



## SAFETY DATA SHEET

### Badger Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent, Pressurized and Non-pressurized)

#### 1. IDENTIFICATION

|                                                         |                                                                                                      |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Product Name                                            | Badger Multi-Purpose ABC Dry Chemical<br>(Fire Extinguishing Agent, Pressurized and Non-pressurized) |
| Other Names                                             | 90% MAP, Ammonium Phosphate, Monoammonium Phosphate, Premium ABC                                     |
| Recommended use of the chemical and restrictions on use |                                                                                                      |
| Identified uses                                         | Fire Extinguishing Agent                                                                             |
| Restrictions on use                                     | Consult applicable fire protection codes                                                             |
| Company Identification                                  | Badger Fire Protection<br>1016 Corporate Park Drive<br>Mebane, NC 27302<br>USA<br>(434)-964-3200     |
| Customer Information Number                             |                                                                                                      |
| Emergency Telephone Number                              |                                                                                                      |
| CHEMTREC Number                                         | (800) 424-9300<br>(703) 527-3887 (International)                                                     |
| Issue Date                                              | September 28, 2023                                                                                   |
| Supersedes Date                                         | December 10, 2019                                                                                    |

*Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200, the Canadian Hazardous Products Regulations (HPR) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)*

#### 2. HAZARD IDENTIFICATION

This SDS covers the product listed above as sold in pressurized and non-pressurized containers. GHS classifications for both forms are listed below.

##### GHS Classification – Pressurized

##### Hazard Classification

Gas under pressure – Compressed gas

##### Label Elements

Hazard Symbols



Signal Word: Warning

##### Hazard Statements

Contents under pressure; may explode if heated.

##### Precautionary Statements

##### Prevention

None

##### Response

None



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### 2. HAZARD IDENTIFICATION

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**Storage**

Protect from sunlight.

Store in well-ventilated place.

**Disposal**

None

**GHS Classification: Non - pressurized****Hazard Classification**

This product is classified as not hazardous in accordance with the Globally Harmonized System of Classification and Labelling (GHS).

**Label Elements**

Hazard Symbols

None

Signal Word: None

**Hazard Statements**

None

**Precautionary Statements****Prevention**

None

**Response**

None

**Storage**

None

**Disposal**

None

**Other Hazards**

Mica 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.

**Specific Concentration Limits**

The values listed below represent the percentages of ingredients of unknown toxicity.

Acute oral toxicity < 10%

Acute dermal toxicity < 10%

Acute inhalation toxicity < 10%

Acute aquatic toxicity < 10%

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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This product is a mixture.



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#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component                        | CAS Number | Concentration* |
|----------------------------------|------------|----------------|
| Calcium Carbonate                | 471-34-1   | 1 – 5%         |
| Mica                             | 12001-26-2 | 0.5 – 1.5%     |
| Clay (Kaolin)                    | 1332-58-7  | 0.1 – 1.0%     |
| <b>Non-hazardous ingredients</b> |            |                |
| Monoammonium Phosphate           | 7722-76-1  | 80 – 100%      |

**Note:** Pressurized product uses nitrogen, carbon dioxide or compressed air as the expellant.

\*Exact concentration withheld as trade secret.

#### 4. FIRST- AID MEASURES

##### Description of necessary first-aid measures

###### Eyes

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

###### Skin

Wash skin thoroughly 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.

##### Most important symptoms/effects, acute and delayed

Aside from the information found under Description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

##### Indication of immediate medical attention and special treatment needed

###### Notes to Physicians

Treat symptomatically.

#### 5. FIRE - FIGHTING MEASURES

##### Suitable Extinguishing Media

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

##### Specific hazards arising from the chemical

Pressurized containers may explode in heat of fire.

##### Special Protective Actions for Fire-Fighters

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



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### 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures**

Wear appropriate protective clothing. Prevent skin and eye contact. Remove leaking container to a safe place. Ventilate the area.

**Environmental Precautions**

Prevent large quantities of the material from entering drains or watercourses.

**Methods and materials for containment and cleaning up**

Sweep up or vacuum and transfer into suitable containers for recovery or disposal.

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### 7. HANDLING AND STORAGE

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**Precautions for safe handling**

Wear appropriate protective clothing. Prevent skin and eye contact.

**Conditions for safe storage**

Pressurized containers should be properly stored and secured to prevent falling or being knocked over. Do not drag, slide or roll pressurized containers. Do not drop pressurized containers or permit them to strike against each other. Never apply flame or localized heat directly to any part of the pressurized or plastic container. Store pressurized 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

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**Control parameters**

Exposure limits are listed below, if they exist.

