



## SAFETY DATA SHEET

### 1. Identification

<b>Product identifier</b>	CycLex Cellular BrdU ELISA Kit Ver.2 Fixing/Denaturing Solution	
<b>Other means of identification</b>		
<b>Product code</b>	CY-1142V2	
<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@mbl.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>	Flammable liquids	Category 2
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
<b>OSHA hazard(s)</b>	Not classified.	

#### Label elements

##### Hazard symbol



##### Signal word

Danger

##### Hazard statement

Highly flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation.

##### Precautionary statement

###### Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash thoroughly after handling. Wear protective gloves/eye protection/face protection.

###### Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.

###### Storage

Store in a well-ventilated place. Keep cool.

###### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

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

### 3. Composition/Information on ingredients

#### Mixtures

Chemical name	CAS number	%
Ethanol	64-17-5	60 - 70
Denaturant	Proprietary	Proprietary

**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

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/ effects, acute and delayed</b>	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Get medical attention if any discomfort continues.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<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>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
<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>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapor.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. 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. Wipe up with absorbent material (e.g. cloth, fleece).
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

**Precautions for safe handling** Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethanol (CAS 64-17-5)	PEL	1,900 mg/m3 1,000 ppm
Denaturant	PEL	2 mg/m3

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Ethanol (CAS 64-17-5)	STEL	1,000 ppm
Denaturant	Ceiling	2 mg/m3

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethanol (CAS 64-17-5)	TWA	1,900 mg/m3 1,000 ppm
Denaturant	Ceiling	2 mg/m3

**Biological limit values** No biological exposure limits noted for the ingredient(s).  
**Appropriate engineering controls** Provide adequate ventilation. Explosion-proof general and local exhaust ventilation.

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

**Eye/face protection** Wear safety glasses with side shields (or goggles).  
**Skin protection**  
**Hand protection** Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.  
**Other** Wear suitable protective clothing.  
**Respiratory protection** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.  
**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

**Physical state** Liquid.  
**Form** Liquid.  
**Color** Colorless.

**Odor** Alcohol.  
**Odor threshold** Not available.  
**pH** Strong alkali.  
**Melting point/freezing point** Not available.  
**Initial boiling point and boiling range** 78.5 °C (173.3 °F) Ethanol

<b>Flash point</b>	15.0 - 20.0 °C (59.0 - 68.0 °F) (70% Ethanol in water) estimated
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive 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 (n-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.

**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 under normal temperature conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

**11. Toxicological information**

**Information on likely routes of exposure**

<b>Ingestion</b>	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye irritation.

**Symptoms related to the physical, chemical and toxicological characteristics** Headache. Severe eye and skin irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.

**Information on toxicological effects**

**Acute toxicity**

Components		Species	Test Results
Ethanol (CAS 64-17-5)			
<b>Acute</b>			
Oral	LD50	Rat	7,000 - 11,000 mg/kg
Inhalation	LC50	Mouse	39 g/m3, 4 hours
Denaturant			
<b>Acute</b>			
Oral	LDLo	Rabbit	500 mg/kg (Calculated)
Dermal	LC50	Rabbit	1,350 mg/kg (Calculated)

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory sensitization</b>	Based on available data, the classification criteria are not met.
<b>Skin sensitization</b>	Based on available data, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	Due to lack of data the classification is not possible.
<b>Carcinogenicity</b>	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	Not listed.
<b>NTP Report on Carcinogens</b>	Not listed.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not listed.
<b>Reproductive toxicity</b>	Due to lack of data the classification is not possible.
<b>Specific target organ toxicity - single exposure</b>	Due to lack of data the classification is not possible.
<b>Specific target organ toxicity - repeated exposure</b>	Due to lack of data the classification is not possible.
<b>Aspiration hazard</b>	Due to lack of data the classification is not possible.
<b>Chronic effects</b>	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.

