SAFETY DATA SHEET

1. Identification
Product identifier Anti-V5-tag mAb-Magnetic Beads

Other means of identification
   Product code M215-11
   Recommended use Research use only.
   Recommended restrictions None known.

Manufacturer / Importer / Supplier / Distributor information
   Manufacturer and Supplier Medical & Biological Laboratories (MBL) Co., Ltd.
   Supplier (Asia) 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

Manufacturer and Supplier MBL International Corporation
   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 None.
     Disposal None.
   Hazard(s) not otherwise classified (HNOC) None.

3. Composition/Information on ingredients
Mixtures
   Chemical nameCAS number %
   reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one55965-84-9 < 0.1
   and 2-methyl-4-isothiazolin-3-one

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 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
Drink plenty of water. 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 that without risk. Use water spray to cool unopened containers. Prevent entry to sewers and public waters.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid contact with eyes and prolonged skin contact. For personal protection, see Section 8 of the SDS.

Methods and materials for containment and cleaning up
Absorb spillage with suitable absorbent material. Flush contaminated area thoroughly with water, following removal of the spillage. For waste disposal, see Section 13 of the SDS. Prevent further leakage or spillage if safe to do so.

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

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 that without risk. Use water spray to cool unopened containers. Prevent entry to sewers and public waters.

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.

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
Ensure adequate ventilation is available, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection
Risk of splashes: Wear safety glasses with side shields.

Skin protection

Hand protection
Risk of contact: Wear protective gloves. Suitable gloves can be recommended by the glove supplier.

Other

Respiratory protection
Where excessive vapor, mist or dust may result, use NIOSH approved respiratory protection equipment.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
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
### Appearance

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Opaque suspension (50% beads).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Suspension.</td>
</tr>
<tr>
<td>Color</td>
<td>White (agarose beads). Dark brown (magnetic beads, magnetic agarose beads).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Odor</th>
<th>Odorless.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Neutral.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

#### Upper/lower flammability or explosive limits

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

<table>
<thead>
<tr>
<th>Vapor pressure</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

#### 10. Stability and reactivity

**Reactivity**

The product is non-reactive under normal conditions of use, storage and transport.

**Chemical stability**

Stable at normal conditions.

**Possibility of hazardous reactions**

Hazardous polymerization does not occur. Hazardous reactions do not occur.

**Conditions to avoid**

None known.

**Incompatible materials**

None known.

**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**

Dry skin.

**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**: No data available.
- **Skin sensitization**: No data available.
- **Germ cell mutagenicity**: No data available.
- **Carcinogenicity**: No data available.
- **Reproductive toxicity**: 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
Expected to be highly mobile in soil.

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

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.

- TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
  Not regulated.
  Not listed.
- CERCLA Hazardous Substance List (40 CFR 302.4)
  Not listed.

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.
- Safe Drinking Water Act (SDWA)
  Not regulated.
- 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.

<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>No</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>No</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>No</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 | 12/01/2015 |
| Revision date | 09/30/2016 |
| Version | 10 |
| Further information | Not available. |
| References | HSDB® - Hazardous Substances Data Bank  
Registry of Toxic Effects of Chemical Substances (RTECS)  
C&L Inventory database |

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.