SAFETY DATA SHEET

1. Identification
Product identifier MEBCYTO Apoptosis Kit (Annexin V-FITC Kit)
Other means of identification
Product code 4700
Recommended use Research use only.
Recommended restrictions None known.
Manufacturer / Importer / Supplier / Distributor information
Manufacturer and Supplier (Asia)
Medical & Biological Laboratories (MBL) Co., Ltd.
4-5-3 Sakae, Naka-ku, Nagoya, Aichi 460-0008, Japan
Telephone number +81-52-238-1901 (Monday to Friday, 9 AM to 5 PM JST)
Fax +81-52-238-1440
E-mail sds-support@mbl.co.jp
URL http://www.mbl.co.jp/e/index.html
Contact person SDS Support
Supplier MBL International Corporation
15A Constitution Way, Woburn, MA 01801, USA
Telephone number +1-800-200-5459, option 3
Fax +1-781-939-6963
E-mail tech@mblintl.com
URL http://www.mblintl.com/
Contact person Technical Service

2. Hazard(s) identification
Physical hazards Not classified.
Health hazards Not classified.
OSHA hazard(s) Not classified.
Label elements
Hazard symbol None.
Signal word None.
Hazard statement None.
Precautionary statement
Prevention Observe good industrial hygiene practices.
Response Wash hands after handling.
Storage Store away from incompatible materials.
Disposal Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC) None.
Supplemental information None.

3. Composition/Information on ingredients
Mixtures
<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium azide</td>
<td>26628-22-8</td>
<td>&lt; 0.1</td>
</tr>
</tbody>
</table>
Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures
Inhalation Move to fresh air. Get medical attention if any discomfort continues.
Skin contact Remove contaminated clothing. Wash skin with soap and water. Get medical attention if irritation develops or persists.
### Minimum Essential Body Cytoplasmic (Annexin V-FITC) Kit

#### Components

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium azide (CAS 26628-22-8)</td>
<td>Ceiling 0.29 mg/m³ 0.11 ppm</td>
</tr>
</tbody>
</table>

#### Eye contact
Rinse immediately with plenty of water, also under the eyelids. Get medical attention if irritation develops or persists.

#### Ingestion
Rinse mouth thoroughly. Get medical attention if any discomfort occurs.

#### Most important symptoms/effects, acute and delayed
Dry skin.

#### Indication of immediate medical attention and special treatment needed
Treat symptomatically.

#### General information
Get medical attention if any discomfort develops.

### 5. Fire-fighting measures

#### Suitable extinguishing media
Use fire-extinguishing media appropriate for surrounding materials.

#### Unsuitable extinguishing media
None known.

#### Specific hazards arising from the chemical
None known.

#### Special protective equipment and precautions for firefighters
Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.

#### Fire-fighting equipment/instructions
Move containers from fire area if you can do it without risk. Use water spray to cool unopened containers. Prevent entry to sewers and public waters. The product is non-combustible.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures
Avoid contact with eyes and prolonged skin contact. Wash hands after handling. Observe good industrial hygiene practices.

#### Methods and materials for containment and cleaning up
Absorb spillage with suitable absorbent material. After removal, flush contaminated area thoroughly with water. For waste disposal, see Section 13 of the SDS.

#### Environmental precautions
Prevent further leakage or spillage if safe to do so.

### 7. Handling and storage

#### Precautions for safe handling
Avoid contact with eyes and prolonged skin contact. Wash hands after handling. Observe good industrial hygiene practices.

#### Conditions for safe storage, including any incompatibilities
Keep container tightly closed. Store away from incompatible materials.

### 8. Exposure controls/personal protection

#### Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium azide (CAS 26628-22-8)</td>
<td>Ceiling</td>
<td>0.29 mg/m³ 0.11 ppm</td>
</tr>
</tbody>
</table>

#### US NIOSH Pocket Guide to Chemical Hazards: Ceiling Limit Value and Time Period (if specified)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium azide (CAS 26628-22-8)</td>
<td>Ceiling</td>
<td>0.3 mg/m³ 0.1 ppm</td>
</tr>
</tbody>
</table>

#### Biological limit values
No biological exposure limits noted for the ingredient(s).

#### Appropriate engineering controls
Provide adequate ventilation. Provide easy access to water supply and eye wash facilities.

