# SAFETY DATA SHEET
## Kidde 90 Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent, Pressurized and Non-pressurized)

## 1. IDENTIFICATION

| | |
|---|---|
| **Product Name** | Kidde 90 Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent, Pressurized and Non-pressurized) |
| **Other Names** | ABC, Ammonium Phosphate, Monoammonium Phosphate, Tri-Class |
| **Recommended use of the chemical and restrictions on use** | |
| **Identified uses** | Fire Extinguishing Agent |
| **Restrictions on use** | Consult applicable fire protection codes |
| **Company Identification** | Kidde Residential & Commercial<br>1016 Corporate Park Drive<br>Mebane, NC 27302<br>USA |
| **Customer Information Number** | (919) 563-5911<br>(919) 304-8200 |
| **Emergency Telephone Number** | |
| **CHEMTREC Number** | (800) 424-9300<br>(703) 527-3887 (International) |
| **Issue Date** | October 1, 2015 |
| **Supersedes Date** | April 10, 2015 |

*Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200) 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.

## 2. HAZARD IDENTIFICATION

**Precautionary Statements**
**Prevention**
None
**Response**
None
**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% |

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

| Component | CAS Number | Concentration |
|---|---|---|
| Monoammonium Phosphate | 7722-76-1 | 85 - 95% |
| Ammonium Sulfate | 7783-20-2 | < 5% |
| Mica | 12001-26-2 | < 5% |
| Clay | 1332-58-7 | < 5% |
| Amorphous Silica | 7631-86-9 | < 5% |
| Dye | NA | <1% |

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

## 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.

## 6. ACCIDENTAL RELEASE MEASURES

**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.

## 7. HANDLING AND STORAGE

**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

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**
Exposure limits are listed below, if they exist.

**Mica**
ACGIH TLV: 3 mg/m$^3$ TWA, measured as respirable fraction of the aerosol.
OSHA PEL: 20 mppcf, <1% crystalline silica
**Clay as Kaolin, Respirable Fraction**
ACGIH TLV: 2 mg/m$^3$ TWA
OSHA PEL: 15 mg/m$^3$ TWA, total dust
5 mg/m$^3$ TWA, respirable fraction
**Nuisance Dust Limit**
OSHA PEL: 50 mppcf or 15 mg/m$^3$ TWA, total dust
15 mppcf or 5 mg/m$^3$ 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.

**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.

## 8. EXPOSURE CONTROLS/PERSONAL 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** | Solid (powder) |
| **Color** | 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 - Nitrogen**
**Appearance**

| | |
|---|---|
| **Physical State** | Compressed gas |
| **Color** | Colorless |
| **Odor** | None |
| **Odor Threshold** | No data available |
| **pH** | Not applicable |
| **Specific Gravity** | 0.075 lb/ft$^3$ @70°F as vapor |
| **Boiling Range/Point (°C/F)** | -196°C/-321 °F |
| **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 |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Vapor Density (Air = 1)** | Not applicable |
| **VOC (g/l)** | None |
| **VOC (%)** | None |
| **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

**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

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity**
Monoammonium Phosphate:
Oral LD50 (Rat) 5750 mg/kg
Dermal LD50 (Rabbit) >5000mg/kg
Inhalation LC50 (Rat) 5.1mg/l
Ammonium Sulfate:
Oral LD50 (Rat) 4250 mg/kg
Dermal LD50 (Rabbit) >2000mg/kg
Mica:
Oral LD50 (Rat) >2000 mg/kg
Amorphous Silica:
Oral LD50 (Rat) >5000 mg/kg
Dermal LD50 (Rabbit) >2000mg/kg

## 11. TOXICOLOGICAL INFORMATION

Clay:
Oral LD50 (Rat) >5000 mg/kg
Dermal LD50 (Rabbit) >5000mg/kg
Nitrogen
Simple asphyxiant

**Specific Target Organ Toxicity (STOT) – single exposure**
Monoammonium Phosphate: Available data indicates this component is not expected to cause target organ effects after a single exposure.
Ammonium Sulfate: Available data indicates this component is not expected to cause target organ effects after a 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**
Monoammonium Phosphate: Available data indicates this component is not expected to cause target organ effects after repeat exposure.
Ammonium Sulfate: Available data indicates this component is not expected to cause target organ effects after repeat exposure.

**Serious Eye damage/Irritation**
Monoammonium Phosphate: Not irritating (rabbit)
Ammonium Sulfate: Not irritating (rabbit)
Mica: Not irritating (rabbit)

**Skin Corrosion/Irritation**
Monoammonium Phosphate: Not irritating in rabbit test study
Ammonium Sulfate: Not irritating (rabbit)
Mica: Not irritating (rabbit)

**Respiratory or Skin Sensitization**
Monoammonium Phosphate: Not skin sensitizing based on test (Mouse local lymphnode assay (LLNA)) on an analogous compound
Ammonium Sulfate: Not sensitizing in Guinea pig maximisation test

**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**
Monoammonium Phosphate: Not mutagenic in the mouse lymphoma cells in mammalian cell gene mutation assay
Ammonium Sulfate: Negative results in Ames Test, in vitro mammalian chromosome aberration test, and mammalian cell gene mutation assay.

## 11. TOXICOLOGICAL INFORMATION

**Reproductive Toxicity**
Monoammonium Phosphate: Available data indicates this component is not expected to cause reproductive toxicity or birth defects.
Ammonium Sulfate: Available data indicates this component is not expected to cause reproductive toxicity or birth defects.

**Aspiration Hazard**
Not an aspiration hazard.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
Monoammonium Phosphate:
LC50 rainbow trout >100 mg/l 96h
LC50 water flea 1790 mg/l 72h (similar substance)

**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.

## 13. DISPOSAL CONSIDERATIONS

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

## 14. TRANSPORT INFORMATION

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.

| | |
|---|---|
| **DOT CFR 172.101 Data** | Fire extinguishers, 2.2, UN1044 |
| **UN Proper Shipping Name** | Fire extinguishers |
| **UN Class** | (2.2) |
| **UN Number** | UN1044 |
| **UN Packaging Group** | Not applicable |

## 14. TRANSPORT INFORMATION

| | |
|---|---|
| **Classification for AIR Transportation (IATA)** | Consult current IATA Regulations prior to shipping by air. |
| **Classification for Water Transport IMDG** | 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.

## 15. REGULATORY INFORMATION

**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**
Pressure hazard
**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.

## 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 Physical Hazard - 0
HMIS Code for Personal Protection - See Section 8
*Chronic

## 16. OTHER INFORMATION

**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: October 1, 2015
Replaces: April 10, 2015
Changes made: Update to Section 14.

**Information Source and References**
This SDS is prepared by Hazard Communication Specialists based on information provided by internal company references.
**Prepared By:** EnviroNet LLC.

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