Components		Species	Test Results
Ethanol (CAS 64-17-5)			
<b>Aquatic</b>			
Crustacea	LC50	<i>Ceriodaphnia dubia</i>	5,012 mg/L, 48 hours
		<i>Daphnia magna</i>	454 mg/L, 11 days
Fish	NOEC	<i>Ceriodaphnia dubia</i>	9.6 mg/L
	LC50	<i>Pimephales promelas</i>	13,480 mg/L, 96 hours
Denaturant			
<b>Aquatic</b>			
Crustacea	EC50	<i>Ceriodaphnia dubia</i>	34.59-47.13 mg/L, 48 hours
Fish	LC50	<i>Gambusia affinis</i>	125 mg/L, 96 hours

**Persistence and degradability** No data available.

**Bioaccumulative potential**

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

Ethanol (CAS 64-17-5) -0.31

**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 other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**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**

**UN number** UN1170

<b>UN proper shipping name</b>	Ethanol solution
<b>Transport hazard class(es)</b>	
<b>Classes</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	24, IB2, T4, TP1
<b>Packaging exceptions</b>	4b, 150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

**IATA**

<b>UN number</b>	UN1170
<b>UN proper shipping name</b>	Ethanol solution
<b>Transport hazard class(es)</b>	
<b>Classes</b>	3
<b>Subsidiary risk</b>	-
<b>Packaging group</b>	II
<b>Environmental hazards</b>	No
<b>ERG Code</b>	3L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

<b>UN number</b>	UN1170
<b>UN proper shipping name</b>	Ethanol solution
<b>Transport hazard class(es)</b>	
<b>Classes</b>	3
<b>Subsidiary risk</b>	-
<b>Packaging group</b>	II
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No
<b>EmS</b>	F-E, S-D
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

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

**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.	
<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 regulated.
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>		Not regulated.
		Denaturant      Listed.
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>		
<b>Hazard categories</b>		Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
<b>SARA 302 Extremely hazardous substance</b>		Not listed.
<b>SARA 311/312 Hazardous chemical</b>		Yes
<b>SARA 313 (TRI reporting)</b>		Not regulated.
<b>Other federal regulations</b>		

**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.

**US state regulations**

**Massachusetts RTK - Substance List** Ethanol (CAS 64-17-5)  
 Denaturant  
**New Jersey Worker and Community Right-to-Know Act** Ethanol (CAS 64-17-5)  
 Denaturant  
**Pennsylvania Worker and Community Right-to-Know Law** Ethanol (CAS 64-17-5)  
 Denaturant  
**Rhode Island RTK** Denaturant  
**California Proposition 65** Not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
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	Yes
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	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).

**16. Other information**

**Issue date** 09/25/2017  
**Revision date** -  
**Version** 10  
**List of abbreviations** LC50: Lethal Concentration, 50%.  
 LD50: Lethal Dose, 50%.  
 LDLo: Lowest published Lethal Dose.  
 NOEC: No Observed Effect Concentration.  
**Further information** Not available.  
**References** HSDB® - Hazardous Substances Data Bank  
 Registry of Toxic Effects of Chemical Substances (RTECS)  
**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>	CycLex Cellular BrdU ELISA Kit Ver.2 1000X BrdU Labeling Reagent	
<b>Other means of identification</b>		
<b>Product code</b>	CY-1142V2	
<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@mbl.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>	Germ cell mutagenicity	Category 1B
	Reproductive toxicity	Category 2
<b>OSHA hazard(s)</b>	Not classified.	
<b>Label elements</b>		
<b>Hazard symbol</b>		
<b>Signal word</b>	Danger	
<b>Hazard statement</b>	May cause genetic defects. Suspected of damaging fertility or the unborn child.	
<b>Precautionary statement</b>		
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.	
<b>Response</b>	If exposed or concerned: Get medical advice/attention.	
<b>Storage</b>	Store locked up.	
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.	
<b>Hazard(s) not otherwise classified (HNOC)</b>	None.	

### 3. Composition/Information on ingredients

#### Mixtures

Chemical name	CAS number	%
Broxuridine (BrdU)	59-14-3	< 0.5



**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. Call a physician if symptoms develop or persist.

**Skin contact** Remove contaminated clothing. Wash off with soap and plenty of water. Get medical attention if irritation develops and persists.

**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**Most important symptoms/ effects, acute and delayed** Direct contact with eyes may cause temporary irritation.

**Indication of immediate medical attention and special treatment needed** Direct contact with eyes may cause temporary irritation.

