

**MATERIAL SAFETY DATA SHEET**

Created: September 28, 2011

Revised: February 1, 2012

**1. Identification of the Substance/Mixture of the Company/Undertaken**

|                     |  |
|---------------------|--|
| <b>Product Name</b> | Anti-IL-18 (Mouse) mAb   |
| <b>Catalog No.</b>  | D047-3   |
| <b>Manufacturer</b> | Medical & Biological Laboratories (MBL) Co., Ltd.<br>KDX Nagoya Sakae Bldg. 10F<br>4-5-3 Sakae, Naka-ku, Nagoya 460-0008, Japan<br>TEL: +81-265-76-4999 (9 AM to 5 PM JST; Hiroshi Takatoya)<br>FAX: +81-265-76-1964<br>E-mail: takatoya.hiroshi@mbl.co.jp |
| <b>Supplier</b>     | MBL International Co.<br>4 H Constitution Way<br>Woburn, MA 01801, USA<br>TEL: +1-800-200-5459 x1113 (Dr. Bindi M. Doshi: Technical Service Manager)<br>FAX: +1-781-939-6963<br>E-mail: bindi.doshi@mblintl.com  |
| <b>Intended Use</b> | For Research Use Only  |

**2. Hazards Identification**

|                           |           |
|---------------------------|-----------|
| <b>GHS Classification</b> | N/A       |
| <b>Symbol</b>             | No Symbol |
| <b>Signal Word</b>        | N/A       |
| <b>Hazard Statement</b>   | N/A       |

\*The product contains no substances which at their concentration, are considered to be hazardous to health.

**3. Composition/Information on Ingredients**

|                                 |   |
|---------------------------------|---|
| <b>Chemical Identity</b>        |   |
| <b>Substance/ Mixture</b>       | Mixture                                   |
| <b>Hazardous/ Non-hazardous</b> | Glycerol                                  |
| <b>Ingredients</b>              |   |
| <b>Synonyms</b>                 | Glycerin; 1,2,3-Propantriol               |
| <b>Concentration</b>            | 50% (Not hazardous at this concentration) |
| <b>Formula</b>                  | C3H8O3                                    |
| <b>Molecular Weight</b>         | 92.09                                     |
| <b>CAS No.</b>                  | 56-81-5                                   |
| <b>EC No. (EINECS)</b>          | 200-289-5                                 |
| <b>EC Index No.</b>             | Not listed                                |
| <b>TSCA Inventory</b>           | Listed                                    |

**4. First-aid Measures**

|                           |   |
|---------------------------|---|
| <b>After Inhalation</b>   | Supply fresh air, consult doctor in case of complaints.                   |
| <b>After Skin Contact</b> | Immediately wash skin with plenty of water.                               |
| <b>After Eye Contact</b>  | Immediately rinse opened eye for at least 15 minutes under running water. |
| <b>After Ingestion</b>    | Rinse mouth with water. Seek medical attention and appropriate follow-up. |

**5. Fire-fighting Measures**

|                                      |   |
|--------------------------------------|---|
| <b>Suitable Extinguishing Agents</b> | Dry chemical powder, carbon dioxide, foam, water spray. |
| <b>Protective Equipment</b>          | No special measures                                     |

**6. Accidental Release Measures**

|   |   |
|---|---|
| <b>Personal Precautions</b>               | Use standard laboratory practices including proper personal protective equipment. |
| <b>Procedures for Cleaning/absorption</b> | Absorbe liquid with inert liquid-binding material.                                |
| <b>Ventilation</b>                        | No special ventilation is necessary.  |
| <b>Environmental Precautions</b>          | N/A   |

**7. Handling and Storage**

|                 |   |
|-----------------|---|
| <b>Handling</b> | No special measures required. No special precautions are necessary if used correctly. |
|-----------------|---|

**Storage** Store at -20°C preferably in the dark.

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## 8. Exposure Controls and Personal Protection

**Control Parameters** OSHA PEL (TWA), 15 mg/m<sup>3</sup> total dust, 5 mg/m<sup>3</sup> respirable fraction; ACGIH OEL (TWA) 10 mg/m<sup>3</sup>.

**Protective Equipments** Follow usual standard laboratory practices including proper personal protective equipments (protective gloves, safety glasses, lightweight

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or store food and beverages in areas where chemicals are used. Wash hands before breaks and at the end of the work shift.