#### Individual protection measures, such as personal protective equipment

- **Eye/face protection**: Risk of splashes: Wear safety glasses with side shields.
- **Skin protection**: Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.
Wear appropriate clothing to prevent repeated or prolonged skin contact.

No special precautions. Seek advice from local supervisor.

Wear appropriate thermal protective clothing, when necessary.

Handle in accordance with good industrial hygiene and safety practice. Wash hands after handling. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

9.1 Appearance

**Physical state:** Liquid.

**Form:** Liquid.

**Color:** Colored, dependent on the conjugates. (Alexa Fluor® 488; yellowish green, Alexa Fluor® 594; purple, Alexa Fluor® 647; pale blue, APC; light blue, Azami-Green; pale green, FITC; yellowish green, PE; pink)

**Odor:** Odorless.

**Odor threshold:** Not available.

**pH:** Neutral.

**Melting point/Freezing point:** Not available.

**Initial boiling point and boiling range:** Not available.

**Flash point:** Not available.

**Evaporation rate:** Not available.

**Flammability (solid, gas):** Not applicable.

**Upper/lower flammability or explosive limits**

<table>
<thead>
<tr>
<th>Flammability limit</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>- upper (%)</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Vapor pressure:** Not available.

**Vapor density:** Not available.

**Relative density:** Not available.

**Solubility(ies):** Soluble in water.

**Partition coefficient (n-octanol/water):** Not available.

**Auto-ignition temperature:** Not available.

**Decomposition temperature:** Not available.

**Viscosity:** Not available.

10. Stability and reactivity

**Reactivity:** The product is stable and non reactive under normal conditions of use, storage and transportation.

**Chemical stability:** Stable at normal conditions.

**Possibility of hazardous reactions**

Sodium azide: Reacts with copper, lead, silver, mercury and carbon disulfide to form particularly shock-sensitive compounds. Reacts with acids, forming toxic and explosive hydrogen azide.

**Conditions to avoid:** None known.

**Incompatible materials:** Heavy metals. Acids.

**Hazardous decomposition products:** None known.

11. Toxicological information

**Information on likely routes of exposure**

**Ingestion:** Large quantities: May cause discomfort if swallowed.

**Inhalation:** Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

**Skin contact:** Prolonged contact may cause dryness of the skin.

**Eye contact:** Direct contact with eyes may cause temporary irritation.
Symptoms related to the physical, chemical and toxicological characteristics

Information on toxicological effects

Acute toxicity
- Large quantities: May cause discomfort if swallowed.
- Skin corrosion/irritation: May cause mild skin irritation.
- Serious eye damage/eye irritation: May cause eye irritation.

Respiratory sensitization
- Based on available data, the classification criteria are not met.

Skin sensitization
- Based on available data, the classification criteria are not met.

Germ cell mutagenicity
- No data available.

Carcinogenicity
- Reproductive toxicity: No data available.
- Specific target organ toxicity - single exposure: No data available.
- Specific target organ toxicity - repeated exposure: No data available.
- Aspiration hazard: Based on available data, the classification criteria are not met.
- Chronic effects: Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity
- The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills have a harmful or damaging effect on the environment.

Persistence and degradability
- No data available.

Bioaccumulative potential
- No data available.

Mobility in soil
- No data available.

Mobility in general
- The product is water soluble and may spread in water systems.

Other adverse effects
- The environmental hazard of the product is considered to be limited.

13. Disposal considerations

Disposal instructions
- Dispose of in accordance with all applicable regulations. Do not discharge into drains, water courses or onto the ground.

Local disposal regulations
- Dispose of in accordance with local regulations.

Hazardous waste code
- Not regulated.

Waste from residues / unused products
- Dispose of in accordance with local regulations.

Contaminated packaging
- Dispose of in same manner as unused product.

14. Transport information

DOT
- Not regulated as dangerous goods.

IATA
- Not regulated as dangerous goods.

IMDG
- Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- Not applicable.

15. Regulatory information

US federal regulations
- This product is not hazardous according to OSHA 29CFR 1910.1200.
- All components are on the U.S. EPA TSCA Inventory List.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
<table>
<thead>
<tr>
<th>Hazard categories</th>
<th>Immediate Hazard - No</th>
<th>Delayed Hazard - No</th>
<th>Fire Hazard - No</th>
<th>Pressure Hazard - No</th>
<th>Reactivity Hazard - No</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA 302 Extremely hazardous substance</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARA 311/312 Hazardous chemical</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARA 313 (TRI reporting)</td>
<td>Not regulated.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other federal regulations

- **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**: Not regulated.
- **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**: Not regulated.
- **Safe Drinking Water Act (SDWA)**: Not regulated.
- **Food and Drug Administration (FDA)**: Not regulated.

