MATERIAL SAFETY DATA SHEET

Created: October 7, 2011 Revised: February 1, 2012

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

Product Name Recombinant Human IL-18 (without BSA)

Catalog No. B003-2

Manufacturer Medical & Biological Laboratories (MBL) Co., Ltd.

KDX Nagoya Sakae Bldg. 10F

4-5-3 Sakae, Naka-ku, Nagoya 460-0008, Japan

TEL: +81-265-76-4999 (9 AM to 5 PM JST; Hiroshi Takatoya)

FAX: +81-265-76-1964

E-mail: takatoya.hiroshi@mbl.co.jp

Supplier MBL International Co.

> 4 H Constitution Way Woburn, MA 01801, USA

TEL: +1-800-200-5459 x1113 (Dr. Bindi M. Doshi: Technical Service

Manager)

FAX: +1-781-939-6963 E-mail: bindi.doshi@mblintl.com

Intended Use For Research Use Only

2. Hazards Identification

GHS Classification N/A

No Symbol Symbol Signal Word N/A **Hazard Statement** N/A

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

3. Composition/Information on Ingredients

Chemical Identity

Substance/ Mixture Hazardous/ Non-hazardous

Ingredients

Mixture None

4. First-aid Measures

After Inhalation Supply fresh air, consult doctor in case of complaints.

After Skin Contact: Immediately wash skin with plenty of water.

After Eye Contact Immediately rinse opened eye for several minutes under running water.

Rinse mouth with water, consult doctor in case of complaints. **After Ingestion**

5. Fire-fighting Measures

Suitable Extinguishing Agents Non-flammable aqueous solution. **Protective Equipment** No special measures required.

6. Accidental Release Measures

Personal Precautions Use standard laboratory practices including proper personal protective

equipment.

Procedures for Cleaning/absorption

Absorbe liquid with inert liquid-binding material. Ventilation No special ventilation is necessary.

Environmental Precautions N/A

7. Handling and Storage

Handling No special measures required. No special precautions are necessary if used

Store at -80°C or below preferably in the dark. Storage

8. Exposure Controls and Personal Protection

Control Parameters None known.

Protective Equipments Follow usual standard laboratory practices including proper personal

protective equipments (protective gloves, safety glasses, lightweight

protective clothing).

Handle in accordance with good industrial hygiene and safety practice. Do **Hygiene Measures**

> 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.

No decomposition if used according to specification.

9. Physical and Chemical Properties

Physical Data

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

10. Stability and Reactivity

Stable at -80°C or below. **Chemical Stability**

Thermal Decomposition/Conditions to

be Avoided

Incompatible Materials to be Avoided Not known.

Hazardous Decomposition Products

No dangerous decomposition products known. **Hazardous Polymerization** Hazardous polymerization does not occur.

11. Toxicological Information

Acute Toxicity Not known. **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. **Taget Organ Effects** Not known.

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

12. Ecological Information

Not information available. **Ecotoxicity** Not information available. **Biodegrability Mobility** Not information available. Bioaccumulation Not information available.

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.

14. Transport Information

IATA Not restricted.

Proper Shipping Name Not classified as dangerous in the meaning of transport regulations.

Hazard Class No information available. **Subsidiary Class** No information available. **Packing Group** No information available. UN-No. No information available.

DOT (Dept. of Transportation, US) Not a hazardous material for DOT shipping.

Indicate Precaution Store at -80°C.

Other Information Protect from direct sunlight and high temperature. Avoid damaging

containers.

15. Regulatory Information

The product does not contain a hazardous ingredient in an amount that requires identification and labeling according to European guidelines accordance with EEC directives (67/548/EEC, 99/45/EEC). The product is exempt from WHMIS requirements in Canada.

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.