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## 9. Physical and Chemical Properties

**Physical Data**

|  |                      |
|--|----------------------|
| <b>Form</b>                                  | Solution             |
| <b>Color</b>                                 | Colorless            |
| <b>Odor</b>                                  | Odorless             |
| <b>pH</b>                                    | Neutral              |
| <b>Boiling Point/Boiling Range</b>           | Not available.       |
| <b>Flash Point</b>                           | Not available.       |
| <b>Flammability</b>                          | Not flammable.       |
| <b>Explosive Properties</b>                  | No explosion hazard. |
| <b>Oxidizing Properties</b>                  | Not available.       |
| <b>Vapor Pressure</b>                        | Not available.       |
| <b>Evaporation Rate</b>                      | Not available.       |
| <b>Relative Density</b>                      | Not available.       |
| <b>Solubility in /Miscibility with Water</b> | Soluble/miscible.    |
| <b>Partition Coefficient</b>                 | Not available.       |
| <b>Viscosity</b>                             | Not available.       |

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## 10. Stability and Reactivity

**Chemical Stability** Stable at -20°C or less (for antibody).

**Thermal Decomposition/Conditions to be Avoided** No decomposition if used according to specification.

**Incompatible Materials to be Avoided** Not known.

**Hazardous Decomposition Products** No dangerous decomposition products known.

**Hazardous Polymerization** Hazardous polymerization does not occur.

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## 11. Toxicological Information

**Acute Toxicity (Glycerol, 100%)** TDL<sub>0</sub> (oral, human): 1,428 mg/kg; headache, nausea or vomiting (RTECS)  
LD<sub>50</sub> (oral, rat): 12,600 mg/kg (RTECS)  
LD<sub>50</sub> (dermal, rabbit): 10,000 mg/kg  
LD<sub>50</sub> (inhalation, rat): 570 mg/m<sup>3</sup>

**Skin Irritant Effect** Not known.

**Eye Irritant Effect** Not known.

**Chronic Toxicity** Not known.

**Sensitization** Not known.

**Mutagenicity** Not known.

**Teratogenicity** Not known.

**Reproduction Toxicity** Not known.

**Target Organ Effects** Not known.

\*The product is not subject to classification according to GHS ver. 3.

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## 12. Ecological Information

**Ecotoxicity (Glycerol, 100%)** LC<sub>50</sub> (fish): 184,000 mg/L/96 hr SIDS; LC<sub>50</sub> (goldfish): >5,000 mg/L/24 hr SIDS.

**Biodegradability** Biodegradable.

**Mobility** Not information available.

**Bioaccumulation** Not information available.

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## 13. Disposal Considerations

**Waste** Dispose in compliance with applicable national, regional or local laws and regulations.

**Empty Packaging** Dispose in compliance with applicable national, regional or local laws and regulations.

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**14. Transport Information**

|  |   |
|--|---|
| <b>IATA</b>                              | Not restricted.   |
| <b>Proper Shipping Name</b>              | Not classified as dangerous in the meaning of transport regulations.          |
| <b>Hazard Class</b>                      | No information available.   |
| <b>Subsidiary Class</b>                  | No information available.   |
| <b>Packing Group</b>                     | No information available.   |
| <b>UN-No.</b>                            | No information available.   |
| <b>DOT (Dept. of Transportation, US)</b> | Not a hazardous material for DOT shipping.                                    |
| <b>Indicate Precaution</b>               | Store at -20°C (for antibody).  |
| <b>Other Information</b>                 | Protect from direct sunlight and high temperature. Avoid damaging containers. |

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**15. Regulatory Information**

&lt;Glycerol&gt;

**EU REGULATIONS:**

Labelling according to EC Directives: See Section 2.

**US REGULATIONS:**

CAA/111 Volat. Org. Comp., NIOSH Recommend. Subst., Mass. Subst. List, Penn. Haz. Subst. List

EPA : CERCLA RQ= Not listed. EPCRA TPQ= Not listed

OSHA : TQ= Not listed

NFPA : HR= health-1, flam.-0, react.-0

HMIS : HR= health-1, flam.-0, react.-0

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**16. Other Information**

The information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. The information in this document is intended only as a guide to the appropriate precautionary handling of this material by a person trained in, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and danger of this chemical material in his application. MBL shall not be held responsible for any damage resulting from the use of the above product or the information contained in this Material Safety Data Sheet. Since conditions and manner of use are outside of our control, MBL can assume no liability in connection with any use of this information.