1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product code                  A050
Product name                  TUNEL Andy Fluor™ 488 Apoptosis Detection Kit

Contact manufacturer

GeneCopoeia Inc.
9620 Medical Center Drive, Suite 101
Rockville, MD 20850
USA

Phone: 301-762-0888
Toll free: 1-866-360-9531
Fax: 301-762-3888

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous/Non-hazardous Components

This product contains no hazardous components.

3. HAZARDS IDENTIFICATION

Emergency Overview
The toxicological properties of these chemicals have not been investigated. All materials and mixtures may present unknown hazards and should be used by workers technically qualified to handle potentially hazardous chemicals.

Principle Routes of Exposure/
Potential Health effects

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Eyes</td>
<td>No information available</td>
</tr>
<tr>
<td>Skin</td>
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</tr>
<tr>
<td>Inhalation</td>
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</tr>
<tr>
<td>Ingestion</td>
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</table>
Specific effects

- Carcinogenic effects: No information available
- Mutagenic effects: No information available
- Reproductive toxicity: No information available
- Sensitization: No information available

Target Organ Effects: No information available

HMIS

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<tr>
<td>Flammability</td>
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<tr>
<td>Reactivity</td>
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</table>

4. FIRST AID MEASURES

- Skin contact: Wash off immediately with plenty of water
- Eye contact: Rinse thoroughly with plenty of water, also under the eyelids.
- Ingestion: Never give anything by mouth to an unconscious person
- Inhalation: Move to fresh air
- Notes to physician: Treat symptomatically

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media: Dry chemical
- Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions: Use personal protective equipment
- Methods for cleaning up: Soak up with inert absorbent material

7. HANDLING AND STORAGE

- Handling: No special handling advice required
- Storage: Keep in properly labeled containers

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

- Exposure limits
- Engineering measures: Ensure adequate ventilation, especially in confined areas
- Personal protective equipment
- Respiratory protection: In case of insufficient ventilation wear suitable respiratory equipment
- Hand protection: Protective gloves
- Eye protection: Safety glasses with side-shields
- Skin and body protection: Lightweight protective clothing
- Hygiene measures: Handle in accordance with good industrial hygiene and safety practice
- Environmental exposure controls: Prevent product from entering drains
9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form

Liquid

Important Health Safety and Environmental Information

Boiling point/range °C No data available °F No data available
Melting point/range °C No data available °F No data available
Flash point °C No data available °F No data available
Autoignition temperature °C No data available °F No data available
Oxidizing properties No information available
Water solubility No data available

10. STABILITY AND REACTIVITY

Stability Stable.
Materials to avoid No information available
Hazardous decomposition products No information available products
Polymerization Hazardous polymerisation does not occur

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Principle Routes of Exposure/
Potential Health effects

Eyes No information available
Skin No information available
Inhalation No information available
Ingestion No information available

Specific effects

Carcinogenic effects No information available
Mutagenic effects No information available
Reproductive toxicity No information available
Sensitization No information available

Target Organ Effects No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity effects No information available.
Mobility No information available.
Biodegradation Inherently biodegradable.
Bioaccumulation Does not bioaccumulate.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations
14. TRANSPORT INFORMATION

<table>
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15. REGULATORY INFORMATION

**International Inventories**

**U.S. Federal Regulations**

**SARA 313**
Not regulated

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**
This product contains the following HAPs:

**U.S. State Regulations**

**California Proposition 65**
This product contains the following Proposition 65 chemicals:

**WHMIS hazard class:**
Non-controlled

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

16. OTHER INFORMATION

This material is sold for research and development purposes only. It is not for any human or animal therapeutic or clinical diagnostic use. It is not intended for food, drug, household, agricultural, or cosmetic use. An individual technically qualified to handle potentially hazardous chemicals must supervise the use of this material.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Since Invitrogen Corporation cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

End of Safety Data Sheet