



## SAFETY DATA SHEET

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### 1. Identification

<b>Product identifier</b>	Plant Viral dsRNA Enrichment Kit Binding Buffer, Lysis Buffer, Wash Buffer, TE Buffer
<b>Other means of identification</b>	
<b>Product code</b>	5345-200
<b>Recommended use</b>	Research use only.
<b>Recommended restrictions</b>	None known.
<b>Manufacturer / Importer / Supplier / Distributor information</b>	
<b>Manufacturer and Supplier (Asia)</b>	Medical & Biological Laboratories (MBL) Co., Ltd. 4-5-3 Sakae, Naka-ku, Nagoya, Aichi 460-0008, Japan
<b>Telephone number</b>	+81-52-238-1901 (Monday to Friday, 9 AM to 5 PM JST)
<b>Fax</b>	+81-52-238-1440
<b>E-mail</b>	sds-support@mbi.co.jp
<b>URL</b>	<a href="http://www.mbl.co.jp/e/index.html">http://www.mbl.co.jp/e/index.html</a>
<b>Contact person</b>	SDS Support
<b>Supplier</b>	MBL International Corporation 15A Constitution Way, Woburn, MA 01801, USA
<b>Telephone number</b>	+1-800-200-5459, option 3
<b>Fax</b>	+1-781-939-6963
<b>E-mail</b>	tech@mblintl.com
<b>URL</b>	<a href="http://www.mblintl.com/">http://www.mblintl.com/</a>
<b>Contact person</b>	Technical Service

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### 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>OSHA hazard(s)</b>	Not classified.
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	None.
<b>Precautionary statement</b>	
<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash thoroughly after handling.
<b>Storage</b>	None.
<b>Disposal</b>	None.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None.

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### 3. Composition/Information on ingredients

#### Mixtures

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

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### 4. First-aid measures

<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin contact</b>	Remove contaminated clothing. Dry skin with paper towel or similar. Get medical attention if irritation develops or persists.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids. Get medical attention if irritation develops or persists.

<b>Ingestion</b>	No adverse effects due to ingestion are expected. Get medical attention if any discomfort occurs.
<b>Most important symptoms/ effects, acute and delayed</b>	Dry skin.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Get medical attention if any discomfort develops.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	None known.
<b>Special protective equipment and precautions for firefighters</b>	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.
<b>Fire-fighting equipment/ instructions</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	The product is non-combustible.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Avoid prolonged and repeated contact. Wear suitable protective clothing. For personal protection, see Section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Absorb spillage with non-combustible, absorbent material. After removal, flush contaminated area thoroughly with water. For waste disposal, see Section 13 of the SDS.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid prolonged and repeated contact. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep container closed.

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Provide adequate ventilation.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	If risk of splashing, wear safety goggles or face shield.
<b>Skin protection</b>	
<b>Hand protection</b>	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.
<b>Other</b>	Wear protective gloves. Wear appropriate clothing to prevent repeated or prolonged skin contact.
<b>Respiratory protection</b>	No protection is ordinarily required under normal conditions of use.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	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**

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Colorless.
<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit</b>	Not available.
<b>- lower (%)</b>	
<b>Flammability limit</b>	Not available.
<b>- upper (%)</b>	
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Soluble in water.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

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## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non reactive under normal conditions of use, storage and
<b>Chemical stability</b>	Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	None known.
<b>Conditions to avoid</b>	None known.
<b>Incompatible materials</b>	None known.
<b>Hazardous decomposition products</b>	No hazard in normal industrial use.

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## 11. Toxicological information

### Information on likely routes of exposure

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

### Information on toxicological effects

<b>Acute toxicity</b>	Large quantities: May cause discomfort if swallowed.
<b>Skin corrosion/irritation</b>	Prolonged contact may cause dryness of the skin.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory sensitization</b>	No data available.
<b>Skin sensitization</b>	Not a skin sensitizer.
<b>Germ cell mutagenicity</b>	No data available.
<b>Carcinogenicity</b>	No data available.
<b>Reproductive toxicity</b>	No data available.

<b>Specific target organ toxicity</b> - single exposure	No data available.
<b>Specific target organ toxicity</b> - repeated exposure	No data available.
<b>Aspiration hazard</b>	No data available.

## 12. Ecological information

<b>Ecotoxicity</b>	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.
<b>Persistence and degradability</b>	No data available.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Mobility in general</b>	The product is water soluble and may spread in water systems.
<b>Other adverse effects</b>	No data available.

