Safety Data Sheet

Material Name: ABC Dry Chemical Powder and Nitrogen

*** Section 1 - Identification of the Substance/Preparation and the Company/Undertaking ***

Manufacturer Information
Kidde Aerospace & Defense
4200 Airport Drive, NW
Wilson, NC 27896

Phone: 252-246-7004
Emergency # 1-800-451-8346; 760-602-8700 (3E Company)

*** Section 2 - Hazards Identification ***

Human and Environmental Hazards
None necessary.
This product is not classifiable under the EU directives 67/548/EC or 1999/45/EC.

*** Section 3 - Composition / Information on Ingredients ***

<table>
<thead>
<tr>
<th>EC #</th>
<th>Component</th>
<th>Percent</th>
<th>Symbols</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>231-764-5</td>
<td>Monoammonium phosphate 7722-76-1</td>
<td>25-95</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>231-984-1</td>
<td>Ammonium sulfate 7783-20-2</td>
<td>0-70</td>
<td>-</td>
<td>-</td>
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<tr>
<td>-</td>
<td>Mica 12001-26-2</td>
<td>1-4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>434-290-9</td>
<td>Fullers earth 8031-18-3</td>
<td>1-4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>Siloxanes and Silicones, methyl hydrogen 63148-57-2</td>
<td>0.3-1.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>231-545-4</td>
<td>Silica, amorphous 7631-86-9</td>
<td>0.2-1.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>231-783-9</td>
<td>Nitrogen 7727-37-9</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*** Section 4 - First Aid Measures ***

First Aid: Eyes
If eyes come into contact with pressurized product get immediate medical attention. Gently rinse eyes with cool water until medical attention arrives.

First Aid: Skin
For skin contact, flush with large amounts of water. If irritation persists, get medical attention.

First Aid: Ingestion
If the material is swallowed, get immediate medical attention or advice.

First Aid: Inhalation
If inhaled, immediately remove the affected person to fresh air.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards
Pressurized Container: May explode when exposed to heat or flame. The material itself is a fire extinguishing agent and will not burn.

Hazardous Combustion Products
Ammonia, carbon oxides, phosphorus oxides.

Extinguishing Media
Use methods for the surrounding fire.

Fire Fighting Equipment/Instructions
Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Use water to cool fire-exposed containers and to protect personnel.
**Section 6 - Accidental Release Measures**

**Containment Procedures**
Stop the flow of material, if this is without risk. Contain the discharged material.

**Clean-Up Procedures**
Ventilate the contaminated area. Sweep up or gather material and place in appropriate container for disposal. Wash spill area thoroughly. Wear appropriate protective equipment during cleanup.

**Evacuation Procedures**
Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed.

**Special Procedures**
Avoid inhalation of dust from the spilled material. Avoid contact with skin and eyes. Wear appropriate personal protective equipment. Do not allow product to enter sewer or waterways.

**Section 7 - Handling and Storage**

**Handling Procedures**
Do not get into contact with the eyes or skin. Inspect extinguisher to insure container integrity. Do not drag, slide or roll extinguishers. Do not drop extinguishers or permit them to strike against each other. Do not mix with other extinguishing agents.

**Storage Procedures**
Store in accordance with all current regulations and standards. Pressurized extinguishers should be properly stored and secured to prevent falling or being knocked over. Never apply flame or localized heat to any part of the extinguisher. Store pressurized extinguishers away from high heat sources. Storage area should be cool, dry, well-ventilated and under cover out of direct sunlight.

**Specific Use**
Fire-extinguisher.

**Section 8 - Exposure Controls / Personal Protection**

**Substance Exposure Limits**

**Mica (-)**
- ACGIH: 3 mg/m³ TWA (respirable fraction)
- Belgium: 3 mg/m³ TWA
- Ireland: 10 mg/m³ TWA (total inhalable dust); 0.8 mg/m³ TWA (respirable dust)
- Portugal: 3 mg/m³ TWA (respirable fraction)
- Spain: 3 mg/m³ VLA-ED (respirable fraction, this value is for the particulated matter that is free from asbestos and contains less than 1% of crystalline silica)

**Siloxanes and Silicones, methyl hydrogen (-)**
- Denmark: 1 ppm Ceiling; 6 mg/m³ Ceiling

**Silica, amorphous (231-545-4)**
- Austria: 4 mg/m³ MAK (inhalable fraction)
- Germany: 4 mg/m³ TWA (inhalable fraction)
- Portugal: 4 mg/m³ MAK (inhalable fraction)
- Ireland: 6 mg/m³ TWA (total inhalable dust); 2.4 mg/m³ TWA (respirable dust)

**Nitrogen (231-783-9)**
- Ireland: Asphyxiant
- Portugal: Simple Asphyxiant

**Engineering Controls**
Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.

**PERSONAL PROTECTIVE EQUIPMENT**

**Personal Protective Equipment: Eyes/Face**
Wear safety glasses with side shields. Chemical safety goggles recommended as a mechanical barrier for prolonged exposure.
**Personal Protective Equipment: Skin**

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

**Personal Protective Equipment: Respiratory**

None required where adequate ventilation conditions exist. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

**Personal Protective Equipment: General**

Eye wash fountain and emergency showers are recommended. Use good industrial hygiene practices in handling this material.

