

MATERIAL SAFETY DATA SHEET

1. Identification of the Substance

1.1 Identification of the preparation

Product Name: "ROYAL Fire Extinguisher ABC Dry Chemical Powder"
"Fire Extinguisher Powder ABC Multipurpose"
Chemical Name: N/A - This is a mixture/preparation
CAS No.: N/A - This is a mixture/preparation
Chemical Formula: N/A - This is a mixture/preparation
EINECS Number: N/A - This is a mixture/preparation

1.2 Use of the preparation

The intended or recommended use of this preparation is as a fire extinguishing agent.

1.3 Company identification

Manufacturer/Supplier: FRESICO CHEMICAL
Address: BINHAI DEVELOPMENT ZONE, P.R. CHINA
Prepared by: Safety and Health Department
Date of issue: May, 2009

1.4 Emergency phone:

CHEMTREC 800-424-9300 or 703-527-3887

2. Composition/Information on Ingredients

2.1 Ingredient Name: Monoammonium phosphate
Chemical Formula: $\text{NH}_4\text{H}_2\text{PO}_4$
CAS No.: 7722-76-1
EINECS Number: 231-764-5
Concentration, Wt%: 50-80%
Hazard Identification: See Heading 3

Fire extinguishers contain compressed air to ensure a high velocity discharge of product.

- (a) EINECS does not include most naturally occurring raw materials. See 67/548/EEC, article 13; 79/831/EEC and 81/437/EEC
- (b) EINECS does not include synthetic polymers (these are registered in EINECS under their building blocks, monomers.) See: 67-548/EEC, article 13; 79/831/EEC and 81/437/EEC.

NOTE: Unless a component presents a severe hazard, it does not need to be considered in the MSDS if the concentration is less than 1% (According to Directive 1999/45/EC.)

3. Hazards Identification

For Humans:

Product:

Components:

Monoammonium Phosphate:

EU Classification: Harmful

R Phrases: 22 Harmful if swallowed

36/37/38 Irritating to eyes, respiratory system and skin

S Phrases:	26	In case of contact with eyes, rinse immediately with water & seek medical help
	36	Wear suitable protective clothing
Ammonium sulfate:		
EU Classification:		Irritant
R Phrases:	36/37/38	Irritating to eyes, respiratory system and skin
S Phrases:	26	In case of contact with eyes, rinse immediately with water & seek medical help
	36	Wear suitable protective clothing

Limit Values for Exposure:

Nuisance dust limit:

OSHA TWA: 15 mg/m³

ACGIH TLV-TWA: 10 mg/m³

Neither this preparation nor the substances contained in it have been listed as carcinogenic by National Toxicology Program, I.A.R.C. or OSHA.

Silica Gel is a Synthetic Amorphous Silica which is considered a nuisance dust and no medical conditions are abnormally aggravated by this product.

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Signs & Symptoms:

Acute Exposure:

Eye Contact: Mildly irritating for short periods of time.

Skin Contact: May be mildly irritating.

Inhalation: Treat as a mineral dust. Irritant to the respiratory tract. Transient cough, and shortness of breath may occur.

Ingestion: Not an expected route of entry.

Chronic Overexposure: Inhalation: Chronic fibrosis of the lung, pneumoconiosis.

Medical conditions generally aggravated by exposure: None known.

For Environment: No data available.

4. First Aid Measures

Eye Contact: Wash with water for a minimum of 15 minutes. If irritation persists seek medical attention.

Skin Contact: Wash affected area with soap and water. If irritation persists seek medical attention.

Inhalation: Remove from exposure. If irritation persists seek medical attention.

Ingestion: If patient is conscious, give large amounts of water and induce vomiting. Seek medical help.

5. Firefighting Measures

This preparation is an extinguishing media.

There are NO extinguishing media which must not be used for safety reasons.

NO special protective equipment is needed for firefighters.

6. Accidental Release Measures

For personal protection: Prevent skin and eye contact, see Heading 8.

Clean up: Sweep up and recover for use or place in closed container for disposal, see Heading 13.

NO harm to the environment is expected from an accidental release of this preparation.

7. Handling and Storage

7.1 Handling

Care should be taken in handling all chemical substances and preparations.

See incompatibility information in Heading 10.

7.2 Storage

NO special conditions are needed for safe storage.

See incompatibility information in Heading 10.

Store in original container or Flag Fire fire extinguisher. Keep tightly closed until used.

There is minimal danger to the environment from a storage release.

7.3 Specific use

The intended or recommended use of this preparation is as a fire extinguishing agent.