## 13. Disposal considerations

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

## 14. Transport information

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

## 15. Regulatory information

<b>US federal regulations</b>	This product is not hazardous according to OSHA 29CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.	
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>		Not regulated.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>		Not listed.
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>		Not listed.
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>		
<b>Hazard categories</b>		Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
<b>SARA 302 Extremely hazardous substance</b>		No
<b>SARA 311/312 Hazardous chemical</b>		No
<b>SARA 313 (TRI reporting)</b>		Not regulated.
<b>Other federal regulations</b>		
<b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>		Not regulated.
<b>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)</b>		Not regulated.
<b>Safe Drinking Water Act (SDWA)</b>		Not regulated.
<b>Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number</b>		Not listed.
<b>Drug Enforcement Administration (DEA). List 1 &amp; 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))</b>		Not regulated.

**DEA Exempt Chemical Mixtures Code Number**  
**Food and Drug Administration (FDA)**

Not regulated.  
 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**

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

\*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).

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## 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.



## SAFETY DATA SHEET

### 1. Identification

<b>Product identifier</b>	Plant Viral dsRNA Enrichment Kit Glutathione resin
<b>Other means of identification</b>	
<b>Product code</b>	5345-200
<b>Recommended use</b>	Research use only.
<b>Recommended restrictions</b>	None known.
<b>Manufacturer / Importer / Supplier / Distributor information</b>	
<b>Manufacturer and Supplier (Asia)</b>	Medical & Biological Laboratories (MBL) Co., Ltd. 4-5-3 Sakae, Naka-ku, Nagoya, Aichi 460-0008, Japan
<b>Telephone number</b>	+81-52-238-1901 (Monday to Friday, 9 AM to 5 PM JST)
<b>Fax</b>	+81-52-238-1440
<b>E-mail</b>	sds-support@mbi.co.jp
<b>URL</b>	<a href="http://www.mbl.co.jp/e/index.html">http://www.mbl.co.jp/e/index.html</a>
<b>Contact person</b>	SDS Support
<b>Supplier</b>	MBL International Corporation 15A Constitution Way, Woburn, MA 01801, USA
<b>Telephone number</b>	+1-800-200-5459, option 3
<b>Fax</b>	+1-781-939-6963
<b>E-mail</b>	tech@mblintl.com
<b>URL</b>	<a href="http://www.mblintl.com/">http://www.mblintl.com/</a>
<b>Contact person</b>	Technical Service

### 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>OSHA hazard(s)</b>	Not classified.
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	None.
<b>Precautionary statement</b>	
<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash hands after handling.
<b>Storage</b>	None.
<b>Disposal</b>	None.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None.

### 3. Composition/Information on ingredients

#### Mixtures

Chemical name	CAS number	%
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one	55965-84-9	< 0.1

<b>Composition comments</b>	All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
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### 4. First-aid measures

<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
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<b>Skin contact</b>	Remove contaminated clothing. Dry skin with paper towel or similar. Get medical attention if irritation develops or persists.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids. Get medical attention if irritation develops or persists.
<b>Ingestion</b>	Drink plenty of water. Get medical attention if any discomfort occurs.
<b>Most important symptoms/ effects, acute and delayed</b>	Dry skin.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Get medical attention if any discomfort develops.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	None known.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/ instructions</b>	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

<b>Personal precautions, protective equipment and emergency procedures</b>	Avoid contact with eyes and prolonged skin contact. For personal protection, see Section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	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.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid contact with eyes and prolonged skin contact. Wash hands after handling. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep container tightly closed.

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Ensure adequate ventilation is available, especially in confined areas.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Risk of splashes: Wear safety glasses with side shields.
<b>Skin protection</b>	
<b>Hand protection</b>	Risk of contact: Wear protective gloves. Suitable gloves can be recommended by the glove supplier.
<b>Other</b>	Wear appropriate clothing to prevent repeated or prolonged skin contact.
<b>Respiratory protection</b>	Where excessive vapor, mist or dust may result, use NIOSH approved respiratory protection equipment.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	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**

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Colorless.
<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Neutral.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit</b>	Not available.
<b>- lower (%)</b>	
<b>Flammability limit</b>	Not available.
<b>- upper (%)</b>	
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Soluble in water.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

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**10. Stability and reactivity**

<b>Reactivity</b>	The product is non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur. Hazardous reactions do not occur.
<b>Conditions to avoid</b>	None known.
<b>Incompatible materials</b>	None known.
<b>Hazardous decomposition products</b>	None known.

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**11. Toxicological information****Information on likely routes of exposure**

<b>Ingestion</b>	Large quantities: May cause discomfort if swallowed.
<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin contact</b>	Prolonged contact may cause dryness of the skin.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms related to the physical, chemical and toxicological characteristics

**Information on toxicological effects**

<b>Acute toxicity</b>	Large quantities: May cause discomfort if swallowed.
<b>Skin corrosion/irritation</b>	May cause mild skin irritation.
<b>Serious eye damage/eye</b>	May cause eye irritation.
<b>Respiratory sensitization</b>	No data available.
<b>Skin sensitization</b>	No data available.
<b>Germ cell mutagenicity</b>	No data available.
<b>Carcinogenicity</b>	No data available.
<b>Reproductive toxicity</b>	No data available.

