



A UTC Fire & Security Company

MATERIAL SAFETY DATA SHEET

Badger Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Badger Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent)
Other Trade Names 90% MAP, Ammonium Phosphate, Monoammonium Phosphate, Premium ABC
Manufacturer/Supplier Badger Fire Protection
Address 944 Glenwood Station Lane, Suite 303
Charlottesville, VA 22901
USA
Phone Number (434)-964-3200
Chemtrec Number (800) 424-9300
(for emergencies only) (703) 527-3887 (International)
Revision Date: August 7, 2007
MSDS Date: January 15, 2007

This MSDS has been compiled in accordance with - EC Directive 91/155/EC - OSHA's Hazcom Standard (29 CFR 1910.1200)

2. COMPOSITION/INFORMATION ON THE COMPONENTS

Component Name	CAS#/Codes	Concentration	R Phrases	EU Classification
Monoammonium Phosphate	7722-76-1 EC#2317645	90 - 97%	None	None
Mica	12001-26-2	1 - 4%	None	None
Clay	8031-18-3	1 - 4%	None	None
Amorphous Silica	7631-86-9 EC#2315454	<2%	None	None
Dye	NA	<0.1%	None	None

3. HAZARD IDENTIFICATION

EU Main Hazards

Non Hazardous Powder

Routes of Entry

- Eye contact - Inhalation - Skin contact

Carcinogenic Status

See Section 11 - Toxicity

Target Organs

- Respiratory System - Skin - Eye

Health Effects - Eyes

Contact for short periods of time may cause irritation.

Health Effects - Skin

Contact may cause mild irritation.



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3. HAZARD IDENTIFICATION

Health Effects - Ingestion

Ingestion is not an expected route of exposure.

Health Effects - Inhalation

May irritate the respiratory tract. May cause transient cough and shortness of breath.

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

Wash affected area with soap and water. Obtain medical attention if irritation persists.

Ingestion

Dilute by drinking large quantities of water and obtain medical attention.

Inhalation

Move victim to fresh air. Obtain medical attention immediately for any breathing difficulty.

Advice to Physicians

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media

This preparation 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 pressurized extinguishers and surroundings cool with water spray as they may rupture or burst in the heat of a fire.

Unusual Fire and Explosion Hazards

Pressurized 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

Sweep up or vacuum. Prevent skin and eye contact. Wear appropriate protective equipment.

7. HANDLING AND STORAGE

Pressurized extinguishers should be properly stored and secured to prevent falling or being knocked over. Do not drag, slide or roll extinguishers. Do not drop extinguishers or permit them to strike against each other. Never apply flame or localized heat directly to any part of the extinguisher or plastic container. Store pressurized extinguishers and plastic containers away from high heat sources. Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards

Occupational exposure limits are listed below, if they exist.

Mica

ACGIH TLV: 3 mg/m³ TWA, measured as respirable fraction of the aerosol.

OSHA PEL: 20 mppcf, <1% crystalline silica

Nuisance Dust Limit

OSHA PEL: 50 mppcf or 15 mg/m³ TWA, total dust

15 mppcf or 5 mg/m³ TWA, respirable fraction

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, use local exhaust ventilation.

Respiratory Protection

Not normally required. Use dust mask where dustiness is prevalent, or TLV is exceeded.

Hand Protection

Not normally needed when used as a portable fire extinguisher. Use gloves if irritation occurs.

Eye Protection

Chemical goggles or safety glasses with side shields.

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Powder
Color	Pale Yellow
Odor	Odorless
Specific Gravity	Not available
Boiling Range/Point (°C/F)	Not applicable
Flash Point (PMCC) (°C/F)	Not Flammable
Solubility in Water	Not applicable
Vapor Density (Air = 1)	Heavier than air.
Vapor Pressure	Not applicable
Evaporation Rate	Not applicable

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to Avoid

- Heat - High temperatures - Exposure to direct sunlight

Materials to Avoid

- Strong oxidizing agents - strong acids - sodium hypochlorite



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10. STABILITY AND REACTIVITY

Hazardous Polymerization

Will not occur.

Hazardous Decomposition Products

- oxides of carbon - ammonia - oxides of phosphorus - nitrogen oxides

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Low order of acute toxicity.

Chronic Toxicity/Carcinogenicity

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

Mica and clay may contain small quantities of quartz (crystalline silica) as an impurity. Prolonged exposure to respirable crystalline silica dust at concentrations exceeding the occupational exposure limits may increase the risk of developing a disabling lung disease known as silicosis. IARC found limited evidence for pulmonary carcinogenicity of crystalline silica in humans.

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

No relevant studies identified.

Persistence/Degradability

No relevant studies identified.

Bio-accumulation

No relevant studies identified.

Ecotoxicity

No relevant studies identified.

13. DISPOSAL

Dispose of container in accordance with all applicable local and national regulations. Do not cut, puncture or weld on or near to the container. No harm to the environment is expected from this preparation.