8. Exposure Controls/Personal Protection

8.1 Exposure limit values

Nuisance dust limit:

OSHA TWA: 15 mg/m³

ACGIH TLV-TWA: 10 mg/m³

8.2 Exposure controls

8.2.1 Occupational exposure controls

8.2.1.1 Respiratory protection

Dust mask where dustiness is prevalent, or TLV is exceeded. Use mechanical filter respirator if exposure is prolonged.

8.2.1.2 Hand protection

None normally needed. Use chemical resistant gloves when handling the preparation.

8.2.1.3 Eye protection

Use safety glasses with side shields or safety goggles as mechanical barrier for prolonged exposure.

8.2.1.4 Skin protection

No special equipment is needed.

8.2.2 Environmental exposure controls

No special controls are needed.

9. Physical and Chemical Properties

9.1 General information

Appearance: Yellow crystal

Odour: None

9.2 Important health, safety and environmental information

pH: 4.5 as 1% solution in water.

Boiling point/boiling range: Not applicable

Flash point: None

Flammability (solid/gas):	Not flammable
Explosive properties:	Not explosive
Oxidizing properties:	Not an oxidizer
Vapour pressure:	Not applicable
Relative Density:	Not applicable
Solubility:	
-Water solubility:	38 g/100 ml
Tricalcium phosphate:	<1 g/L at 25°C
-Fat solubility:	Not soluble
Partition coefficient:	
n-octanol/water:	No determined
Viscosity:	Not applicable
Vapour density (air=1)	Not applicable
Evaporation rate:	Not applicable

9.3 Other information

Auto-ignition temperature: Does not ignite

10. Stability and Reactivity

10.1 Conditions to avoid

There are NO known conditions such as temperature, pressure, light, shock, etc., which may cause a dangerous reaction.

10.2 Materials to avoid

Strong alkalis, magnesium.

10.3 Hazardous decomposition products

Normally stable.

Hazardous polymerization will NOT occur.

Ammonia and/or phosphorous oxides can be evolved at very high temperatures.

11. Toxicological Information

This product has not been tested for toxicological effects. Product is treated as a nuisance dust.

Components:

Monoammonium Phosphate:

Material is irritating.

Harmful if swallowed.

Ammonium sulfate:

Toxicity Data: Oral (rat) LD 50 2840 mg/kg

Target Organs: Lungs and gastrointestinal

Tricalcium Phosphate:

Eye irritation: Not irritating.

Skin irritation: Not irritating.

Silica Gel:

Toxicity Data: Oral (rat) LD 50 >4500 mg/kg

Toxicity Data: Inhalation (rat) LC 50 >2 mg/hr.

12. Ecological Information

12.1 Ecotoxicity

Not determined.

12.2 Mobility

Not determined.

12.3 Persistence and degradability

Not relevant.

12.4 Bioaccumulative potential

Not determined

12.5 Other adverse effects

Ozone depletion potential: None

Photochemical ozone creation potential: None

Global warming potential: None

13. Ecological Information

No harm to the environment is expected from this preparation.

Dispose of in compliance with national, regional and local provisions that may be in force.

14. Transport Information

Hazard Class or Division: Fire Extinguisher, Class 2.2 UN No. 1044

For additional transport information, contact Flag Fire.

No harm to the environment is expected from this preparation.

15. Regulatory Information

Product:

EU Classification:

Harmful

R Phrases:

22

Harmful if swallowed.

36/37/38

Irritating to eyes, respiratory system and skin

S Phrases:

26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36

Wear suitable protective clothing.

Limit values for exposure:

Nuisance dust limit:

OSHA TWA: 15 mg/m³

ACGIH TLV-TWA: 10 mg/m³

EINECS Status: All components are included in EINECS inventories or are exempt from listing.

EPA TSCA Status: All components are included in TSCA inventories or are exempt from listing.

Canadian DSL: All components are included in DSL or are exempt from listing.

Environmental restrictions: None are known.

Restrictions on Marketing and

Use:

None are known.

Refer to any other national measures that may be relevant.

16. Other Information

(HMIS) Hazardous Material Identification System Ratings:

Health:	1	4. Severe Hazard
Flammability:	0	3. Serious Hazard
Reactivity:	0	2. Moderate Hazard
		1. Slight Hazard
		0. Minimal Hazard

(WHMIS) Canadian Workplace hazardous Material Identification System Ratings:

This product is rated: **D2B Harmful if swallowed. Irritating to eyes and skin.**

A Fire Extinguisher charged with air is rated: **A Compressed Gas.**

Format is from directive 2001/58/EC.

EINECS data is from <http://exb.jrc.it/existing-chemicals/>

Toxicological information added from the EINECS ESIS (Existing Substances Information System). A rating under WHMIS has been added, following the Canadian guidelines.

17. Disclaimer

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Flag Fire shall not be held liable for any damage resulting from handling or from contact with the above product.