<b>Specific target organ toxicity</b> - single exposure	No data available.
<b>Specific target organ toxicity</b> - repeated exposure	No data available.
<b>Aspiration hazard</b>	No data available.

## 12. Ecological information

<b>Ecotoxicity</b>	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.
<b>Persistence and degradability</b>	No data available.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	Expected to be highly mobile in soil.
<b>Mobility in general</b>	The product is water soluble and may spread in water systems.
<b>Other adverse effects</b>	No data available.

## 13. Disposal considerations

<b>Disposal instructions</b>	Dispose of in accordance with all applicable regulations. Do not discharge into drains, water
<b>Local disposal regulations</b>	Dispose of in accordance with local regulations.
<b>Hazardous waste code</b>	Not regulated.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations.
<b>Contaminated packaging</b>	Dispose of in same manner as unused product.

## 14. Transport information

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

## 15. Regulatory information

<b>US federal regulations</b>	This product is not hazardous according to OSHA 29CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.	
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>		Not regulated.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>		Not listed.
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>		Not listed.
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>		
<b>Hazard categories</b>	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No	
<b>SARA 302 Extremely hazardous substance</b>		No
<b>SARA 311/312 Hazardous chemical</b>		No
<b>SARA 313 (TRI reporting)</b>		Not regulated.
<b>Other federal regulations</b>		
<b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>		Not regulated.
<b>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)</b>		Not regulated.
<b>Safe Drinking Water Act (SDWA)</b>		Not regulated.
<b>Food and Drug Administration (FDA)</b>		Not regulated.
<b>US state regulations</b>	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.	
<b>Massachusetts RTK - Substance List</b>		Not regulated.
<b>New Jersey Worker and Community Right-to-Know Act</b>		Not regulated.

**Pennsylvania RTK - Hazardous Substances**

Not regulated.

**Rhode Island RTK**

Not regulated.

**California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT)**

Not listed.

**International inventories**

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

\*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).

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**16. Other information****Issue date** 01/30/2016**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.



## SAFETY DATA SHEET

### 1. Identification

<b>Product identifier</b>	Plant Viral dsRNA Enrichment Kit Elution Buffer
<b>Other means of identification</b>	
<b>Product code</b>	5345-200
<b>Recommended use</b>	Research use only.
<b>Recommended restrictions</b>	None known.
<b>Manufacturer / Importer / Supplier / Distributor information</b>	
<b>Manufacturer and Supplier (Asia)</b>	Medical & Biological Laboratories (MBL) Co., Ltd. 4-5-3 Sakae, Naka-ku, Nagoya, Aichi 460-0008, Japan
<b>Telephone number</b>	+81-52-238-1901 (Monday to Friday, 9 AM to 5 PM JST)
<b>Fax</b>	+81-52-238-1440
<b>E-mail</b>	sds-support@mbi.co.jp
<b>URL</b>	<a href="http://www.mbl.co.jp/e/index.html">http://www.mbl.co.jp/e/index.html</a>
<b>Contact person</b>	SDS Support
<b>Supplier</b>	MBL International Corporation 15A Constitution Way, Woburn, MA 01801, USA
<b>Telephone number</b>	+1-800-200-5459, option 3
<b>Fax</b>	+1-781-939-6963
<b>E-mail</b>	tech@mblintl.com
<b>URL</b>	<a href="http://www.mblintl.com/">http://www.mblintl.com/</a>
<b>Contact person</b>	Technical Service

### 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Not classified.	
<b>OSHA hazard(s)</b>	Not classified.	
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 3
<b>Label elements</b>		
<b>Hazard symbol</b>	None.	
<b>Signal word</b>	None.	
<b>Hazard statement</b>	Harmful to aquatic life.	
<b>Precautionary statement</b>		
<b>Prevention</b>	Avoid release to the environment.	
<b>Response</b>	Wash hands after handling.	
<b>Storage</b>	Store away from incompatible materials.	
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.	
<b>Hazard(s) not otherwise classified (HNOC)</b>	None.	
<b>Supplemental information</b>	None.	

### 3. Composition/Information on ingredients

#### Mixtures

Chemical name	CAS number	%
Sodium dodecyl sulphate	151-21-3	<1

<b>Composition comments</b>	All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
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### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Get medical attention if any discomfort continues.
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<b>Skin contact</b>	Wash contact areas with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids. Get medical attention if irritation develops or persists.
<b>Ingestion</b>	Rinse mouth thoroughly. Get medical attention if any discomfort continues.
<b>Most important symptoms/ effects, acute and delayed</b>	Dry skin.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Get medical attention if any discomfort develops.