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14. TRANSPORT INFORMATION

DOT CFR 172.101 Data	Not regulated
UN Proper Shipping Name	Not regulated
UN Class	None
UN Number	None
UN Packaging Group	None

15. REGULATORY INFORMATION

EU Label Information

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

EU Hazard Symbol and Indication of Danger.

This preparation is not classified as dangerous.

R phrases

None

S phrases

None.

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 have not been verified for listing on the European Inventory of Existing Commercial Chemical Substances (EINECS) or the European List of New Chemical Substances (ELINCS).

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

D2B

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.

MA Right To Know Law

All components have been checked for inclusion on the Massachusetts Substance List (MSL). Those components present at or above the de minimus concentration include: - Mica (12001-26-2) 1-4% - Amorphous Silica (7631-86-9) <2%

PA Right To Know Law

This product contains the following chemicals found on the Pennsylvania Hazardous Substance List: - Mica (12001-26-2) 1-4% - Amorphous Silica (7631-86-9) <2%

NJ Right To Know Law

This product contains the following chemicals found on the NJ Right To Know Hazardous Substance List: - Mica (12001-26-2) 1-4% - Amorphous Silica (7631-86-9) <2%



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15. REGULATORY INFORMATION

California Proposition 65

This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

SARA Title III Sect. 302 (EHS)

This product does not contain any chemicals subject to SARA Title III Section 302.

SARA Title III Sect. 304

This product does not contain any chemicals subject to SARA Title III Section 304.

SARA Title III Sect. 311/312 Categorization

- Immediate (Acute) Health Hazard

SARA Title III Sect. 313

This product does not contain any chemicals that are listed in Section 313 at or above de minimis concentrations.

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Health - 1

NFPA Code for Flammability - 0

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards - None

HMIS Ratings

HMIS Code for Health - 1

HMIS Code for Flammability - 0

HMIS Code for Reactivity - 0

HMIS Code for Personal Protection - See Section 8

Abbreviations

N/A: Denotes no applicable information found or available

CAS#: Chemical Abstracts Service Number

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

R: Risk

S: Safety

Prepared By: EnviroNet LLC.

The information contained herein is based on data believed to be accurate. However, no representation, warranty, or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for its own particular use. Badger Fire Protection assumes no responsibility for personal injury or property damage resulting from use, handling or from contact with this product.

ABC Multipurpose Dry Chemical Stored Pressure Extinguisher Models

These fire extinguishers are economical and extremely versatile. They are ideal for tackling the majority of fire risks typically found in commercial, industrial and domestic applications.

Badger dry chemical extinguishing agents contain the highest percentage of essential base ingredients found in the fire extinguisher industry. “Multipurpose” agent models are suitable for use on Class A, B and C fires.

BadgerStandard models offer compliance and protection at a competitive price.

BadgerExtra models offer compliance and protection with premium features.



BADGER*Standard*
 Economical
 compliance

BADGER*Extra*
 Compliance
 with premium features

BADGER*Standard* Features

- 2.5, 5, 10 and 20 pound models
- Multipurpose agent contains 90% M.A.P.
- Laser welded carbon steel cylinders
- Corrosion resistant epoxy powder paint finish
- Stainless steel hose band & nozzle retainer
- UL Listed & USCG Approved – Meets D.O.T. requirements
- 12 Year periodic hydrostatic test interval
- 6 Year product warranty
- Available with hanger hook or brackets
- Machined aluminum valves
- Aluminum handles and levers

BADGER*Extra* Features

- 2.5, 5, 10 and 20 pound models
- Multipurpose agent contains 90% M.A.P.
- Laser welded carbon steel cylinders
- Corrosion resistant epoxy powder paint finish
- Stainless steel hose band & nozzle retainer
- UL Listed & USCG Approved – Meets D.O.T. requirements
- 12 Year periodic hydrostatic test interval
- 6 Year product warranty
- Available with hanger hook or brackets

Plus...

- Chrome plated brass valves
- Stainless steel handles and levers
- Large loop stainless steel pull pins with tether
- All models feature steel internal siphon tubes
- Plated brass hose couplings with hex fitting
- Rugged, heavy duty hoses
- Easy-to-read two piece nameplates

