



Material Safety Data Sheet

Carbon Dioxide extinguisher
MSDS NO.: AJT20221115913E

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Carbon Dioxide extinguisher

Product Use: Fire extinguisher

Supplier Information

Company Name: ZHEJIANG ORIENTX FIRE SAFETY EQUIPMENT CO., LTD

Address: WUCHEYAN, HUANGJIABU, YUYAO CITY, ZHEJIANG PROVINCE, 315466, CHINA

Tel: 86 574 62003911

Fax: 86 574 62003934

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2. HAZARDS IDENTIFICATION

Hazard Classification

Gas under pressure – liquefied gas

Simple Asphyxiant

Label Elements

Hazard Symbols



Signal Word: Warning

Hazard Statements

Contents under pressure; may explode if heated.

May displace oxygen and cause rapid suffocation.

Precautionary Statements

Prevention

Do not enter confined space unless adequately ventilated.

In case of inadequate ventilation wear respiratory protection.

Response

None

Storage

Keep container tightly closed.

Protect from sunlight and store in well-ventilated place.



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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation: Substance

Ingredients Name	Content/%	CAS No.	EINECS No.	EU Classification
Barrel material	-	-	-	-
Carbon Dioxide	>99.8	124-38-9	204-696-9	Non Flammable Gas

Note:

- 1: This MSDS is prepared mainly according to Carbon Dioxide inside the extinguisher.
- 2: This MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of the product.

4. FIRST AID MEASURES

Eyes

Immediately flood the eye with plenty of water or warm water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin

Gently warm affected areas. Obtain medical attention if blistering occurs or redness persists.

Ingestion

Ingestion is not considered a potential route of exposure.

Inhalation

Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

Advice to Physicians

In case of frostbite, place the frostbitten part in warm water. If warm water is not available or impractical to use, wrap the affected parts gently in blankets. DO NOT USE HOT WATER.

5. FIRE FIGHTING MEASURES

Extinguishing Media

Carbon Dioxide is used as an extinguishing agent and therefore is not a problem when trying to control a blaze. Use extinguishing agent appropriate to other materials involved. Keep containers and surroundings cool with water spray as containers may rupture or burst in the heat of a fire.

Unusual Fire and Explosion Hazards



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Containers may explode in heat of fire.

Protective Equipment for Fire-Fighting

Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Wear full protective clothing and self-contained breathing apparatus. Remove leaking cylinder to a safe place. Ventilate the area. Vapors can accumulate in low areas. Leaks inside confined spaces may cause suffocation as oxygen is displaced and should not be entered without a self-contained breathing apparatus.

7. HANDLING AND STORAGE

Cylinders should be properly stored and secured to prevent falling or being knocked over. Do not drag, slide or roll cylinders. Do not drop cylinders or permit them to strike against each other. Never apply flame or localized heat directly to any part of the cylinder. Store away from sources of heat or ignition.

Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Occupational Exposure Standards

Carbon Dioxide

ACGIH TLV: 5000 ppm (9000 mg/m³) STEL: 30,000 ppm (54,000 mg/m³) OSHA PEL: 5000 ppm (9000 mg/m³) STEL: 30,000 ppm (54,000 mg/m³)

Engineering Control Measures

Use with adequate ventilation. There should be local procedures for the selection, training, inspection and maintenance of this equipment. When used in large volumes or odor becomes apparent, use local exhaust ventilation.

Respiratory Protection

Not normally required under conditions of use as a portable fire extinguisher. In oxygen deficient atmospheres, use a self contained breathing apparatus, as an air purifying respirator will not provide protection.

Hand Protection

Wear rubber gloves. Avoid contact with skin.

Eye Protection

Chemical goggles or safety glasses with side shields. Avoid contact with eyes.

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES



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Appearance

Physical State	Liquefied gas under pressure
Color	Colorless
Odor	Odorless to Slightly Acidic
Odor Threshold	No data available
pH	Not applicable
Specific Gravity	1.522
Boiling Range/Point (°C/F)	-56.6oC/-69.8 °F
Melting Point (°C/F)	-78.5oC/109.2 °F (sublimation)
Flash Point (PMCC) (°C/F)	Not flammable
Vapor Pressure	838 psig @70oF and 1 atmosphere
Evaporation Rate (BuAc=1)	Not applicable
Solubility in Water	Soluble
Vapor Density (Air = 1)	Heavier than air.
VOC (%)	Not applicable
Partition coefficient (n-octanol/water)	No data available
Viscosity	Not applicable
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Upper explosive limit	Not explosive
Lower explosive limit	Not explosive
Flammability (solid, gas)	Not flammable

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to Avoid

- Heat - High temperatures - Exposure to direct sunlight

Materials to Avoid

- alkali or alkaline earth metal (ex. aluminum, zinc, etc.) - Strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Simple asphyxiant. LCLo (inhalation in humans): 100,000ppm/minute.

Chronic Toxicity/Carcinogenicity

This product is not expected to cause long term adverse health effects.



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Genotoxicity

This product is not expected to cause any mutagenic effects.

Reproductive/Developmental Toxicity

This product is not expected to cause adverse reproductive effects.

12. ECOLOGICAL INFORMATION

Mobility

Carbon dioxide occurs naturally in the atmosphere.

Persistence/Degradability

Carbon dioxide occurs naturally in the atmosphere.

Bio-accumulation

Carbon dioxide occurs naturally in the atmosphere.

Ecotoxicity

Aquatic Toxicity: 100-200 mg/l/no time specified/various organisms/fresh water

Waterfowl toxicity: 5-8%, no effect

13. DISPOSAL CONSIDERATIONS

Dispose of container in accordance with all applicable local and national regulations. Do not cut, puncture or weld on or near to the container. If spilled, contents will vaporize to the atmosphere.

14. TRANSPORT INFORMATION

UN Proper Shipping Name	Fire extinguishers
UN Class	(2.2)
UN Number	UN1044
UN Packaging Group	Not applicable
Packing group	--
Marine pollution	no

15. REGULATORY INFORMATION

EU Label Information

Classification and labeling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments.

EU Hazard Symbol and Indication of Danger.

Non Flammable Gas



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R phrases

None

S phrases

S9 Keep container in a well ventilated place.

US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS

TSCA Listing

This product contains ingredients that are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Substance Inventory.

EINECS Listing

All ingredients in this product are listed on the European Inventory of Existing Commercial Chemical Substances (EINECS) or the European List of New Chemical Substances (ELINCS) or are exempt from listing.

DSL/NDSL (Canadian) Listing

All ingredients in this product are listed on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL) or are exempt from listing.

WHMIS Classification

A

This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

16. OTHER INFORMATION

Risk phrases in section 3:

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This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. We make no representation as to completeness or accuracy. In no event we shall be responsible for damages of any nature whatsoever resulting from the use or reliance upon the information and recommendations.

* * * END OF MSDS * * *