

Portable Dry Powder Fire Extinguisher Safety Data Sheet (SDS)

According to EU Regulation 2020/878 - Dangerous Goods

DANGEROUS GOODS - UN1044, Class 2.2

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier: Portable Dry Powder Fire Extinguisher

1.2 Relevant identified uses: Fire extinguishing agent for Class A, B, and C fires.

1.3 Details of the supplier: CID Trading LTD, Friden House, Unit 1 Clayton

Wood Bank, Horsforth, Leeds, LS16 6QZ Tel: 0113 201 1340

Email: sales@cidgroup.co.uk

1.4 Unique Formula Identifier (UFI): /

SECTION 2: Hazards identification

2.1 Classification: According to Regulation (EC) No 1272/2008 (CLP) and ADR/RID/IMDG/IATA regulations for transport.

2.2 Label elements:

UN 1044

FIRE EXTINGUISHERS

CLASS 2.2

Nitrogen (as propellant): Compressed gas; may cause asphyxiation.

When in contact with out gushing fire extinguishing agent (powder) irritation may occur in open sores as well as eyes and throat.

The fire extinguisher is at 14 bars super pressure. If subjected to high temperatures (over 60°C) the safety device might release (23 bar)

Warning: Contains crystalline silica which may cause respiratory irritation upon prolonged exposure to dust. Pressurized container - may burst if heated.

SECTION 3: Composition/information on ingredients

Chemical characterization: Mixture of inorganic salts and inert propellant gas.

Component	CAS Number	Concentration (%)
Ammonium phosphate salts	7726-76-1	40-44%
Ammonium sulfate salts	783-20-2	50-54%
Nitrogen (compressed gas)	7727-37-9	As propellant

TRANSPORT CLASSIFICATION

UN Number	UN 1044
Proper Shipping Name	FIRE EXTINGUISHERS
Hazard Class	2.2 (Non-flammable, non-toxic gas)
Packing Group	Not applicable
Environmental hazards	Not applicable

Transport in bulk

Not applicable

SECTION 4: First aid measures

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen.

Skin contact: Wash thoroughly with soap and water.

Eye contact: Rinse cautiously with water for several minutes.

Ingestion: Rinse mouth. Do NOT induce vomiting.

SECTION 5: Firefighting measures

Extinguishing media: This product is itself an extinguishing agent.

Special hazards: Decomposition may produce hazardous gases (ammonia, nitrogen oxides). Container may rupture under heat pressure.

Protection for firefighters: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

Personal precautions: Avoid generating dust. Use personal protective equipment as outlined in Section 8.

Environmental precautions: Prevent product from entering drains, water courses, or soil.

Methods and material for containment and cleaning up: Sweep up or vacuum with a dust collector. Avoid actions that generate dust. Place in a suitable container for disposal.

SECTION 7: Handling and storage

Precautions for safe handling: Handle in a well-ventilated area. Minimize dust generation and accumulation. Use appropriate technical controls. Do not puncture or incinerate the container.

Conditions for safe storage: Store in a cool, dry, well-ventilated place. Keep container tightly closed. Protect from moisture, direct sunlight, and heat sources. Do not expose to temperatures exceeding 50°C. Incompatible with strong acids and strong oxidizers.

SECTION 8: Exposure controls/personal protection

Control parameters: Follow applicable Occupational Exposure Limit (OEL) for dust and nitrogen.

Exposure controls:

Appropriate engineering controls: Use local exhaust ventilation to control dust levels.

Personal protective equipment:

- **Respiratory protection:** Use dust respirator if ventilation is insufficient or dust levels are high.
- **Hand protection:** Protective gloves.
- **Eye protection:** Safety glasses or goggles.
- **Skin and body protection:** Wear protective work clothing.