US state regulations

- **Massachusetts RTK - Substance List**: Not listed.
- **New Jersey Worker and Community Right-to-Know Act**: Not listed.
- **Pennsylvania RTK - Hazardous Substances**: Not listed.
- **Rhode Island RTK**: Not listed.
- **California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT)**: Not listed.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
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</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
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<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
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<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>EC Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
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<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
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<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

<table>
<thead>
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<th>Issue date</th>
<th>01/30/2016</th>
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<td>Revision date</td>
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<tr>
<td>Version</td>
<td>10</td>
</tr>
<tr>
<td>Further information</td>
<td>Not available.</td>
</tr>
<tr>
<td>References</td>
<td>Registry of Toxic Effects of Chemical Substances (RTECS)</td>
</tr>
<tr>
<td></td>
<td>HSDB® - Hazardous Substances Data Bank</td>
</tr>
<tr>
<td>Disclaimer</td>
<td>This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.</td>
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SAFETY DATA SHEET

1. Identification
Product identifier  MEBCYTO Apoptosis Kit (Annexin V-FITC Kit)

Other means of identification
Product code  4700
Recommended use  Research use only.
Recommended restrictions  None known.

Manufacturer / Importer / Supplier / Distributor information
Manufacturer and Supplier (Asia)
Medical & Biological Laboratories (MBL) Co., Ltd.
4-5-3 Sakae, Naka-ku, Nagoya, Aichi 460-0008, Japan
Telephone number  +81-52-238-1901 (Monday to Friday, 9 AM to 5 PM JST)
Fax  +81-52-238-1440
E-mail  sds-support@mbl.co.jp
URL  http://www.mbl.co.jp/e/index.html
Contact person  SDS Support

Supplier
MBL International Corporation
15A Constitution Way, Woburn, MA 01801, USA
Telephone number  +1-800-200-5459, option 3
Fax  +1-781-939-6963
E-mail  tech@mblintl.com
URL  http://www.mblintl.com/
Contact person  Technical Service

2. Hazard(s) identification
Physical hazards  Not classified.
Health hazards  Not classified.
OSHA hazard(s)  Not classified.

Label elements
Hazard symbol  None.
Signal word  None.
Hazard statement  None.
Precautionary statement
Prevention  Observe good industrial hygiene practices.
Response  Wash thoroughly after handling.
Storage  None.
Disposal  None.

3. Composition/Information on ingredients
Mixtures
The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

4. First-aid measures
Inhalation  Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

Skin contact  Remove contaminated clothing. Dry skin with paper towel or similar. Get medical attention if irritation develops or persists.

Eye contact  Rinse immediately with plenty of water, also under the eyelids. Get medical attention if irritation develops or persists.
**Ingestion**

No adverse effects due to ingestion are expected. Get medical attention if any discomfort occurs.

**Most important symptoms/effects, acute and delayed**

Dry skin.

**Indication of immediate medical attention and special treatment needed**

Treat symptomatically.

**General information**

Get medical attention if any discomfort develops.

---

### 5. Fire-fighting measures

**Suitable extinguishing media**

Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media**

None known.

**Specific hazards arising from the chemical**

None known.

**Special protective equipment and precautions for firefighters**

Self-contained breathing apparatus and full protective clothing should be worn when fighting chemical fires. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

**Fire-fighting equipment/instructions**

Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**

The product is non-combustible.

---

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Avoid prolonged and repeated contact. Wear suitable protective clothing. For personal protection, see Section 8 of the SDS.

**Methods and materials for containment and cleaning up**

Absorb spillage with non-combustible, absorbent material. After removal, flush contaminated area thoroughly with water. For waste disposal, see Section 13 of the SDS.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so.

---

### 7. Handling and storage

**Precautions for safe handling**

Avoid prolonged and repeated contact. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Keep container closed.

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### 8. Exposure controls/personal protection

**Occupational exposure limits**

No exposure limits noted for ingredient(s).

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Provide adequate ventilation.

