Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Product name  FORAY® ABC Multi-Purpose Dry Chemical

1. Identification

1.1.  Product Identifier
Product name  FORAY® ABC Multi-Purpose Dry Chemical

1.2.  Other means of identification
Product code  415788
Synonyms  None
Chemical Family  No information available

1.3.  Recommended use of the chemical and restrictions on use
Recommended use  Fire extinguishing agent
Uses advised against  Consumer use

1.4.  Details of the Supplier of the Safety Data Sheet
Company Name  Tyco Fire Protection Products
One Stanton Street
Marinette, WI 54143-2542
Telephone: 715-735-7411

Contact point  Product Stewardship at 1-715-735-7411
E-mail address  psra@tycofp.com

1.5.  Emergency Telephone Number
Emergency telephone  CHEMTREC 800-424-9300 or 703-527-3887

2. Hazards Identification

Classification
OSHA Regulatory Status
This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

2.2.  Label Elements

hazard statements
Non-hazardous

The product contains no substances which at their given concentration, are considered to be hazardous to health

Precautionary Statements

Prevention
None.

2.3.  Hazards Not Otherwise Classified (HNOC)

Not Applicable.

2.4.  OTHER INFORMATION
Unknown Acute Toxicity 7.4258% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/information on Ingredients

3.1. Mixture

The following component(s) in this product are considered hazardous under applicable OSHA(USA).

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium dihydrogen phosphate</td>
<td>7722-76-1</td>
<td>60 - 100</td>
</tr>
<tr>
<td>Ammonium sulfate, technical</td>
<td>7783-20-2</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Attapulgite</td>
<td>12174-11-7</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

4. First aid measures

4.1. Description of first aid measures

Eye Contact  Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Skin contact  Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation  If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

Ingestion  If swallowed: Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms  None known.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians  Treat symptomatically.

5. Fire-fighting measures

5.1. Suitable Extinguishing Media

Product is extinguishing agent. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Unsuitable Extinguishing Media

None.

5.3. Specific Hazards Arising from the Chemical

None in particular.

5.4. Explosion Data

- Sensitivity to Mechanical Impact  None.
- Sensitivity to Static Discharge  None.
5.5. **Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 6. Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal Precautions**

**For emergency responders**
Use personal protection recommended in Section 8.

#### 6.2. Environmental Precautions

**Environmental Precautions**
See Section 12 for additional Ecological Information.

#### 6.3. Methods and material for containment and cleaning up

**Methods for Containment**
Stop leak if you can do it without risk. If sweeping of a contaminated area is necessary use a dust suppressing agent which does not react with product.

**Methods for Cleaning Up**
Clean up material with vacuum equipped with HEPA filter. Use water as dust suppressant if necessary. Following product recovery, flush area with water.

### 7. Handling and Storage

#### 7.1. Precautions for Safe Handling

**Advice on safe handling**
Avoid generation of dust. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation. Use personal protective equipment as required. Wash thoroughly after handling.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions**
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Guard against dust accumulation of material. Use care in handling/storage.

**Incompatible Materials**

### 8. Exposure Controls/Personal Protection

#### 8.1. Control Parameters

**Exposure guidelines**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attapulgite 12174-11-7</td>
<td>TWA: 1 mg/m³ respirable fraction</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*ACGIH (American Conference of Governmental Industrial Hygienists). OSHA (Occupational Safety and Health Administration of the US Department of Labor). NIOSH IDLH: Immediately Dangerous to Life or Health.*

#### 8.2. Appropriate Engineering Controls

**Engineering controls**
Showers
Eyewash stations
Ventilation systems.
8.3. Individual protection measures, such as personal protective equipment

- **Eye/Face Protection**: Wear safety glasses with side shields (or goggles).
- **Skin and Body Protection**: No special precautions are needed in handling this material.
- **Respiratory Protection**: In case of insufficient ventilation, wear suitable respiratory equipment.
- **Ventilation**: Use local exhaust or general dilution ventilation to control exposure with applicable limits.

8.4. General hygiene considerations
Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

### 9. Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State</strong></td>
<td>powder</td>
<td></td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>odorless</td>
<td></td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Yellow</td>
<td></td>
</tr>
</tbody>
</table>

#### 10. Stability and Reactivity

**10.1. Chemical Stability**
Stable under recommended storage conditions.

**10.2. Reactivity**
No data available
10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to Avoid

None known based on information supplied.

10.5. Incompatible Materials


10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx).

11. Toxicological Information

11.1. Information on Likely Routes of Exposure

Product information

**INHALATION**

May cause irritation of respiratory tract.

**Eye Contact**

May cause irritation.

**Skin contact**

May cause irritation.

**INGESTION**

Ingestion may cause irritation to mucous membranes.