**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** Move containers from fire area if you can do it without risk. Use water spray to cool unopened containers.

**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** Ensure adequate ventilation. Avoid inhalation of mist and contact with skin and eyes. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up** Dike far ahead of liquid spill for later disposal. Small Spills: Absorb spillage with non-combustible, absorbent material. Clean contaminated surface thoroughly. After removal, flush contaminated area thoroughly with water. Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

#### 7. Handling and storage

**Precautions for safe handling** Should be handled in closed systems, if possible. Obtain special instructions before use. Avoid contact with skin and eyes. Pregnant women should not work with the product, if there is the least risk of exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store locked up. Store in tightly closed original container in a dry, cool and well-ventilated place. Store away from incompatible materials.

#### 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 and minimize the risk of inhalation of vapors and mists. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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

<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Wear protective gloves. Butyl rubber gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
<b>Other</b>	Wear apron or protective clothing in case of splashes.
<b>Respiratory protection</b>	If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection. Seek advice from local supervisor.
<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.

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## 9. Physical and chemical properties

<b>Appearance</b>	
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Colorless.
<b>Odor</b>	Slight odor.
<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 - 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 (n-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 non-reactive under normal conditions of use, storage and transport.
<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. Elevated temperatures.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Carbon oxides, Nitrogen oxides (NOx), Hydrogen bromide gas.

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### 11. Toxicological information

#### Information on toxicological effects

**Acute toxicity** Large quantities: May cause discomfort if swallowed. May be absorbed in the body and cause dizziness, nausea and vomiting.

Components	Species	Test Results
Broxuridine (CAS 59-14-3)		
<b>Acute</b>		
<i>Oral</i>	LD50 Rat	8,400 mg/kg

**Skin corrosion/irritation** Prolonged contact may cause temporary irritation.  
**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.  
**Respiratory sensitization** Not a respiratory sensitizer.  
**Skin sensitization** Not a skin sensitizer.  
**Germ cell mutagenicity** In vivo tests showed mutagenic effects, Rat Embryo; DNA damage, Rat; DNA inhibition.

#### Carcinogenicity

<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	Not listed.
<b>NTP Report on Carcinogens</b>	Not listed.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not listed.

**Reproductive toxicity** Suspected human reproductive toxicant.

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

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

**Aspiration hazard** Not an aspiration hazard.

**Additional Information** RTECS: YU7350000

### 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** 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 other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 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** Do not discharge into drains, water courses or onto the ground. Dispose in accordance with all applicable 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

<b>US federal regulations</b>	This product is not hazardous according to OSHA 29 CFR 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 listed.
<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 - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
<b>SARA 302 Extremely hazardous substance</b>		No
<b>SARA 311/312 Hazardous chemical</b>		Yes
<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>US state regulations</b>		
<b>California Proposition 65 - Carcinogens &amp; Reproductive Toxicity (CRT)</b>		Not listed.
<b>International Inventories</b>		
<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
<b>Australia</b>	Australian Inventory of Chemical Substances (AICS)	No
<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)	No
<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)	No
<b>New Zealand</b>	New Zealand Inventory	No
<b>Philippines</b>	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
<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).

### 16. Other information

<b>Issue date</b>	09/25/2017
<b>Revision date</b>	-
<b>Version</b>	10
<b>List of abbreviations</b>	LD50: Lethal Dose, 50%.
<b>Further information</b>	Not available.
<b>Disclaimer</b>	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>	CycLex Cellular BrdU ELISA Kit Ver.2 Stop Solution	
<b>Other means of identification</b>		
<b>Product code</b>	CY-1142V2	
<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@mbl.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>	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
<b>OSHA hazard(s)</b>	Not classified.	
<b>Label elements</b>		
<b>Hazard symbol</b>		
<b>Signal word</b>	Danger	
<b>Hazard statement</b>	Causes severe skin burns and eye damage.	
<b>Precautionary statement</b>		
<b>Prevention</b>	Do not breathe dust or mist. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling.	
<b>Response</b>	IF SWALLOWED: Rinse mouth. Do not induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.	
<b>Storage</b>	Store locked up.	
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.	
<b>Hazard(s) not otherwise classified (HNOC)</b>	None.	