**Individual protection measures, such as personal protective equipment**

- **Eye/face protection**
  - If risk of splashing, wear safety goggles or face shield.

- **Skin protection**
  - Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

- **Hand protection**
  - Wear protective gloves. Wear appropriate clothing to prevent repeated or prolonged skin contact.

- **Other**
  - Wear protective gloves. Wear appropriate thermal protective clothing, when necessary.

- **Respiratory protection**
  - No protection is ordinarily required under normal conditions of use.

- **Thermal hazards**
  - Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

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### 9. Physical and chemical properties

**Appearance**

---
### Physical state
- Liquid.

### Form
- Liquid.

### Color
- Colorless.

### Odor
- Odorless.

### Odor threshold
- Not available.

### pH
- Not available.

### Melting point/freezing point
- Not available.

### Initial boiling point and boiling range
- Not available.

### Flash point
- Not available.

### Evaporation rate
- Not available.

### Flammability (solid, gas)
- Not applicable.

#### Upper/lower flammability or explosive limits
- Flammability limit - lower (%)
  - Not available.
- Flammability limit - upper (%)
  - Not available.

### Vapor pressure
- Not available.

### Vapor density
- Not available.

### Relative density
- Not available.

### Solubility(ies)
- Soluble in water.

### Partition coefficient
- (n-octanol/water)
  - Not available.

### Auto-ignition temperature
- Not available.

### Decomposition temperature
- Not available.

### Viscosity
- Not available.

### 10. Stability and reactivity

#### Reactivity
- The product is stable and non reactive under normal conditions of use, storage and chemical stability. Stable at normal conditions.

#### Possibility of hazardous reactions
- None known.

#### Conditions to avoid
- None known.

#### Incompatible materials
- None known.

#### Hazardous decomposition products
- No hazard in normal industrial use.

### 11. Toxicological information

#### Information on likely routes of exposure
- **Ingestion**
  - Large quantities: May cause discomfort if swallowed.
- **Inhalation**
  - Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
- **Skin contact**
  - Prolonged contact may cause dryness of the skin.
- **Eye contact**
  - Direct contact with eyes may cause temporary irritation.

#### Symptoms related to the physical, chemical and toxicological characteristics
- Dry skin.

#### Information on toxicological effects
- **Acute toxicity**
  - Large quantities: May cause discomfort if swallowed.
- **Skin corrosion/irritation**
  - Prolonged contact may cause dryness of the skin.
- **Serious eye damage/eye irritation**
  - Direct contact with eyes may cause temporary irritation.
- **Respiratory sensitization**
  - No data available.
- **Skin sensitization**
  - Not a skin sensitizer.
- **Germ cell mutagenicity**
  - No data available.
- **Carcinogenicity**
  - No data available.
- **Reproductive toxicity**
  - No data available.
Specific target organ toxicity - single exposure: No data available.
Specific target organ toxicity - repeated exposure: No data available.
Aspiration hazard: No data available.

12. Ecological information
Ecotoxicity: The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills have a harmful or damaging effect on the environment.
Persistence and degradability: No data available.
Bioaccumulative potential: No data available.
Mobility in soil: No data available.
Mobility in general: The product is water soluble and may spread in water systems.
Other adverse effects: No data available.

13. Disposal considerations
Disposal instructions: Dispose of in accordance with all applicable regulations. Do not discharge into drains, water courses or onto the ground.
Local disposal regulations: Dispose of in accordance with local regulations.
Hazardous waste code: Not regulated.
Waste from residues / unused products: Dispose of in accordance with local regulations.
Contaminated packaging: Dispose of in same manner as unused product.

14. Transport information
DOT: Not regulated as dangerous goods.
IATA: Not regulated as dangerous goods.
IMDG: Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

15. Regulatory information
US federal regulations: This product is not hazardous according to OSHA 29CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
Superfund Amendments and Reauthorization Act of 1986 (SARA)
- Hazard categories: Immediate Hazard - No, Delayed Hazard - No, Fire Hazard - No, Pressure Hazard - No, Reactivity Hazard - No
  - SARA 302 Extremely hazardous substance: No
  - SARA 311/312 Hazardous chemical: No
  - SARA 313 (TRI reporting): Not regulated.
Other federal regulations:
- Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.
- Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.
- Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number: Not listed.
- Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c)): Not regulated.
DEA Exempt Chemical Mixtures Code Number
Food and Drug Administration (FDA)

Not regulated.