**Acute Toxicity**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium dihydrogen phosphate 7722-76-1</td>
<td>≈ 5750 mg/kg (Rat)</td>
<td>&gt; 7940 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Ammonium sulfate, technical 7783-20-2</td>
<td>≈ 2000 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

11.2. Information on Toxicological Effects

**Symptoms**

No information available.

**11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**sensitization**

No information available.

**Germ Cell Mutagenicity**

No information available.

**carcinogenicity**

Attapulgite (palygorskite fibers) is a hydrated magnesium aluminum silicate. Long palygorskite (attapulgite) fibers (>5 micrometers) are possibly carcinogenic to humans (Group 2B). Short palygorskite (attapulgite) fibers (<5 micrometers) cannot be classified as to their carcinogenicity to humans (Group 3). The attapulgite present in this product contains fibers 0.5-2.5 um range, so would be considered by IARC as Group 3.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attapulgite</td>
<td>-</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12174-11-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IARC (International Agency for Research on Cancer)  
Not classifiable as a human carcinogen

Reproductive Toxicity  
No information available.

STOT - Single Exposure  
No information available.

STOT - Repeated Exposure  
No information available.

Aspiration Hazard  
No information available.

11.4. Numerical Measures of Toxicity - Product information  
The following values are calculated based on chapter 3.1 of the GHS document

| ATEmix (oral) | 19026 mg/kg |
| ATEmix (dermal) | 10081 mg/kg |

12. Ecological Information

12.1. Ecotoxicity

Not classified

7.4% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium sulfate, technical 7783-20-2</td>
<td>-</td>
<td>LC50 96 h 460 - 1000 mg/L Leuciscus idus static; LC50 96 h 123 - 128 mg/L Poecilia reticulata semi-static; LC50 96 h = 126 mg/L Poecilia reticulata; LC50 96 h &gt; 100 mg/L Pimephales promelas; LC50 96 h 32.2 - 41.9 mg/L Oncorhynchus mykiss flow-through; LC50 96 h 5.2 - 8.2 mg/L Oncorhynchus mykiss static; LC50 96 h = 18 mg/L Cyprinus carpio; LC50 96 h = 480 mg/L Brachydanio rerio flow-through; LC50 96 h = 420 mg/L Brachydanio rerio semi-static; LC50 96 h = 250 mg/L Brachydanio rerio</td>
<td>LC50 48 h = 14 mg/L Daphnia magna; EC50 24 h = 423 mg/L Daphnia magna</td>
</tr>
<tr>
<td>Silicic Acid/silica gel, Amorphous 7631-86-9</td>
<td>EC50 72 h = 440 mg/L Pseudokirchneriella subcapitata</td>
<td>LC50 96 h = 5000 mg/L Brachydanio rerio static</td>
<td>EC50 48 h = 7600 mg/L Ceriodaphnia dubia</td>
</tr>
</tbody>
</table>

12.2. Persistence and Degradability

No information available.

12.3. Bioaccumulation

No information available.

12.4. Other Adverse Effects

No information available

13. Disposal Considerations

Revision date 25-May-2015  
Version 25
13.1. Waste Treatment Methods

Disposal of wastes

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Do not reuse container.

14. Transport Information

<table>
<thead>
<tr>
<th>DOT</th>
<th>NOT REGULATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG</td>
<td>NOT REGULATED</td>
</tr>
<tr>
<td>MEX</td>
<td>NOT REGULATED</td>
</tr>
</tbody>
</table>

15. Regulatory Information

15.1. International Inventories

| TSCA   | Complies      |
| DSL/NDSL | Complies     |
| ENCS   | Does not comply |
| IECSC  | Complies      |
| KECL   | Does not comply |
| PICCS  | Complies      |
| AICS   | Complies      |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium dihydrogen phosphate - 7722-76-1</td>
<td>1.0</td>
</tr>
<tr>
<td>Ammonium sulfate, technical - 7783-20-2</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

| Acute Health Hazard | No  |
| Chronic health hazard | No  |
Fire Hazard       No
Sudden Release of Pressure Hazard       No
Reactive Hazard       No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

15.3. US State Regulations
California Proposition 65
Classification only applies to Attapulgite with fibers >5 um. This product contains Attapulgite with fibers <5 um.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attapulgite - 12174-11-7</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium sulfate, technical 7783-20-2</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mica 12001-26-2</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

16. Other information, including date of preparation of the last revision

<table>
<thead>
<tr>
<th>NFPA Health Hazards</th>
<th>flammability</th>
<th>Instability</th>
<th>Physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS Health Hazards</th>
<th>flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

Revision date 25-May-2015
Revision note No information available
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet