

# MATERIAL SAFETY DATA SHEET

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## SECTION I - CHEMICAL INFORMATION

HMIS: 1-0-1

Trade Name: R22

Chemical Name: Chlorodifluoromethane

Distributor/Manufacturer: ZHEJIANG BINGER NEW TYPE REFRIGERANT CO., LTD.

Address & Phone: No.28 Zesheng Road, Nianli Industrial Functional Zone,  
Qujiang Zone, Quzhou City, Zhejiang Province, China.

Emergency Phone #: +0086-(0)570- 2829813

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## SECTION II - HAZARDOUS INGREDIENTS

Ingredients	CAS #	TLV	PEL	UNIT
Chlorodifluoromethane	75-45-6	100%		

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## SECTION III - FIRE AND EXPLOSION HAZARD DATA

Flash Point - Will not burn      Flammable Limits      Autoignition - 632 C (1170 F)

Fire and Explosion Hazards - Cylinders may rupture under fire conditions.  
Decomposition may occur.

Extinguishing Media - As appropriate for combustibles in area.

Special Fire Fighting Procedures - Cool cylinders with water spray. Self-contained breathing apparatus (SCBA) may be required if cylinders rupture or release under fire conditions.

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## SECTION IV - ACCIDENTAL RELEASE MEASURES

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

Accidental Release Measures: Ventilate area, especially low or enclosed places where heavy vapors might collect. Remove open flames. Use self-contained breathing apparatus (SCBA) if large spill or leak occurs. Evacuate area. Comply with Federal, State and local regulations on reporting releases.

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## SECTION V - HAZARDS IDENTIFICATION

Potential Health Effects - Inhalation of high concentrations of vapor is harmful and

may cause heart irregularities, unconsciousness or death. Intentional misuse or deliberate inhalation may cause death without warning. Vapor reduces oxygen available for breathing and is heavier than air. Liquid contact can cause frostbite.

Human Health Effects - Contact with the liquid may cause frostbite. Overexposure by inhalation may include nonspecific discomfort, such as nausea, headache, or weakness, or temporary nervous system depression with anesthetic effects such as dizziness, headache, confusion, incoordination, and loss of consciousness. Higher exposures may lead to temporary alteration of the heart's electrical activity with irregular pulse, palpitations, or inadequate circulation. Fatality may occur from gross overexposure.

Individuals with preexisting diseases of the central nervous or cardiovascular system may have increased susceptibility to the toxicity of excessive exposures.

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

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## SECTION VI - 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 cases of contact, immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician. Treat for frostbite if necessary by gently warming affected area. Wash contaminated clothing before reuse.

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.

Notes to Physicians - Because of possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, should be used with special caution only in situations of emergency life support.

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## SECTION VII - STORAGE AND HANDLING

Storage - Keep containers in cool clean and dry area. Do not heat above 52 deg C (125 deg F)

Handling - Avoid breathing high concentrations of vapors and avoid liquid contact with skin or eyes. Use in well ventilated area away from possible ignition sources. Use with sufficient ventilation to keep employee exposure below recommended limits.

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#### SECTION VIII - STABILITY AND REACTIVITY

Instability - Material is stable. However, avoid open flames and high temperatures.

Incompatibility - Incompatible with alkali or alkaline earth metals - powdered Al, An, Be, etc.

Decomposition - This material can be decomposed by high temperatures.

Polymerization - Polymerization will not occur.

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#### SECTION IX - PHYSICAL DATA

% Volatile	100 WT %
Solubility in Water	0.3 WT % at 25 deg C (77 deg F)
Odor	Slight ethereal
Form	Liquefied gas
Color	Clear, colorless
Boiling Point	-40.8 deg C (-41.4 deg F)
Vapor Pressure	151 psig at 25 deg C (77 deg F)
Vapor Density	3.03 at 25 deg C (Air = 1)
Liquid Density	1.194 g/cm(3) at 25 deg C (77 deg F)

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#### SECTION X -TRANSPORTATION INFORMATION

Shipping Information :

Shipping Containers

DOT/IMO

Proper Shipping Name Chlorodifluoromethane

Hazard Class 2.2

UN No. 1018

DOT/I MO Label NON-FLAMMABLE GAS