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## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Irritating and toxic gases or fumes may be released during a fire. Carbon oxides. Sulfur oxides.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/ instructions</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted. The product is not flammable.

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## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Avoid breathing mist. Avoid contact with eyes and prolonged skin contact.
<b>Methods and materials for containment and cleaning up</b>	Prevent product from entering drains. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. After removal flush contaminated area thoroughly with water. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste for proper disposal.
<b>Environmental precautions</b>	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Do not allow to enter drains, sewers or watercourses.

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## 7. Handling and storage

<b>Precautions for safe handling</b>	Use with adequate ventilation. Do not breathe mist or vapor. Do not get this material in contact with eyes. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store away from incompatible materials (see Section 10 of the SDS). Store in tightly closed original container in a dry, cool and well-ventilated place. Store away from incompatible materials.

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## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors. Provide easy access to water supply and eye wash facilities.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear approved safety glasses or goggles.

<b>Skin protection</b>	
<b>Hand protection</b>	Wear protective gloves. Nitrile or neoprene gloves are recommended.
<b>Other</b>	Wear appropriate clothing to prevent repeated or prolonged skin contact.
<b>Respiratory protection</b>	In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practices. Wash hands after handling. Routinely wash work clothing and protective equipment to remove contaminants.

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## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Colorless.
<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Neutral.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.

### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Soluble in water.
<b>Partition coefficient (<i>n</i>-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.

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## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non reactive under normal conditions of use, storage and
<b>Chemical stability</b>	Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	None known.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	None known.

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## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Inhalation</b>	May cause damage to organs through prolonged or repeated exposure by inhalation.
<b>Skin contact</b>	May cause dryness of the skin.
<b>Eye contact</b>	May cause temporary eye 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.

Components	Species	Test Results
Sodium dodecyl sulphate (CAS 151-21-3)		
<b>Acute</b>		
Oral	LD50 Rat	1,288 mg/kg
Dermal	LD50 Rabbit	580 mg/kg

**Skin corrosion/irritation** May cause mild skin irritation.

**Serious eye damage/eye irritation** May cause eye irritation.

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** Not a skin sensitiser.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. IARC not listed.

**IARC Monographs. Overall Evaluation of Carcinogenicity** Not listed.

**NTP Report on Carcinogens** Not listed.

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

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

## 12. Ecological information

### Ecotoxicity

Components		Species	Test Results
Sodium dodecyl sulphate (CAS 151-21-3)			
Aquatic			
Crustacea	EC50	Acartia tonsa	0.12 mg/L, 96 hours
	LC50	Water flea ( <i>Daphnia magna</i> )	8.4 - 11 mg/L, 48 hours
Fish	LC50	Carp, hawk fish ( <i>Cirrhinus mrigala</i> )	1.36 mg/L, 96 hours

**Persistence and degradability** No data available.

### Bioaccumulative potential

#### Partition coefficient n-octanol / water (log Kow)

Sodium dodecyl sulphate (CAS 151-21-3) 1.6

**Mobility in soil** This product is water soluble and may disperse 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 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.

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## 14. Transport information

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

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## 15. Regulatory information

<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
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<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated.
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<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not regulated.
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<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	Not listed.
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### Superfund Amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard categories</b>	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
<b>SARA 302 Extremely hazardous substance</b>	Not listed.
<b>SARA 311/312 Hazardous chemical</b>	No.
<b>SARA 313 (TRI reporting)</b>	Not regulated.

### Other federal regulations

<b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>	Not regulated.
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<b>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)</b>	Not regulated.
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<b>Safe Drinking Water Act (SDWA)</b>	Not regulated.
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### US state regulations

<b>Massachusetts RTK - Substance List</b>	Not regulated.
<b>New Jersey Worker and Community Right-to-Know Act</b>	Not regulated.
<b>Pennsylvania RTK - Hazardous Substances Right-to-Know Law</b>	Not regulated.
<b>Rhode Island RTK</b>	Not regulated.
<b>California Proposition 65</b>	Not regulated.

### International Inventories

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

\*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).

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## 16. Other information

<b>Issue date</b>	01/30/2016
<b>Revision date</b>	09/30/2016
<b>Version</b>	10

**List of abbreviations**

EC50: Effective Concentration, 50%  
LC50: Lethal Concentration, 50%.  
LD50: Lethal Dose, 50%.

**Further information**

Not available.

**References**

HSDB® - Hazardous Substances Data Bank  
Registry of Toxic Effects of Chemical Substances (RTECS)  
IARC Monographs. Overall Evaluation of Carcinogenicity

**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.