

## Section 1 - Product and Company Information

<b>Product Name:</b>	<b>MDP, MDP Control, MDP Biotin, L18-MDP, N-Glycolyl-MDP, N-Glycolyl-MDP VacciGrade™</b>
<b>Cat. Code:</b>	tlrl-mdp, tlrl-mdpc, tlrl-bmdp, tlrl-lmdp, tlrl-gmdp, vac-gmdp InvivoGen USA, 3950 Sorrento Valley Blvd, Suite 100 San Diego, California 92121, USA (+1) 888 457 5873
<b>Company identification:</b>	InvivoGen Europe, 5 rue Jean Rodier 31400 Toulouse, FRANCE +33 (0) 5 62 71 69 39  InvivoGen Hong Kong, Unit 709A, Bio-Informatics Center 2 Science Park West Avenue, Hong Kong Science Park Shatin, Hong Kong +852 3622 3480
<b>Emergency number:</b>	ORFILA (INRS): +33 (0)1 45 42 59 59

**Disclaimer:** All InvivoGen products are supplied for research and laboratory use only. Not for drug, household or other uses.

## Section 2 – Hazards Identification

### **Emergency Overview:**

#### **OSHA Hazards**

No known OSHA hazards

#### **2.1 Classification of substance**

Not a hazardous substance or mixture according to EC-Directives 67/548/EEC or 1999/45/EC.

Not a hazardous substance or mixture according to CLP-Regulation (EC) No. 1272/2008.

#### **2.2 Label elements**

The product does not need to be labeled in accordance with EC-Directives 67/548/EEC, to CLP-Regulation (EC) No. 1272/2008 or respective national laws.

#### **2.3 Other hazards - none**

## Section 3 – Composition/Information on Ingredient

**Synonyms:** Muramyldipeptide

**CAS number:** 53678-77-6

**EC number:** 258-696-9

## Section 4 – First Aid Measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**After skin contact:** Immediately wash skin with soap and plenty of water. Consult a physician.

**After swallowing:** Never give anything by mouth to an unconscious person. Rinse mouth with water provided person is conscious. Consult a physician.

**After inhalation:** Remove to fresh air. If not breathing give artificial respiration. Consult a physician.

**After eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician.

## **Section 5 – Fire Fighting Measures**

**Suitable extinguishing media:** Water spray, carbon dioxide, dry chemical powder or appropriate foam.

**Specific hazards arising from the chemical:** No data available

**Special Firefighting Procedures:** Wear self-contained breathing apparatus for fire fighting if necessary.

## **Section 6 – Accidental Release Measures**

**Personal precautions:** Wear protective equipment. Keep unprotected persons away. Avoid dust formation.

**Method for Cleaning Up:** Sweep up and place in closed containers for disposal. Dispose contaminated material as waste according to section 13. Ventilate area and wash spill site after material clean-up is complete.

## **Section 7 – Handling and Storage**

**Handling:** Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure.

**User Exposure:** Avoid inhalation. Use personal protective equipment (i.e. impermeable gloves, lab coat or apron).

**Storage:** Store at -20 °C.

## **Section 8 – Exposure Controls/PPE**

Contains no substances with occupational exposure limit values.

### **Personal protective equipment**

#### **Eye protection**

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Hand protection**

Handle with gloves. Gloves must be inspected prior to use. 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.

#### **Hygiene measures**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## **Section 9 – Physical/Chemical Properties**

### **Appearance**

Physical state: Solid (lyophilized powder)

Color: White

### **Safety Data**

Odor: No data available

Odor threshold: No data available

pH: No data available

Melting point/freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: No data available

Evaporation rate: No data available

Flammability: No data available

Upper/lower flammability or explosive limits: No data available

Vapor pressure: No data available

Relative density: No data available

Solubility: No data available

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

## **Section 10 – Stability and Reactivity**

**Reactivity:** No data available

**Chemical stability:** Stable under recommended storage conditions

**Possibility of hazardous reactions:** No data available

**Conditions to avoid:** No data available

**Incompatible materials:** Strong oxidizing agents, strong bases

**Hazardous decomposition products:** No data available

## **Section 11 – Toxicological Information**

**Acute toxicity:**

Oral LD50: No data available.

Inhalation LC50: No data available.

Dermal LD50: No data available.

Other information on acute toxicity: MDP has been shown to induce leucopenia and to be pyrogenic (Kotani S. *et al.*, 1976.

Correlation between the immunoadjuvant activities and pyrogenicities of synthetic N-acetylmuramyl-peptides or – aminoacides. Biken J. 19 :9-13).

**Skin corrosion/irritation:** No data available

**Serious eye damage/irritation:** No data available

**Respiratory or skin sensitization:** No data available

**Germ cell mutagenicity:** No data available

**Carcinogenicity:** No data available

**Reproductive toxicity:** No data available

**Additional information:** No data available

## **Section 12 – Ecological Information**

**Ecotoxicity:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available.

## **Section 13 – Disposal Considerations**

**Product:** Observe all federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Must not be disposed of together with household garbage.

**Contaminated Packaging:** Dispose of as unused product.

## **Section 14 – Transport Information**

**ADR/RID:** Not dangerous goods

**DOT (US):** Not dangerous goods

**IMDG:** Not dangerous goods

**IATA:** Not dangerous goods

## **Section 15 – Regulatory Information**

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

no data available

### **15.2 Chemical Safety Assessment**

no data available

**Section 16 – Other Information**

The information contained in this SDS relates only to the material(s) designated and does not relate to use(s) in combination with any other material, process(es) and/or chemical reaction(s). InvivoGen provides this information in good faith and is based on our present knowledge. This SDS is provided without warranty of any kind. The recipient is responsible for ensuring that, where applicable, existing laws and guidelines are observed.