

### 1 Identification of substance:

- **Product name:** AMMC (C18H26INO3)
- **Catalog number:** 451700, 451705
- **Manufacturer/Supplier:**  
 BD Biosciences - Discovery Labware  
 6 Henshaw Street  
 Woburn, MA 01801  
 Tel: 877.232.8995
- **Information department:** Technical Services
- **Emergency information:**  
 In case of a chemical emergency, spill, fire, exposure, or accident contact BD Discovery Labware at 800.334.5229, or ChemTrec at 800.424.9300.

### 2 Composition/Data on components:

- **Chemical characterization:**
- **CAS No. Description:**  
 3-[2-(N,N-diethyl-N-methylammonium)ethyl]-7-methoxy-4-methylcoumarin (AMMC) (C18H26INO3)
- **Chemical characterization**

- **Dangerous components:**

3-[2-(N,N-diethyl-N-methylammonium)ethyl]-7-methoxy-4-methylcoumarin (AMMC) (C18H26INO3) Xn; R 20/21/22	100.0%
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- **Additional information** Biological Activity: unknown

### 3 Hazards identification

- **Hazard description:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment**  
 R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- **NFPA ratings (scale 0-4)**



Health = 2  
 Fire = 0  
 Reactivity = 0

### 4 First aid measures

- **General information**  
 Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.
- **After inhalation**  
 Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek medical advice.

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- In case of unconsciousness place patient on side position for transportation.*
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for 15 minutes under running water. Then consult a doctor.
- **After swallowing** Seek immediate medical advice.
- **Information for doctor** Show the product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** Use respiratory protective device.

### 6 Accidental release measures

- **Person-related safety precautions:** Use respiratory protective device.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:**  
Clean the affected area carefully; suitable cleaners are:  
warm water and cleansing agent  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Additional information:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of dust.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 15 - 30 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:**  
Use only in a chemical fume hood. Safety shower and eye bath.
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.

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- **Personal Protective Equipment**
- **General protective and hygienic measures**  
 Keep away from foodstuffs, beverages and feed.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.
- **Breathing equipment:**  
 In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.
- **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing (lab coat).

### 9 Physical and chemical properties:

#### · General Information

<b>Form:</b>	Solid.
<b>Color:</b>	White
<b>Odor:</b>	Characteristic

#### · Change in condition

**Melting point/Melting range:** 245 - 246.5 C  
**Boiling point/Boiling range:** Not determined

- |   |   |
|---|---|
| · <b>Flash point:</b>                     | Not applicable                                |
| · <b>Auto igniting:</b>                   | Product is not self igniting.                 |
| · <b>Danger of explosion:</b>             | Product does not present an explosion hazard. |
| · <b>Vapor pressure:</b>                  | Not applicable                                |
| · <b>Density:</b>                         | Not determined                                |
| · <b>Solubility in / Miscibility with</b> |   |
| <b>Water:</b>                             | Insoluble                                     |
| · <b>pH-value:</b>                        | Not applicable                                |
| · <b>Formula Weight</b>                   | 431   |
| · <b>Organic solvents:</b>                | 0.0 %   |

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: strong oxidizers.
- **Dangerous reactions** No dangerous reactions known

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· **Dangerous products of decomposition:** No dangerous decomposition products known.

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### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful

### 12 Ecological information:

- **Ecotoxicological effects:**
- **Other information:**  
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Generally not hazardous for water.

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
Must not be disposed of with solid waste.  
Dispose of material in accordance with federal (40 CFR 261), state and local requirements.  
This product is not considered a RCRA hazardous waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

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**· Transport/Additional information:**

If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation. However, if a Hazard Class Number is listed the product is regulated.

**15 Regulations****· SARA Section 355 (extremely hazardous substances)**

Substance is not listed.

**· SARA Section 313 (specific toxic chemical listings)**

Substance is not listed.

**· TSCA (Toxic Substances Control Act)**

Substance is not listed.

**· California Proposition 65 - Chemicals known to cause cancer**

Substance is not listed.

**· Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

**· Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

**· Chemicals known to cause developmental toxicity:**

Substance is not listed.

**· Carcinogenicity categories****· IARC (International Agency for Research on Cancer)**

Substance is not listed.

**· NTP (National Toxicology Program)**

Substance is not listed.

**· TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

**· Product related hazard information:**

The product has been classified and marked in accordance with regulations on hazardous materials.

**· Hazard symbols:**

Xn Harmful

**· Hazard-determining components of labeling:**

3-[2-(N,N-diethyl-N-methylammonium)ethyl]-7-methoxy-4-methylcoumarin (AMMC) (C18H26INO3)

**· Risk phrases:**

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

**· Safety phrases:**

7 Keep container tightly closed.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36 Wear suitable protective clothing.

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**Material Safety Data Sheet**  
*acc. to ISO/DIS 11014*

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- **National regulations**
- **Water hazard class:** Generally not hazardous for water.

**16 Other information:**

*Use of Product:*

- synthetic chemical for research only
- analytical standard
- must be handled by suitably qualified personnel

*To the best of our knowledge, the information contained herein is accurate. However, neither Becton, Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

- **Department issuing MSDS:** Safety and Environment Department
- **Contact:** Technical Service Representative

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