US state regulations
This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Massachusetts RTK - Substance List
New Jersey Worker and Community Right-to-Know Act
Pennsylvania RTK - Hazardous Substances
Rhode Island RTK
California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT)

Not regulated.
Not regulated.
Not regulated.
Not regulated.
Not listed.

International Inventories

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<td>Korea</td>
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<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
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SAFETY DATA SHEET

1. Identification

Product identifier: MEBCYTO Apoptosis Kit (Annexin V-FITC Kit)
Propidium Iodide (PI)

Other means of identification

Product code: 4700

Recommended use: Research use only.

Recommended restrictions: None known.

Manufacturer / Importer / Supplier / Distributor information

Manufacturer and Supplier (Asia)
Medical & Biological Laboratories (MBL) Co., Ltd.
4-5-3 Sakae, Naka-ku, Nagoya, Aichi 460-0008, Japan

Telephone number: +81-52-238-1901 (Monday to Friday, 9 AM to 5 PM JST)
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URL: http://www.mbl.co.jp/e/index.html
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E-mail: tech@mblintl.com
URL: http://www.mblintl.com/
Contact person: Technical Service

2. Hazard(s) identification

Physical hazards: Not classified.
Health hazards: Not classified.
OSHA hazard(s): Not classified.

Label elements

Hazard symbol: None.
Signal word: None.
Hazard statement: None.

Precautionary statement

Prevention: Observe good industrial hygiene practices.
Response: Wash thoroughly after handling.
Storage: None.
Disposal: None.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/Information on ingredients

Mixtures: The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

4. First-aid measures

Inhalation: Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

Skin contact: Remove contaminated clothing. Dry skin with paper towel or similar. Get medical attention if irritation develops or persists.

Eye contact: Rinse immediately with plenty of water, also under the eyelids. Get medical attention if irritation develops or persists.
Ingestion

No adverse effects due to ingestion are expected. Get medical attention if any discomfort occurs.

Most important symptoms/effects, acute and delayed

Dry skin.

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

General information

Get medical attention if any discomfort develops.

5. Fire-fighting measures

Suitable extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

None known.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing should be worn when fighting chemical fires. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire-fighting equipment/instructions

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

The product is non-combustible.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid prolonged and repeated contact. Wear suitable protective clothing. For personal protection, see Section 8 of the SDS.

Methods and materials for containment and cleaning up

Absorb spillage with non-combustible, absorbent material. After removal, flush contaminated area thoroughly with water. For waste disposal, see Section 13 of the SDS.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling

Avoid prolonged and repeated contact. Wear suitable protective clothing. For personal protection, see Section 8 of the SDS.

Conditions for safe storage, including any incompatibilities

Keep container closed.

8. Exposure controls/personal protection

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection

If risk of splashing, wear safety goggles or face shield.

Skin protection

Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

Hand protection

Wear protective gloves. Wear appropriate clothing to prevent repeated or prolonged skin contact.

Other

Wear appropriate thermal protective clothing, when necessary.

Respiratory protection

No protection is ordinarily required under normal conditions of use.

Thermal hazards

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance
**Physical state**  Liquid.
**Form**  Liquid.
**Color**  Pale red.
**Odor**  Odorless.
**Odor threshold**  Not available.
**pH**  Not available.
**Melting point/freezing point**  Not available.
**Initial boiling point and boiling range**  Not available.
**Flash point**  Not available.
**Evaporation rate**  Not available.
**Flammability (solid, gas)**  Not applicable.

**Upper/lower flammability or explosive limits**
- **Flammability limit**
  - lower (%)  Not available.
  - upper (%)  Not available.
**Vapor pressure**  Not available.
**Vapor density**  Not available.
**Relative density**  Not available.
**Solubility(ies)**  Soluble in water.
**Partition coefficient (n-octanol/water)**  Not available.
**Auto-ignition temperature**  Not available.
**Decomposition temperature**  Not available.
**Viscosity**  Not available.

---

**10. Stability and reactivity**

**Reactivity**
The product is stable and non reactive under normal conditions of use, storage and chemical stability.

**Possibility of hazardous reactions**
Stable at normal conditions.

**Conditions to avoid**
None known.

**Incompatible materials**
None known.

**Hazardous decomposition products**
No hazard in normal industrial use.

---

**11. Toxicological information**

**Information on likely routes of exposure**
- **Ingestion**
  Large quantities: May cause discomfort if swallowed.
- **Inhalation**
  Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
- **Skin contact**
  Prolonged contact may cause dryness of the skin.
- **Eye contact**
  Direct contact with eyes may cause temporary irritation.