Technical Data: ABC Dry Chemical Stored Pressure Extinguisher Models

MODEL NUMBER	Badger ^{Extra} ABC Dry Chemical Extinguisher Models									Badger ^{Standard} ABC Dry Chemical				
	B250M-WH	B250M	B5M	B5M-B	B5M-1	B5M-1B	B10M	B10M-1	B20M	250MB-1	5MB-6H	5MB-6HB	10MB-8H	20MB-6H
NOMINAL CAPACITY (LBS) (KILOGRAMS)	2.5 1.13	2.5 1.13	5 2.27	5 2.27	5 2.27	5 2.27	10 4.54	10 4.54	20 9.07	2.5 1.13	5 2.27	5 2.27	10 4.54	20 9.07
UL FIRE RATING	1A-10B:C	1A-10B:C	3A-40B:C	3A-40B:C	2A-10B:C	2A-10B:C	4A-80B:C	4A-80B:C	20A-120B:C	1A-10B:C	3A-40B:C	3A-40B:C	4A-80B:C	20A-120B:C
AGENT FLOW RATE (LBS/SEC) (KG/SEC)	.31 .14	.31 .14	.39 .17	.39 .17	.39 .17	.39 .17	.51 .23	.54 .24	.75 .34	.31 .14	.39 .17	.39 .17	.51 .23	.75 .34
EXTINGUISHING AGENT TYPE	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC
ITEM PART NUMBER	23462	23384	23390	23463	23464	23466	23396	23467	23497	22430	22435	22486	22603	22682
VALVE MATERIAL	BRASS	BRASS	BRASS	BRASS	BRASS	BRASS	BRASS	BRASS	BRASS	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM
CYLINDER MATERIAL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL
SHIPPING WEIGHT (LBS) (KILOGRAMS)	5.4 2.47	5.8 2.65	10.4 4.7	10.4 4.7	10.4 4.7	10.4 4.7	18 8.16	18 8.16	33 15	5.4 2.4	10 4.5	10 4.5	17 7.71	33 14.96
OPERATING PRESSURE	195 PSI	195 PSI	195 PSI	195 PSI	195 PSI	195 PSI	195 PSI	195 PSI	195 PSI	195 PSI	195 PSI	195 PSI	195 PSI	195 PSI
EXPELLANT	NITROGEN	NITROGEN	NITROGEN	NITROGEN	NITROGEN	NITROGEN	NITROGEN	NITROGEN	NITROGEN	NITROGEN	NITROGEN	NITROGEN	NITROGEN	NITROGEN
TEMPERATURE RANGE (F) (C)	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°	-40° to 120° -40° to 49°
DISCHARGE TIME (SECONDS)	9.5	9.5	14	14	14	14	22	22	28	9.5	14	14	22	28
DISCHARGE RANGE (FEET) (METERS)	10 to 15 3.14 to 4.6	10 to 15 3.14 to 4.6	12 to 18 3.7 to 5.5	12 to 18 3.7 to 5.5	12 to 18 3.7 to 5.5	12 to 18 3.7 to 5.5	16 to 20 4.9 to 6.1	16 to 20 4.9 to 6.1	16 to 20 4.9 to 6.1	10 to 15 3.14 to 4.6	12 to 18 3.7 to 5.5	12 to 18 3.7 to 5.5	16 to 20 4.9 to 6.1	16 to 20 4.9 to 6.1
UNIT HEIGHT (INCHES) (CENTIMETERS)	14.875 37.78	14.875 37.78	15.25 38.7	15.25 38.7	15.25 38.7	15.25 38.7	18.94 48.1	19.13 48.59	21.13 53.67	14.87 37.78	15.25 38.7	15.25 38.7	18.94 48.1	21.13 53.67
UNIT WIDTH (INCHES) (CENTIMETERS)	5.5 13.97	5.5 13.97	7.5 18.41	7.25 18.41	7.25 18.41	7.25 18.41	7.75 19.68	8.13 20.65	9.25 23.49	5.5 13.97	7.25 18.41	7.25 18.41	7.75 19.68	9.25 23.49
UNIT DEPTH (INCHES) (CENTIMETERS)	3 7.52	3 7.62	4.25 10.8	4.25 10.8	4.25 10.8	4.25 10.8	5.25 13.33	5.25 13.33	7.25 18.41	3 7.62	4.25 10.8	4.25 10.8	5.25 13.33	7.25 18.41
USCG APPROVAL	Type B:C Size-I	Type B:C Size-I	Type A Size-II Type B:C Size-I	Type A Size-II Type B:C Size-I	Type A Size-II Type B:C Size-I	Type A Size-II Type B:C Size-I	Type A Size-II Type B:C Size-II	Type A Size-II Type B:C Size-II	Type A Size-II Type B:C Size-III	Type B:C Size-I	Type A Size-II Type B:C Size-I	Type A Size-II Type B:C Size-I	Type A Size-II Type B:C Size-II	Type A Size-II Type B:C Size-III
USCG BRACKET	MB-250 OPTIONAL	MB-250 INCLUDED	MB-5 OPTIONAL	MB-5 INCLUDED	MB-5 OPTIONAL	MB-5 INCLUDED	UB-10 OPTIONAL	UB-10 OPTIONAL	UB-20 OPTIONAL	MB-250 INCLUDED	MB-5 OPTIONAL	MB-5 INCLUDED	UB-10 OPTIONAL	UB-20 OPTIONAL

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