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**Section 9 - Physical & Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Pale colored fine powder (variable color)</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid, powder</td>
</tr>
<tr>
<td>pH</td>
<td>Not Available.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not Available.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Available.</td>
</tr>
<tr>
<td>Solubility (H2O)</td>
<td>22.7g/100g</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.9 (approximate)</td>
</tr>
<tr>
<td>Auto Ignition</td>
<td>Not Applicable.</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>Not Applicable.</td>
</tr>
<tr>
<td>UFL</td>
<td>Not Applicable.</td>
</tr>
<tr>
<td>LFL</td>
<td>Not Applicable.</td>
</tr>
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<td>LFL</td>
<td>Not Applicable.</td>
</tr>
</tbody>
</table>

**Section 10 - Chemical Stability & Reactivity Information**

**Chemical Stability**

Stable under normal conditions.

**Chemical Stability: Conditions to Avoid**

Protect container from heat and physical damage.

**Incompatibility**

Strong alkalies. Do not mix with other types of dry chemical extinguishing agents.

**Hazardous Decomposition**

Ammonia, carbon oxides, phosphorus oxides.

**Hazardous Polymerisation**

Will not occur.

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**Section 11 - Toxicological Information**

**Potential Health Effects**

**A: General Product Information**

Exposure to dust may be irritating to eyes, nose, and throat. Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis.

**B: Substance Analysis - LD50/LC50**

- **Monoammonium phosphate (231-764-5)**
  - Oral LD50 Rat: 5750 mg/kg; Dermal LD50 Rabbit: >7940 mg/kg

- **Ammonium sulfate (231-984-1)**
  - Oral LD50 Rat: 2000 mg/kg

- **Silica, amorphous (231-545-4)**
  - Oral LD50 Rat: >5000 mg/kg; Dermal LD50 Rabbit: >2000 mg/kg

**Carcinogenicity**

**A: General Product Information**

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 of pulmonary carcinogenicity of crystalline silica in humans.
B: Substance Carcinogenicity

Silica, amorphous (231-545-4)
IARC: Monograph 68 [1997], Supplement 7 [1987] (Group 3 (not classifiable))

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information
No information available for the product.

B: Substance Analysis - Ecotoxicity - Aquatic Toxicity

Ammonium sulfate (231-984-1)

<table>
<thead>
<tr>
<th>Test &amp; Species</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 Hr LC50 Leuciscus idus</td>
<td>460-1000 mg/L static</td>
</tr>
<tr>
<td>96 Hr LC50 Brachydanio rerio</td>
<td>250 mg/L</td>
</tr>
<tr>
<td>96 Hr LC50 Cyprinus carpio</td>
<td>18 mg/L</td>
</tr>
<tr>
<td>96 Hr LC50 Pimephales promelas</td>
<td>&gt;100 mg/L</td>
</tr>
<tr>
<td>24 Hr EC50 water flea</td>
<td>423 mg/L</td>
</tr>
<tr>
<td>48 Hr EC50 Daphnia magna</td>
<td>14 mg/L</td>
</tr>
</tbody>
</table>

Silica, amorphous (231-545-4)

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</thead>
<tbody>
<tr>
<td>96 Hr LC50 Brachydanio rerio</td>
<td>5000 mg/L static</td>
</tr>
<tr>
<td>72 Hr EC50 Selenastrum capricornutum</td>
<td>440 mg/L</td>
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<tr>
<td>48 Hr EC50 Ceriodaphnia dubia</td>
<td>7600 mg/L</td>
</tr>
</tbody>
</table>

Mobility
No information available for the product.

Persistence & Degradation
No information available for the product.

Bioaccumulation
No information available for the product.

Other Adverse Effects
No additional information available.

*** Section 13 - Disposal Considerations ***

Waste Disposal Instructions
Avoid disposal, attempt to utilize preparation completely. Prior to disposal of unused preparation, consult an approved waste disposal operative to ensure regulatory compliance. Refer to local statutory requirements for proper disposal instructions.

*** Section 14 - Transportation Information ***

IATA Information
Shipping Name: Fire extinguishers
UN #: UN1044 Hazard Class: 2.2
Required Label(s): 2, Non-flammable gas

ICAO Information
Shipping Name: Fire extinguishers
UN #: UN1044 Hazard Class: 2.2
Required Label(s): 2, Non-flammable gas
Safety Data Sheet

Material Name: ABC Dry Chemical Powder and Nitrogen

SDS ID: KA017EU

ADR Information

Shipping Name: Fire extinguishers
UN #: UN1044
Hazard Class: 2
Required Label(s): 2, Non-flammable gas

RID Information

Shipping Name: Fire extinguishers
UN #: UN1044
Hazard Class: 2
Required Label(s): 2, Non-flammable gas

** Section 15 - Regulatory Information **

EU MARKING AND LABELLING:

Symbol(s):
None.

Risk Phrases:
None.

Safety Phrases:
None.

A: General Product Information

None.

This product is not classifiable under the EU directives 67/548/EC or 1999/45/EC.

B: Component Analysis - Inventory

<table>
<thead>
<tr>
<th>Component/CAS</th>
<th>EC #</th>
<th>EEC</th>
<th>CAN</th>
<th>TSCA</th>
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<tr>
<td>Monoammonium phosphate 7722-76-1</td>
<td>231-764-5</td>
<td>EINECS</td>
<td>DSL</td>
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** Section 16 - Other Information **

Substance Risk Phrases

None.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; DOT = Department of Transportation; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EU = European Union; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TWA = Time Weighted Average

End of Sheet KA017EU