

Safety Data Sheet
acc. to OSHA HCS

Page 1/7

Printing date 06/10/2015

Reviewed on 06/10/2015

1 Identification

- **Product identifier**
- **Trade name:** Immun-Star™ Enhancer
- **Catalog or product number:** 1705019, 1705019EDU, 9702900
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bio-Rad Laboratories, Life Science Group
2000 Alfred Nobel Drive
Hercules, California 94547 (510)741-1000
- **Information department:**
Technical services, customer support
lsg_techserv_us@bio-rad.com
- **Emergency telephone number:**
1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT.
510-741-1000

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified according to the Globally Harmonized System (GHS).
- **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 was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.
The classification was made according to OSHA 29CFR 1910.1200 and 1910.1030, and is expanded upon from company and/or literature information.
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:** Contact with acids may cause release of toxic gases
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Substances
- **CAS No. Description:**
7732-18-5 water

(Contd. on page 2)
US

Safety Data Sheet
acc. to OSHA HCS

Page 2/7

Printing date 06/10/2015

Reviewed on 06/10/2015

Trade name: Immun-Star™ Enhancer

(Contd. of page 1)

- **Identification number(s):**
 - **EC number:** 231-791-2
 - **Chemical characterization:** Mixtures
 - **Description:** Mixture of the substances listed below with non-hazardous additions.
 - **Listing of dangerous and non-hazardous components:**
- | | |
|---------------------------------------|----------|
| Poly(benzyltributyl)ammonium chloride | 1.0-2.5% |
|---------------------------------------|----------|
- **Additional information** For the wording of the listed risk phrases refer to section 15.

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** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Induce vomiting and call for medical help.
- **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 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**
CO2, extinguishing 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:** No special measures required.

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** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.

(Contd. on page 3)
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Safety



Safety Data Sheet acc. to OSHA HCS

Page 3/7

Printing date 06/10/2015

Reviewed on 06/10/2015

Trade name: Immun-Star™ Enhancer

(Contd. of page 2)

- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components 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 that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures** The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves.
- **Material of gloves:** Synthetic gloves
- **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:** Safety glasses

9 Physical and chemical properties

• Information on basic physical and chemical properties

• General Information

• Appearance:

| | |
|------------------|-----------------|
| Form: | Liquid |
| Color: | Colorless |
| Odor: | Odorless |
| Odour threshold: | Not determined. |

• **pH-value at 20 °C:** 9,5

• Change in condition

| | |
|------------------------------|--------------|
| Melting point/Melting range: | 0 °C |
| Boiling point/Boiling range: | undetermined |

• **Flash point:** Not applicable

• **Flammability (solid, gaseous)** Not applicable.

• Ignition temperature:

| | |
|----------------------------|-----------------|
| Decomposition temperature: | Not determined. |
|----------------------------|-----------------|

• **Auto igniting:** Product is not selfigniting.

(Contd. on page 4)

US



Safety Data Sheet acc. to OSHA HCS

Page 4/7

Printing date 06/10/2015

Reviewed on 06/10/2015

Trade name: Immun-Star™ Enhancer

(Contd. of page 3)

| | |
|---|---|
| • Danger of explosion: | Product does not present an explosion hazard. |
| • Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| • Vapor pressure at 20 °C: | 23 hPa |
| • Density at 20 °C: | 1 g/cm ³ |
| • 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. |
| • Viscosity: | |
| dynamic: | Not determined. |
| kinematic: | Not determined. |
| • Solvent content: | |
| Organic solvents: | 0,0 % |
| Water: | 95,0 % |
| • Solids content: | 3,0 % |
| • Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **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**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** No sensitizing effects 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:

(Contd. on page 5)

US



Safety Data Sheet
acc. to OSHA HCS

Page 5/7

Printing date 06/10/2015

Reviewed on 06/10/2015

Trade name: Immun-Star™ Enhancer

(Contd. of page 4)

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

• **Carcinogenic categories**

• **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

• **NTP (National Toxicology Program)**

None of the ingredients is listed.

• **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

• **Target organs:** Not applicable.

12 Ecological Information

• **Toxicity**

• **Aquatic toxicity:** No further relevant information available.

• **Persistence and degradability:** No further relevant information available.

• **Behavior 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.

13 Disposal considerations

• **Waste treatment methods**

• **Recommendation**

Hand over to hazardous waste disposers.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

• **Uncleaned packagings:**

• **Recommendation:** Disposal must be made according to official regulations.

• **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

• **UN-Number**

• **DOT, ADR, ADN, IMDG, IATA**

Void

• **UN proper shipping name**

• **DOT, ADR, ADN, IMDG, IATA**

Void

(Contd. on page 6)

US



Safety Data Sheet
acc. to OSHA HCS

Page 6/7

Printing date 06/10/2015

Reviewed on 06/10/2015

Trade name: Immun-Star™ Enhancer

(Contd. of page 5)

• **Transport hazard class(es)**

• **DOT, ADR, ADN, IMDG, IATA**

• **Class**

Void

• **Packing group**

• **DOT, 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.

• **Transport/Additional information:**

Not dangerous according to the above specifications.

• **UN "Model Regulation":**

15 Regulatory information

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

• **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)**

• **Section 302/304 (40CFR355.30 / 40CFR355.40):**

None of the ingredients is listed.

• **Section 313 (40CFR372.65):**

None of the ingredients is listed.

• **TSCA (Toxic Substances Control Act):**

7732-18-5 water

• **Carcinogenic categories**

• **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

• **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

• **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

• **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

• **National regulations**

• **Water hazard class:** Generally not hazardous for water.

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

(Contd. on page 7)

US



Safety Data Sheet
acc. to OSHA HCS

Page 7/7

Printing date 06/10/2015

Reviewed on 06/10/2015

Trade name: Immun-Star™ Enhancer

(Contd. of page 6)

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.

* **Department issuing SDS:** Environmental Health and Safety.

* **Contact:**

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

* **Date of preparation / last revision** 06/10/2015 / -

* **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

* **Data compared to the previous version altered.**

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