SECTION 9: Physical and chemical properties

Appearance	Fine powder in a pressurized cylinder
Odor	Odorless
pH	Not applicable (solid mixture in pressurized system)
Melting point/freezing point	Decomposes before melting
Flammability	Non-flammable
Vapor pressure	[Value related to nitrogen pressure at specific temperature]
Relative density	~1.0 - 1.2 g/cm ³ (for powder)
Solubility	Partially soluble in water
Decomposition temperature	> 150°C (varies)

Other safety characteristics: Fine particulate solid. Dust clouds may be explosive in high concentrations. Pressurized container: Risk of bursting under heat.

SECTION 10: Stability and reactivity

Reactivity: Stable under recommended storage and handling conditions.

Chemical stability: Stable.

Possibility of hazardous reactions: Under normal conditions of use, hazardous reactions will not occur.

Conditions to avoid: Moisture, high temperatures, strong acids, strong oxidizers.

Incompatible materials: Strong acids, strong oxidizing agents.

Hazardous decomposition products: Ammonia, nitrogen oxides (NO_x), and phosphorus oxides under thermal decomposition or fire conditions.

SECTION 11: Toxicological information

Acute toxicity: Based on available data, not acutely toxic.

Skin corrosion/irritation: May cause mechanical irritation.

Serious eye damage/irritation: May cause mechanical irritation.

Respiratory or skin sensitization: Not expected.

Germ cell mutagenicity: Not expected.

Carcinogenicity: Not classified.

Reproductive toxicity: Not expected.

Specific target organ toxicity - single exposure: Not expected. (For Nitrogen: High concentrations may cause asphyxiation).

Specific target organ toxicity - repeated exposure: Prolonged and repeated inhalation of dust may cause respiratory tract irritation.

Aspiration hazard: Not expected.

SECTION 12: Ecological information

Toxicity: Expected to have low toxicity to aquatic organisms.

Persistence and degradability: Not readily biodegradable.

Bioaccumulative potential: Low potential for bioaccumulation.

Mobility in soil: May be mobile if dissolved.

Results of PBT and vPvB assessment: Not classified as PBT or vPvB.

Endocrine disrupting properties: No known endocrine disrupting properties.

Other adverse effects: Eutrophication of water bodies is possible due to phosphate and ammonium content.

SECTION 13: Disposal considerations

Waste treatment methods:

Product: Dispose of in accordance with all applicable local, regional, national, and international regulations. Reuse or recycling is preferred. For used extinguishers, contact specialized waste management companies. Release nitrogen in a safe, well-ventilated area before disposal.

Containers: Dispose of as for product. Do not reuse containers unless properly cleaned and tested for pressure applications.

SECTION 14: Transport information (Detailed)

14.1 UN number: UN 1044 [citation:1]

14.2 UN proper shipping name: FIRE EXTINGUISHERS

14.3 Transport hazard class(es): 2.2 - Non-flammable, non-toxic gas

[citation:1][citation:6]

14.4 Packing group: Not applicable

14.5 Environmental hazards: Not applicable

14.6 Special precautions for user:

- Protect from sunlight and heat
- Do not drop or damage the cylinder
- Securely stow during transport to prevent movement
- Do not transport with incompatible materials

14.7 Transport in bulk according to Annex II of MARPOL and the IBC

Code: Not applicable

REGULATORY INFORMATION:

In the United States, fire extinguishers that comply with 49 CFR § 173.309 must be described as "UN 1044, Fire extinguishers containing compressed or liquefied gas, 2.2" and are excepted from certain shipping paper, labeling, and placarding requirements [citation:1].

Fire extinguishers assigned UN1044 that qualify as Limited Quantity surface material are mailable when properly packaged [citation:6].

SECTION 16: Other information

This SDS has been prepared by a competent person who has received appropriate training.

Revision date: 2025-11-19

Revision statement: Updated with dangerous goods transport information

Disclaimer: The information contained herein is provided in good faith and believed to be accurate as of the date hereof. However, no warranty, express or implied, is given. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety and health measures.

Abbreviations: UN - United Nations, CFR - Code of Federal Regulations, DOT - Department of Transportation.