

Revision date: 16/12/13

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 16/12/13

1 Identification of the substance/mixture and of the company / undertaking

PRODUCT IDENTIFIER:

- **Trade name:** TLR4 Agonist (Salmonella) Explorer Set I TLRpure™
- **Article number:** IAX-300-001-1
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation:** Laboratory chemicals

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:

- **Manufacturer/Supplier:** Innaxon
Basepoint Business Centre
Tewkesbury Business Park
Oakfield Close
Tewkesbury, GL20 8SD
United Kingdom
Tel +44 (0)1684 851 274
Email info@innaxon.co.uk
- **Further information obtainable from:** Customer service
- **Emergency telephone number:** During normal opening times: +44 (0)1684 851 274

2 Hazards identifications

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

- **Classification according to Regulation (EC) No 1272/2008:** The product is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC:** Not applicable
- **Information concerning particular hazards for human and environment:** The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:** The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

LABEL ELEMENTS:

- **Labelling according to EU guidelines:** Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- **Other hazards:** When entering the blood stream through cuts or open wounds lipopolysaccharides (Monophosphoryl Lipid A) have potent pyrogenic activity in humans at very low doses in the ng/kg range.

RESULTS OF PBT AND vPvB ASSESSMENT:

- **PBT:** Not applicable
- **vPvB:** Not applicable

3 Composition / information on ingredients

- **Chemical characterization:** Mixtures all in water.
- **Description:** Lipopolysaccharide (LPS) from *S. abortus equi* TLRpure™ Sterile Solution, 500µg (Cat. No.: IAX-100-009-C500), Lipopolysaccharide (LPS) from *S. minnesota* R595 (Re) TLRpure™ Sterile Solution, 500µg (Cat. No.: IAX-100-008-C500), Monophosphoryl Lipid A [MPLA] from *S. minnesota* R595 (Re) TLRpure™ Sterile Solution, 250µg (Cat. No.: IAX-100-002-C250).
- **Dangerous components:** Void
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

Continued on page 2

Revision date: 16/12/13

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 16/12/13

Continued of page 1

Trade name: TLR4 Agonist (Salmonella) Explorer Set I TLRpure™

4 First aid measures

DESCRIPTION OF FIRST AID MEASURES:

- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Remove contaminated clothing.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After ingestion:** If symptoms persist consult doctor.

INFORMATION FOR DOCTOR:

- **Most important symptoms and effects, both acute and delayed.** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed.** No further relevant information available.

5 Firefighting measures

EXTINGUISHING MEDIA:

- **Suitable extinguishing agents:** CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture:** No further relevant information available.

ADVICE FOR FIREFIGHTERS:

- **Protective equipment:** Wear self-contained respiratory protective device. Do not inhale explosion gases or combustion gases. Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:** Wear protective clothing.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections:** No dangerous substances are released. See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 Handling and storage

HANDLING:

- **Precautions for safe handling:** Access to this material must be restricted to personnel, who is appropriately experienced, qualified, competent and properly trained to use it. Handle carefully in order not to break glass or make glass splinters.
- **Information about fire - and explosion protection:** No special measures required.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

- **Requirements to be met by storerooms and receptacles:** Store tightly sealed in a cool, dry and well ventilated location (see label for storage temperature and additional specific information).
- **Information about storage in one common storage facility:** Keep away from heat, sources of ignition and incompatibles such as oxidizing agents.
- **Further information about storage conditions:** Store under lock and key and with access restricted to technical experts or their assistants only.
- **Specific end use(s):** No further relevant information available.

Revision date: 16/12/13

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 16/12/13

Continued of page 2

Trade name: TLR4 Agonist (Salmonella) Explorer Set I TLRpure™

8 Exposure controls / personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

CONTROL PARAMETERS:

- **Ingredients with limit values that require monitoring at the workplace:** The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.

EXPOSURE CONTROLS:

- **General protective and hygienic measures:** The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Suitable respiratory protective device recommended.
- **Protection of hands:** The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
- **Material of gloves:** The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material:** The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling.

9 Physical and chemical properties

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

- **Appearance:**
 - **Form:** Fluid
 - **Colour:** Colourless
- **Odour:** Odourless
- **Odour:** Not determined
- **pH value:** Not determined
- **Change in condition:**
 - **Melting point / Melting range:** Undetermined
 - **Boiling point / Boiling range:** Undetermined
- **Flash point:** Not applicable
- **Ignition temperature:**
 - **Decomposition temperature:** Not determined
- **Self-igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - **Lower:** Not determined
 - **Upper:** Not determined
- **Vapour pressure:** Not determined
- **Density:** Not determined
- **Relative density:** Not determined
- **Vapour density:** Not determined
- **Evaporation rate:** Not determined
- **Solubility in / Miscibility with water:** Fully miscible
- **Partition coefficient (n-octanol/water):** Not determined

Revision date: 16/12/13

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 16/12/13

Continued of page 3

Trade name: TLR4 Agonist (Salmonella) Explorer Set I TLRpure™

- **Viscosity:**
 - **Dynamic:** Not determined
 - **Kinematic:** Not determined
- **Solvent content:**
 - **Organic solvents:** 0.0 %
 - **Solids solvents:** 0.05 - 0.1 %
- **Other information:** No further relevant information available.

10 Stability and reactivity

REACTIVITY:

- **Chemical stability:** Stable. Avoid strong oxidizing agents.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

INFORMATION ON TOXICOLOGICAL EFFECTS:

- **Primary irritant effect:**
 - **On the skin:** Not determined
 - **On the eye:** Not determined
- **Sensitisation:** No sensitisation known.
- **Additional toxicological information:** The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us. Prevent LPS, Monophosphoryl Lipid A from entering the bloodstream by all means. Highly pyrogenic.

12 Ecological information

TOXICITY:

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

BEHAVIOUR IN ENVIRONMENTAL SYSTEMS:

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

ADDITIONAL ECOLOGICAL INFORMATION:

- **General notes:** Generally not hazardous for water.

RESULTS OF PBT AND vPvB ASSESSMENT:

- **PBT:** Not applicable
- **vPvB:** Not applicable
- **Other adverse effects:** No further relevant information available.

Continued on page 5

Revision date: 16/12/13

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 16/12/13

Continued of page 4

Trade name: TLR4 Agonist (Salmonella) Explorer Set I TLRpure™

13 Disposal considerations

WASTE TREATMENT METHODS:

- **Recommendation:** All waste must be handled in accordance with local, state and federal regulations. This material and its container must be disposed of in a safe way.

UNCLEANED PACKAGING:

- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

UN-NUMBER:

- ADR, ADN, IMDG, IATA: Void

UN PROPER SHIPPING NAME:

- ADR, ADN, IMDG, IATA: Void

TRANSPORT HAZARD CLASS(ES):

- ADR, ADN, IMDG, IATA: Void

PACKING GROUP:

- ADR, IMDG, IATA: Void

ENVIRONMENTAL HAZARDS:

- **Marine pollutant:** No

- **Special precautions for user:** Not applicable
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable
- **UN "Model Regulation":** Not applicable

15 Regulatory information

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This 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. For research use only. Not for drug, household or other uses.

- **Department issuing MSDS:** Customer service
- **Contact:** tel. +44 (0) 1684 851 274
- **Abbreviations and acronyms:** RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organization 35.0.2 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)