by reducing oxygen available for breathing.
Rapid evaporation of the liquid may cause frostbite

Potential Health Effects

Skin

Contact with liquid or refrigerated gas can cause cold burns and frostbite.

Eyes

Contact with liquid or refrigerated gas can cause cold burns and frostbite.

Inhalation

Misuse or intentional inhalation abuse may cause death without warning symptoms, due to cardiac effects. Other symptoms potentially related to misuse or inhalation abuse are Anesthetic effects, Light-headedness, dizziness, confusion, in coordination, drowsiness, or unconsciousness, irregular heartbeat with a strange sensation in the chest, heart thumping, apprehension, feeling of fainting, dizziness or weakness. Vapors are heavier than air and can cause suffocation by reducing oxygen available for breathing.

Carcinogenicity

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

FIRST AID MEASURES

Skin Contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Take off all contaminated clothing immediately. Consult a physician. Wash contaminated clothing before re-use. Treat for frostbite, if necessary, by gently warming the affected area.

Eye Contact

In case of contact, immediately flush your eyes with plenty of water for at least 15 minutes. Consult a physician if necessary.

Inhalation

Remove from exposure, lie down. Move to fresh air. Keep patient warm and at rest. Artificial respiration and/or oxygen may be necessary. Consult a physician.

Ingestion

Is not considered a potential route of exposure.

Notes to physician

Because of possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, that may be used in situations of emergency life support should be used with special caution.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point	: does not flash
Lower explosion limit	: Method: None per ASTM E681
Upper explosion limit	: Method: None per ASTM E681

Fire and Explosion Hazard: The product is not flammable. Cylinders are equipped with pressure and temperature relief devices, but may still rupture under fire conditions. Decomposition may occur.

Suitable extinguishing media : Use extinguishing measures that are appropriate for local Circumstances and the surrounding environment.

Firefighting Instructions : Cool containers/tanks with water spray. A self-contained breathing apparatus (SCBA) is required if containers rupture and contents are released under fire conditions.
Water runoff should be contained and neutralized before release.

ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel)

Ventilate areas, especially low or enclosed places where heavy vapors might collect.

Accidental Release Measures

Avoid open flames and high temperatures. A self-contained breathing apparatus (SCBA) is required if a large release occurs.

HANDLING AND STORAGE

Handling (Personnel)

Avoid breathing vapors or mist. Avoid contact with skin, eyes, and clothing. Provide sufficient air exchange and/or exhaust in work rooms.

Storage

Valve protection caps and valve cutlet threaded plugs must remain in place unless the container is secured with a valve outlet piped to the use point.
Do not drag, slide, or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure-reducing regulator when connecting the cylinder to lower-pressure (>3000 PSIG) piping or systems. Never attempt to lift the cylinder by its cap. Use a check valve or trap in the discharge line to prevent

hazardous backflow into the cylinder. Cylinders should be stored upright and firmly secured to prevent falling or being knocked over.
Separate full containers from empty containers. Keep at a temperature not exceeding 52°C. Do not store near combustible materials. Avoid areas where salt or other corrosive materials are present.

Storage temperature

< 52 °C (< 126 °F)

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use sufficient ventilation to keep employee exposure below recommended limits. Local exhaust should be used when large amounts are released.
Mechanical ventilation should be used in low or enclosed places.

Personal Protective Equipment

Respiratory protection

Under normal manufacturing conditions, no respiratory protection is required when using this Product.

Hand protection

Additional protection: Impervious gloves

Eye protection

Wear safety glasses with side shields. Additionally, wear a face shield where the possibility exists of face contact due to splashing, spraying, or airborne contact with this material.

Protective measures

A self-contained breathing apparatus (SCBA) is required if a large release occurs.

Exposure Guidelines

Exposure Limit Values

1-Chloro-1, 2, 2, 2-tetrafluoroethane

AEL *	(DUPONT)	1,000 ppm	8 & 12 hr. TWA

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES

Form	: Liquefied gas

Color	: colorless
Odor	: slight, ether-like
Freezing point	: -199 °C (-326 °F)
Boiling point	: -12.0 °C (10.4 °F) @ 1,013 hPa
% Volatile	: 100 %
Vapor Pressure	: 3,827 hPa @ 25 °C (77 °F)
Density	: 1.355 g/cm3 @ 25 °C (77 °F) (as liquid)
Specific gravity	: 1.36 @ 25 °C (77 °F)
Water solubility	: 1.45 g/l @ 25 °C (77 °F) @ 1,013 hPa

STABILITY AND REACTIVITY

Stability

Stable at normal temperatures and storage conditions.

Conditions to Avoid

Avoid open flames and high temperatures.

Incompatibility

Alkali metals Alkaline earth metals, Powdered metals, Powdered metal salts

Hazardous decomposition products

Decomposition products are hazardous., This material can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming hydrochloric and hydrofluoric acids, and possibly carbonyl halides., These materials are toxic and irritating., Avoid contact with decomposition products

Hazardous reactions

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

1-Chloro-1, 2, 2, 2-tetrafluoromethane

Dermal	: not applicable
Oral	: not applicable
Inhalation 4 h LC50	: > 230000 ppm, rat Anesthetic Effects Central nervous system effects
Inhalation	: Dog Cardiac sensitization
Skin irritation	: No skin irritation, not tested on animals Not expected to cause skin irritation based on an expert review of the properties of the substance.

Eye irritation	: No eye irritation, not tested on animals Not expected to cause eye irritation based on expert review of the properties of the substance.
Skin sensitization	: Does not cause skin sensitization. Not tested on animals Not expected to cause sensitization based on expert review of the properties of the substance. There are no reports of human respiratory sensitization.
Repeated dose toxicity	: Inhalation Multiple Species No toxicologically significant effects were found.
Carcinogenicity	: Animal testing did not show any carcinogenic effects.
Mutagenicity	: Did not cause genetic damage in animals. Did not cause genetic damage in cultured mammalian cells. Did not cause genetic damage in cultured bacterial cells.
Teratogenicity	: Animal testing showed no developmental toxicity.
Further information	: Cardiac sensitization threshold limit: 140000 mg/m3

ECOLOGICAL INFORMATION

Additional ecological information:

Cardiac sensitization threshold limit: 140000 mg/m3

DISPOSAL CONSIDERATIONS

Waste Disposal:

Can be used after re-conditioning. Recover by distillation or remove to a permitted waste disposal facility. Comply with applicable Federal, State/Provincial, and Local Regulations.

Environmental Hazards:

Empty pressure vessels should be returned to the supplier.

TRANSPORTATION INFORMATION

TDG_ROAD	UN number	: 1021
	Proper shipping name	: 1-Chloro-1, 2, 2, 2-tetrafluoroethane
	Class	: 2.2
	Labeling No.	: 2.2
TDG_RAIL	UN number	: 1021
	Proper shipping name	: 1-Chloro-1, 2, 2, 2-tetrafluoroethane
	Class	: 2.2

	Labeling No.	: 2.2
IATA_C	UN number	: 1021
	Proper shipping name	: 1-Chloro-1, 2, 2, 2-tetrafluoroethane
	Class	: 2.2
	Labeling No.	: 2.2
IMDG	UN number	: 1021
	Proper shipping name	: 1-Chloro-1, 2, 2, 2-tetrafluoroethane
	Class	: 2.2
	Labeling No.	: 2.2

REGULATORY INFORMATION

DSL Status:

On the inventory, or in compliance with the inventory

WHMIS Classification:

A - Compressed Gas

End of MSDS

(Version August 2024)


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150th anniversary
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