### 3. Composition/Information on ingredients

**Mixtures**

Chemical name	CAS number	%
Sulfuric acid	7664-93-9	< 10

**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**

<b>Inhalation</b>	Move injured person into fresh air and keep person calm under observation. If breathing is difficult, trained personnel should give oxygen. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Flush skin thoroughly with water. Get medical attention immediately. Chemical burns must be treated by a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove any contact lenses and open eyelids wide apart. Continue rinsing. Get medical attention immediately.
<b>Ingestion</b>	Rinse mouth thoroughly. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention if any discomfort continues.
<b>Most important symptoms/ effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Extreme irritation of eyes and mucous membranes, including burning and tearing.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	First aid personnel must be aware of own risk during rescue.

**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>	By heating and fire, harmful vapors/gases may be formed.
<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.

**6. Accidental release measures**

<b>Personal precautions, protective equipment and emergency procedures</b>	Avoid inhalation of spray mist and contact with skin and eyes. Wear appropriate personal protective equipment.
<b>Methods and materials for containment and cleaning up</b>	Absorb spillage with non-combustible, absorbent material. Collect in containers and seal securely.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage**

<b>Precautions for safe handling</b>	Avoid inhalation of spray mist and contact with skin and eyes. Wear appropriate personal protective equipment. Wash hands after handling. Observe good industrial hygiene
<b>Conditions for safe storage, including any incompatibilities</b>	Keep container closed. Do not store near heat sources or expose to high temperatures. Protect from direct sunlight.

**8. Exposure controls/personal protection**

**Occupational exposure limits**  
 US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sulfuric acid (CAS 7664-93-9)	PEL	1 mg/m3

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0.2 mg/m3	Thoracic fraction

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Sulfuric acid (CAS 7664-93-9)	REL	1 mg/m3

<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 and mist. 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 chemical safety goggles.
<b>Skin protection</b>	
<b>Hand protection</b>	Use suitable protective gloves if risk of skin contact. Butyl rubber gloves are recommended, but 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 clothing appropriate for the risk of exposure.
<b>Respiratory protection</b>	If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection. Chemical respirator with acid gas cartridge.
<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**

<b>Appearance</b>	
<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 - 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 (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

### 10. Stability and reactivity

<b>Reactivity</b>	Reacts violently with strong bases.
<b>Chemical stability</b>	Stable under normal temperature conditions.
<b>Possibility of hazardous reactions</b>	This product may react with reducing agents.
<b>Conditions to avoid</b>	Sunlight. Heat. Freezing.
<b>Incompatible materials</b>	Reducing agents. Alkalis. Metals.
<b>Hazardous decomposition products</b>	Sulfur dioxide.

### 11. Toxicological information

#### Information on likely routes of exposure

<b>Ingestion</b>	May cause discomfort if swallowed. Ingestion may cause nausea, headache and dizziness.
<b>Inhalation</b>	Spray mists may cause respiratory tract irritation.
<b>Skin contact</b>	Causes skin burns.
<b>Eye contact</b>	Causes severe eye burns.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Burning pain and severe corrosive skin damage. Extreme irritation of eyes and mucous membranes, including burning and tearing.

#### Information on toxicological effects

<b>Acute toxicity</b>	Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.
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Components	Species	Test Results
Sulfuric acid (CAS 7664-93-9)		
<b>Acute</b>		
<i>Oral</i>	LD50 Rat	2,140 mg/kg

<b>Skin corrosion/irritation</b>	Causes severe skin burns.
<b>Serious eye damage/eye irritation</b>	Causes eye burns.
<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>	Exposure to strong inorganic acid mists containing sulfuric acid has been classified as carcinogenic to humans. The information located is insufficient to conclude that sulfuric acid itself is a carcinogen.
<b>Reproductive toxicity</b>	No data available.
<b>Specific target organ toxicity - single exposure</b>	No data available.
<b>Specific target organ toxicity - repeated exposure</b>	No data available.
<b>Aspiration hazard</b>	No data available.