**Calcium Carbonate**

OSHA PEL: 15 mg/m<sup>3</sup> TWA, total dust  
5 mg/m<sup>3</sup> TWA, respirable fraction

**Mica**

ACGIH TLV: 3 mg/m<sup>3</sup> TWA, measured as respirable fraction of the aerosol.  
OSHA PEL: 20 mppcf, <1% crystalline silica

**Kaolin**

ACGIH TLV: 2 mg/m<sup>3</sup> TWA, for particulate matter containing no asbestos and <1% Crystalline silica  
OSHA PEL: 15 mg/m<sup>3</sup> TWA, total dust  
5 mg/m<sup>3</sup> TWA, respirable fraction

**Particulates not otherwise classified /regulated**

OSHA PEL: 50 mppcf or 15 mg/m<sup>3</sup> TWA, total dust  
15 mppcf or 5 mg/m<sup>3</sup> TWA, respirable fraction

**Appropriate engineering controls**

Use with adequate ventilation. If this product is used in a pressurized system, there should be local procedures for the selection, training, inspection and maintenance of this equipment. When used in large volumes, use local exhaust ventilation.



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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Individual protection measures

##### Respiratory Protection

Not normally required. Use dust mask where dustiness is prevalent, or TLV is exceeded. In oxygen deficient atmospheres, use a self-contained breathing apparatus, as an air purifying respirator will not provide protection.

##### Skin Protection

Gloves

##### Eye/Face Protection

Chemical goggles or safety glasses with side shields.

##### Body Protection

Normal work wear.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Non- Pressurized

##### Appearance

Physical State  
Color

Solid (powder)  
Pale Yellow

##### Odor

Odorless

##### Odor Threshold

No data available

##### pH

Not applicable

##### Specific Gravity

No data available

##### Boiling Range/Point (°C/F)

Not applicable

##### Melting Point (°C/F)

No data available

##### Flash Point (PMCC) (°C/F)

Not flammable

##### Vapor Pressure

No data available

##### Evaporation Rate (BuAc=1)

No data available

##### Solubility in Water

No data available

##### Vapor Density (Air = 1)

Not applicable

##### VOC (g/l)

None

##### VOC (%)

None

##### Partition coefficient (n-octanol/water)

No data available

##### Viscosity

No data available

##### Auto-ignition Temperature

No data available

##### Decomposition Temperature

No data available

##### Upper explosive limit

No data available

##### Lower explosive limit

No data available

##### Flammability (solid, gas)

No data available

#### Expellant

##### Appearance

Physical State  
Color

Compressed gas  
Colorless

##### Odor

None

##### Odor Threshold

No data available

##### pH

Not applicable

##### Specific Gravity

0.075 lb/ft<sup>3</sup> @ 70°F as vapor (Nitrogen)  
0.1144 lb/ft<sup>3</sup> (Carbon dioxide gas density)

##### Boiling Range/Point (°C/F)

-196°C/-321°F (Nitrogen)  
-78.5 °C /-109.3°F (Carbon Dioxide)



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### 9. PHYSICAL AND CHEMICAL PROPERTIES

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|                                         |                                                 |
|-----------------------------------------|-------------------------------------------------|
| Melting Point (°C/F)                    | -210°C/-346°F (Nitrogen)                        |
| Flash Point (PMCC) (°C/F)               | Not flammable                                   |
| Vapor Pressure                          | 838 psig @70°F and 1 atmosphere(Carbon Dioxide) |
| Evaporation Rate (BuAc=1)               | Not applicable                                  |
| Solubility in Water                     | 0.02 g/L (Nitrogen)                             |
| Vapor Density (Air = 1)                 | 0.97 (Nitrogen)                                 |
| VOC (g/l)                               | Not applicable                                  |
| 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                                   |

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### 10. STABILITY AND REACTIVITY

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#### Reactivity

Pressurized containers may rupture or explode if exposed to heat.

#### Chemical Stability

Stable under normal conditions.

#### Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### Conditions to Avoid

Exposure to direct sunlight - contact with incompatible materials

#### Incompatible Materials

Strong oxidizing agents - strong acids - sodium hypochlorite

#### Hazardous Decomposition Products

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

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### 11. TOXICOLOGICAL INFORMATION

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#### Acute Toxicity

##### Mica:

Oral LD50 (Rat) >2000 mg/kg

##### Clay:

Oral LD50 (Rat) >5000 mg/kg

Dermal LD50 (Rabbit) >5000mg/kg

##### Nitrogen

Simple asphyxiant

##### Carbon Dioxide

Simple asphyxiant

LCLo (inhalation in humans): 90,000ppm/ 5 minutes.



