

**Order  
Number**

**Customer  
Number**

## 1. Product and Company Identification

<b>Supplier</b>	Manufactured by EMD Biosciences, Inc. 10394 Pacific Center Court San Diego, CA 92121 (858)450-5558/(800)854-3417 FAX: (858)453-3552	<b>Catalog #</b>	218782
		<b>In Case of Emergency</b>	<b>Call Chemtrec® (800)424-9300 (within U.S.A.) (703)527-3887 (outside U.S.A.)</b>

**Product name**      Caspase Substrate Set II, Fluorogenic

## 2. Composition and Information on Ingredients

Ingredient Name	CAS No.	Product No.	EU Symbol	R-Phrases
7-Amino-4-methylcoumarin	26093-31-2	RC051	Xi	R36/37/38
7-Amino-4-(trifluoromethyl)coumarin	53518-15-3	RC086	Xi	R36/37/38

**Note:** See section 8 for occupational exposure limits and section 11 for LC50/LD50 information.

## 3. Hazards Identification

**Primary Hazards and Critical Effects**      :    RC051, RC086      CAUTION!  
MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.  
Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep container closed.  
Use with adequate ventilation. Wash thoroughly after handling.

**Physical/Chemical hazards**      :      Not applicable

**Human Health Hazards**      :    RC051, RC086      Irritating to eyes, respiratory system and skin

**Environmental Hazards**      :      Not applicable

## 4. First Aid Measures

<b>Inhalation</b>	:    RC051, RC086	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion</b>	:    RC051, RC086	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately
<b>Skin Contact</b>	:    RC051, RC086	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
<b>Eye Contact</b>	:    RC051, RC086	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Notes to Medical Doctor</b>	:	Not available.

## 5. Fire-Fighting Measures

- Extinguishing Media** : Use foam or all purpose dry chemicals to extinguish.
- Fire-Fighting Procedures** : Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
- Fire/Explosion Hazards** : Not applicable.
- Hazardous Decomposition Products** : These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...), halogenated compounds.

## 6. Accidental Release Measures

- Personal Precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5).
- Environmental Precautions and Clean-up Methods** : If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimize contact of spilled material with soils to prevent runoff to surface waterways.

**Note:** See section 1 for emergency contact information and section 13 for waste disposal.

## 7. Handling and Storage

- Handling** : RC051, RC086 Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.
- Packaging Materials** : Use original container.

## 8. Exposure Controls and Personal Protection

### Occupational Exposure Limits

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
RC051, RC086	Not available.

- Engineering Controls** : RC051, RC086 No special containment is required. Local exhaust ventilation should be provided

### Personal Protective Equipment

- Respiratory System** : RC051, RC086 Use an approved, properly fitted, HEPA filter cartridge respirator, or a respirator of greater protection if there is the potential to exceed the exposure limit(s)
- Skin and Body** : RC051, RC086 Work uniform or laboratory coat.
- Hands** : RC051, RC086 Use latex gloves. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits)
- Eyes** : RC051, RC086 Safety glasses. Goggles, face shield, or other full-face protection if potential exists for direct exposure to dust.

## 9. Physical and Chemical Properties

### Kit Components

400020: 1 mg Caspase-1 Substrate III  
 218740: 1 mg Caspase-2 Substrate I  
 235425: 1 mg Caspase-3 Substrate II  
 218748: 1 mg Caspase-4 Substrate II  
 218754: 1 mg Caspase-5 Substrate II  
 368059: 1 mg Granzyme B Substrate II  
 218765: 1 mg Caspase-9 Substrate I  
 218760: 1 mg Caspase-6 Substrate I  
 164545: 10 mg 7-Amino-4-methylcoumarin (RC051)  
 164580: 50 mg 7-Amino-4-(trifluoromethyl)coumarin (RC086)

### Flash Point

Not available.

## 10. Stability and Reactivity

<b>Stability</b>	: RC051, RC086	The product is stable.
<b>Conditions and Materials to Avoid</b>	: RC051 RC086	The product is photosensitive. Reactive with oxidizing agents. The product is photosensitive.
<b>Hazardous Decomposition Products</b>	: RC086	These products are halogenated compounds.

## 11. Toxicological Information

### Toxicity Data

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
RC051, RC086	Not available.	Not available.	Not available.	Not available.

**Routes of Entry** : Absorbed through skin. Eye contact. Inhalation

### Acute Effects

<b>Inhalation</b>	: RC051, RC086	Moderately irritating to the respiratory system.
<b>Ingestion</b>	:	Not available.
<b>Skin Contact</b>	: RC051, RC086	Moderately irritating to the skin.
<b>Eye Contact</b>	: RC051, RC086	Moderately irritating to the eyes.

### Chronic Effects

<b>Adverse Effects</b>	:	Not available.
<b>Target Organs</b>	:	Not available.
<b>Carcinogenic Effects</b>	:	Not available.
<b>Mutagenic Effects</b>	:	Not available.
<b>Developmental and Teratogenic Effects</b>	:	Not available.
<b>Reproductive Effects</b>	:	Not available.

**Other Information** : RC051, RC086 Repeated or prolonged exposure is not known to aggravate medical condition.

## 12. Ecological Information

### Ecotoxicity Data

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
RC051, RC086	Not available.	Not available.	Not available.

## 13. Disposal Consideration

**Waste Handling and Disposal** : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## 14. Transport Information

### Air

**IATA-DGR Class** : Not controlled under IATA.

### Packing Group

## 15. Regulatory Information

### EU Regulations

<b>Hazard Symbol(s)</b>	: Xi
<b>Risk Phrases</b>	: R36/37/38- Irritating to eyes, respiratory system and skin.
<b>Safety Phrases</b>	: S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36- Wear suitable protective clothing.

### US Regulations

**Haz-Com Standard** : Not controlled under the HCS (United States).

**EPA** : TSCA 8(b) inventory: 7-Amino-4-methylcoumarin; 7-Amino-4-(trifluoromethyl)coumarin

**State** : Not available.

#### Canadian Regulations

**WHMIS** : Not controlled under WHMIS (Canada).

**CEPA** : CEPA NDSL: 7-Amino-4-methylcoumarin; 7-Amino-4-(trifluoromethyl)coumarin

**Provincial** : No products were found.

## 16. Other Information

Validated by so2 on 4/16/2003.

**Version** : 1.0

**Date of Printing** : 4/16/2003.

#### Notice to Reader

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability 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.*