SAFETY DATA SHEET

1. Identification

Product identifier Anti-IgG (H+L chain) (Rabbit) pAb-HRP

Other means of identification

Product code 458
Recommended use Research use only.
Recommended restrictions None known.

Manufacturer / Importer / Supplier / Distributor information

Manufacturer and 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

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 None.
Disposal None.

Hazard(s) not otherwise classified (HNOC) 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>reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one</td>
<td>55965-84-9</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 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.
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.

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 | Risk of contact: Wear protective gloves. Suitable gloves can be recommended by the glove supplier.
Hand protection | Wear appropriate clothing to prevent repeated or prolonged skin contact.
Other | Where excessive vapor, mist or dust may result, use NIOSH approved respiratory protection equipment.
Respiratory protection | Wear appropriate thermal protective clothing, when necessary.
Thermal hazards | 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>Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>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, HRP; light brown)</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<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>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td></td>
</tr>
<tr>
<td>Flammability limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>- lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>- upper (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
</tr>
<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>(n-octanol/water)</td>
<td></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

<table>
<thead>
<tr>
<th>Ingestion</th>
<th>Large quantities: May cause discomfort if swallowed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Under normal conditions of intended use, this material is not expected to be an inhalation hazard.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Prolonged contact may cause dryness of the skin.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Direct contact with eyes may cause temporary irritation.</td>
</tr>
<tr>
<td>Symptoms related to the physical, chemical and toxicological characteristics</td>
<td>Dry skin.</td>
</tr>
</tbody>
</table>

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 | 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.

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  
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.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)  
Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)  
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)  
Immediate Hazard - No
Delay:ed 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.
<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

<table>
<thead>
<tr>
<th>Issue date</th>
<th>09/28/2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>09/30/2016</td>
</tr>
<tr>
<td>Version</td>
<td>10</td>
</tr>
<tr>
<td>Further information</td>
<td>Not available.</td>
</tr>
<tr>
<td>References</td>
<td>HSDB® - Hazardous Substances Data Bank, Registry of Toxic Effects of Chemical Substances (RTECS), C&amp;L Inventory database</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>
</tr>
</tbody>
</table>