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#### Specific Target Organ Toxicity (STOT) – single exposure

Nitrogen: Exposure to nitrogen gas at high concentrations can cause suffocation by reducing oxygen available for breathing. Breathing very high concentrations can cause dizziness, shortness of breath, unconsciousness or asphyxiation.

#### Specific Target Organ Toxicity (STOT) – repeat exposure

No relevant studies identified.

#### Serious Eye damage/Irritation

Mica: Not irritating (rabbit)

#### Skin Corrosion/Irritation

Mica: Not irritating (rabbit)

#### Respiratory or Skin Sensitization

No relevant studies identified.

#### Carcinogenicity

Mica 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 has classified Silica Dust, Crystalline, in the form of quartz or cristobalite as 1 (carcinogenic to humans).

#### Germ Cell Mutagenicity

No relevant studies identified.

#### Reproductive Toxicity

No relevant studies identified.

#### Aspiration Hazard

Not an aspiration hazard.

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### 12. ECOLOGICAL INFORMATION

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#### Ecotoxicity

No relevant studies identified.

#### Mobility in soil

No relevant studies identified.

#### Persistence/Degradability

No relevant studies identified.

#### Bioaccumulative Potential

No relevant studies identified.

#### Other adverse effects

No relevant studies identified.



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#### **13. DISPOSAL CONSIDERATIONS**

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##### **Disposal Methods**

Dispose of container in accordance with all applicable local and national regulations.

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#### **14. TRANSPORT INFORMATION**

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Safety Data Sheet information is intended to address a specific material and not various forms or states of containment.

##### Special Precautions for Shipping:

Individuals must be certified as Hazardous Material Shipper for all transportation modes.

Pressurized Fire Extinguishers are considered a hazardous material by the US Department of Transportation and Transport Canada.

|                                                         |                                                              |
|---------------------------------------------------------|--------------------------------------------------------------|
| <b>DOT CFR 172.101 Data</b>                             | Fire extinguishers, 2.2, UN1044                              |
| <b>UN Proper Shipping Name</b>                          | Fire extinguishers                                           |
| <b>UN Class</b>                                         | (2.2)                                                        |
| <b>UN Number</b>                                        | UN1044                                                       |
| <b>UN Packaging Group</b>                               | Not applicable                                               |
| <b>Classification for AIR<br/>Transportation (IATA)</b> | Consult current IATA Regulations prior to shipping by air.   |
| <b>Classification for Water<br/>Transport IMDG</b>      | Consult current IMDG Regulations prior to shipping by water. |

When shipping via ground, portable fire extinguishers pressurized to less than 241 psi and of less than 1100 cubic inches in size meet the requirements of "Limited Quantity" as referenced in 49 CFR 173.309 (2010). There is no limited quantity designation for fire extinguishers when shipped by air or water.

This section is believed to be accurate at the time of preparation. It is not intended to be a complete statement or summary of the applicable laws, rules, or hazardous material regulations, and is subject to change. Users have the responsibility to confirm compliance with all laws, rules, and hazardous material regulations in effect at the time of shipping.

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#### **15. REGULATORY INFORMATION**

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##### **United States TSCA Inventory**

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

##### **Canada DSL Inventory**

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.

##### **SARA Title III Sect. 311/312 Categorization: Pressurized**

Gas under pressure

##### **SARA Title III Sect. 311/312 Categorization: Non-pressurized**

None

##### **SARA Title III Sect. 313**

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



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### 16. OTHER INFORMATION

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#### **NFPA Ratings**

NFPA Code for Health - 1

NFPA Code for Flammability - 0

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards - None

#### **Legend**

ACGIH: American Conference of Governmental Industrial Hygienists

CAS#: Chemical Abstracts Service Number

EC50: Effect Concentration 50%

IARC: International Agency for Research on Cancer

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

N/A: Denotes no applicable information found or available

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

TLV: Threshold Limit Value

TSCA: Toxic Substance Control Act

Revision Date: September 28, 2023

Replaces: December 10, 2019

Changes made: Updates to Sections 1 and 16.

#### **Information Source and References**

This SDS is prepared by Hazard Communication Specialists based on information provided by internal company references.

The information and recommendations presented in this SDS are based on sources believed to be accurate. Badger Fire Protection assumes no liability for the accuracy or completeness of this information. It is the user's responsibility to determine the suitability of the material for their particular purposes. In particular, we make **NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED**, with respect to such information, and we assume no liability resulting from its use. Users should ensure that any use or disposal of the material is in accordance with applicable Federal, State, and local laws and regulations.

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