**Symptoms related to the physical, chemical and toxicological characteristics**
- **Dry skin.**

**Information on toxicological effects**
- **Acute toxicity**
  Large quantities: May cause discomfort if swallowed.
- **Skin corrosion/irritation**
  Prolonged contact may cause dryness of the skin.
- **Serious eye damage/eye irritation**
  Direct contact with eyes may cause temporary irritation.
- **Respiratory sensitization**
  No data available.
- **Skin sensitization**
  Not a skin sensitizer.
- **Germ cell mutagenicity**
  No data available.
- **Carcinogenicity**
  No data available.
- **Reproductive toxicity**
  No data available.
### 12. Ecological information

<table>
<thead>
<tr>
<th>Category</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific target organ toxicity - single exposure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Specific target organ toxicity - repeated exposure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>No data available.</td>
</tr>
<tr>
<td>Mobility in soil</td>
<td>No data available.</td>
</tr>
<tr>
<td>Mobility in general</td>
<td>The product is water soluble and may spread in water systems.</td>
</tr>
<tr>
<td>Other adverse effects</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

#### Ecotoxicity
The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills have a harmful or damaging effect on the environment.

#### Persistence and degradability
No data available.

#### Bioaccumulative potential
No data available.

#### Mobility in soil
No data available.

### 13. Disposal considerations

<table>
<thead>
<tr>
<th>Category</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposal instructions</td>
<td>Dispose of in accordance with all applicable regulations. Do not discharge into drains, water courses or onto the ground.</td>
</tr>
<tr>
<td>Local disposal regulations</td>
<td>Dispose of in accordance with local regulations.</td>
</tr>
<tr>
<td>Hazardous waste code</td>
<td>Not regulated.</td>
</tr>
<tr>
<td>Waste from residues / unused products</td>
<td>Dispose of in accordance with local regulations.</td>
</tr>
<tr>
<td>Contaminated packaging</td>
<td>Dispose of in same manner as unused product.</td>
</tr>
</tbody>
</table>

### 14. Transport information

<table>
<thead>
<tr>
<th>Category</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>Not regulated as dangerous goods.</td>
</tr>
<tr>
<td>IATA</td>
<td>Not regulated as dangerous goods.</td>
</tr>
<tr>
<td>IMDG</td>
<td>Not regulated as dangerous goods.</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

### 15. Regulatory information

<table>
<thead>
<tr>
<th>Category</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>US federal regulations</td>
<td>This product is not hazardous according to OSHA 29CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.</td>
</tr>
<tr>
<td>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</td>
<td>Not regulated.</td>
</tr>
<tr>
<td>CERCLA Hazardous Substance List (40 CFR 302.4)</td>
<td>Not listed.</td>
</tr>
<tr>
<td>Superfund Amendments and Reauthorization Act of 1986 (SARA)</td>
<td>Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No</td>
</tr>
<tr>
<td>Hazard categories</td>
<td>SARA 302 Extremely hazardous substance - No SARA 311/312 Hazardous chemical - No SARA 313 (TRI reporting) - Not regulated.</td>
</tr>
<tr>
<td>Other federal regulations</td>
<td>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List - Not regulated. Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) - Not regulated. Safe Drinking Water Act (SDWA) - Not regulated. Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number - Not listed. Drug Enforcement Administration (DEA). List 1 &amp; 2 Exempt Chemical Mixtures (21 CFR 1310.12(c)) - Not regulated.</td>
</tr>
</tbody>
</table>
MEBCYTO Apoptosis Kit (Annexin V-FITC Kit) Revised: 09/30/2016, 15/15

DEA Exempt Chemical Mixtures Code Number
Food and Drug Administration (FDA)
Not regulated.

US state regulations
This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Massachusetts RTK - Substance List
Not regulated.

New Jersey Worker and Community Right-to-Know Act
Not regulated.

Pennsylvania RTK - Hazardous Substances
Not regulated.

Rhode Island RTK
Not regulated.

California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT)
Not listed.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>EC Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date 01/30/2016
Revision date 09/30/2016
Version 10
Further information Not available.
Disclaimer This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.