### 12. Ecological information

<b>Ecotoxicity</b>	Large amounts of the product may affect the acidity (pH-factor) in water with possible risk of harmful effects to aquatic organisms.
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Components	Species	Test Results
Sulfuric acid (CAS 7664-93-9)		
<b>Aquatic</b>		
Fish	LC50 Western mosquitofish ( <i>Gambusia affinis</i> )	42 mg/L, 96 hours

<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.



**Other adverse effects**                      None known.

**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**                      D002: Corrosive waste

**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**

**UN number**                                      UN2796

**UN proper shipping name**                 Sulphuric acid solution

**Transport hazard class(es)**                8

**Subsidiary class(es)**                        -

**Packing group**                                II

**Special precautions for user**                Read safety instructions, SDS and emergency procedures before handling.

**Labels required**                                8

**Special provisions**                            A3, A7, B2, B15, IB2, N6, N34, T8, TP2, TP12

**Packaging exceptions**                        154

**Packaging non bulk**                         202

**Packaging bulk**                                242

**IATA**

**UN number**                                      UN2796

**UN proper shipping name**                 Sulphuric acid solution

**Transport hazard class(es)**                8

**Subsidiary class(es)**                        -

**Packaging group**                                II

**Environmental hazards**                        No

**Labels required**                                8

**ERG Code**                                        8L

**Special precautions for user**                Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

**UN number**                                      UN2796

**UN proper shipping name**                 Sulphuric acid solution

**Transport hazard class(es)**                8

**Subsidiary class(es)**                        -

**Packaging group**                                II

**Environmental hazards**

**Marine pollutant**                            No

**Labels required**                                8

**EmS**    F-A, S-B

**Special precautions for user**                Read safety instructions, SDS and emergency procedures before handling.

**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)**

Sulfuric acid (CAS 7664-93-9) Listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)  
Hazard categories**

Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

SARA 302 Extremely hazardous substance  
SARA 311/312 Hazardous chemical  
SARA 313 (TRI reporting)

No  
Yes  
Not regulated.

**Other federal regulations**

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List  
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.  
Sulfuric acid (CAS 7664-93-9)

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

Sulfuric acid (CAS 7664-93-9) 6552

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Sulfuric acid (CAS 7664-93-9) 20%W/V

DEA Exempt Chemical Mixtures Code Number

Sulfuric acid (CAS 7664-93-9) 6552

**US state regulations**

WARNING: This product contains a chemical known to the State of California to cause

Massachusetts RTK - Substance List

Sulfuric acid (CAS 7664-93-9)

New Jersey Worker and Community Right-to-Know Act

Sulfuric acid (CAS 7664-93-9) 500 lbs

Pennsylvania RTK - Hazardous Substances

Sulfuric acid (CAS 7664-93-9)

Rhode Island RTK

Sulfuric acid (CAS 7664-93-9)

California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT)

Sulfuric acid (CAS 7664-93-9)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
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	Yes
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	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).

**16. Other information**

Issue date	09/25/2017
Revision date	-
Version	10
List of abbreviations	LC50: Lethal Concentration, 50%. LD50: Lethal Dose, 50%.
Further information	Not available.
References	IUCLID (2000) RTECS (2006, 2008)

**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>	CycLex Cellular BrdU ELISA Kit Ver.2 Substrate Reagent
<b>Other means of identification</b>	
<b>Product code</b>	CY-1142V2
<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@mbl.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>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None.

### 3. Composition/Information on ingredients

#### Mixtures

Chemical name	CAS number	%
Hydrogen peroxide	7722-84-1	< 0.1
3,3',5,5'-Tetramethylbenzidine	54827-17-7	≤ 0.05

**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

<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>	Drink plenty of water. Get medical attention if any discomfort occurs.
<b>Most important symptoms/ effects, acute and delayed</b>	May cause temporary irritation on skin or eye contact.
<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>	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 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 suitable absorbent material. After removal, flush contaminated area thoroughly with water.
<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. Wear appropriate personal protective equipment (See Section 8). Wash hands after handling. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store away from incompatible materials.

### 8. Exposure controls/personal protection

#### Occupational exposure limits

##### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Hydrogen peroxide (CAS 7722-84-1)	PEL	1.4 mg/m3 1 ppm

##### US. ACGIH Threshold Limit Values

Components	Type	Value
Hydrogen peroxide (CAS 7722-84-1)	TWA	1 ppm

##### US NIOSH Pocket Guide to Chemical Hazards: Recommended exposure limit (REL)

Components	Type	Value
Hydrogen peroxide (CAS 7722-84-1)	TWA	1.4 mg/m3 1 ppm

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Exposure guidelines</b>	No exposure standards allocated.
<b>Appropriate engineering controls</b>	Provide adequate ventilation.
<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>	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 appropriate clothing to prevent repeated or prolonged skin contact.
<b>Respiratory protection</b>	No special precautions. Seek advice from local supervisor.
<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

<b>Appearance</b>	
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Pale amber.
<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 applicable.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not applicable.
<b>Flammability limit - upper (%)</b>	Not applicable.
<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.

## 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 under the prescribed storage conditions.
<b>Possibility of hazardous reactions</b>	None known.
<b>Conditions to avoid</b>	Contact with incompatible materials. Elevated temperatures.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

**Information on likely routes of exposure**

**Ingestion** 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** May cause eye irritation on direct contact.

**Symptoms related to the physical, chemical and toxicological characteristics** May cause temporary irritation on skin or eye contact.

**Information on toxicological effects**

**Acute toxicity** May cause discomfort if swallowed.

Components	Species	Test Results
Hydrogen peroxide (CAS 7722-84-1)		
<b>Acute</b>		
<i>Oral</i>	LD50 Rat	311 mg/kg
<i>Dermal</i>	LD50 Rat	4,060 mg/kg

**Skin corrosion/irritation** Prolonged contact may cause dryness of the skin.

**Serious eye damage/eye irritation** May cause eye irritation on direct contact.

**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**

Components	Species	Test Results
Hydrogen peroxide (CAS 7722-84-1)		
<b>Aquatic</b>		
Algae	EC50 <i>Nitzschia</i>	0.85 mg/L, 72 hours

**Persistence and degradability** The product is biodegradable.

**Bioaccumulative potential** The product is not bioaccumulating.

**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** 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**

<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>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.
<b>Pennsylvania RTK - Hazardous Substances</b>		Not regulated.
<b>Rhode Island RTK</b>		Not regulated.
<b>California Proposition 65 - Carcinogens &amp; Reproductive Toxicity (CRT)</b>		Not listed.
<b>International Inventories</b>		
<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
<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)	No
<b>Korea</b>	Existing Chemicals List (ECL)	No
<b>New Zealand</b>	New Zealand Inventory	Yes
<b>Philippines</b>	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
<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).

**16. Other information**

<b>Issue date</b>	09/25/2017
<b>Revision date</b>	-
<b>Version</b>	10
<b>List of abbreviations</b>	EC50: Effective Concentration, 50%. LD50: Lethal Dose, 50%.
<b>Further information</b>	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.



## SAFETY DATA SHEET

### 1. Identification

<b>Product identifier</b>	CycLex Cellular BrdU ELISA Kit Ver.2 10X Wash Buffer, Blocking Solution
<b>Other means of identification</b>	
<b>Product code</b>	CY-1142V2
<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@mbl.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 thoroughly 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

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

### 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 - 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 (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 - single exposure</b>	No data available.
<b>Specific target organ toxicity - repeated exposure</b>	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.
<b>DEA Exempt Chemical Mixtures Code Number</b>	Not regulated.
<b>Food and Drug Administration (FDA)</b>	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.

<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</b>	Not regulated.
<b>Rhode Island RTK</b>	Not regulated.
<b>California Proposition 65 - Carcinogens &amp; Reproductive Toxicity (CRT)</b>	Not listed.

**International Inventories**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
<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>	09/25/2017
<b>Revision date</b>	-
<b>Version</b>	10
<b>Further information</b>	Not available.
<b>Disclaimer</b>	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

**Product identifier** CycLex Cellular BrdU ELISA Kit Ver.2  
Primary Antibody Solution, Secondary Antibody Solution

**Other means of identification**

**Product code** CY-1142V2  
**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** None.  
**Disposal** None.  
**Hazard(s) not otherwise classified (HNOC)** 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

**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

<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>	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.



**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

<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 - 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 (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

## 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.

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

**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.

**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** 09/25/2017  
**Revision date** -  
**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.