SAFETY DATA SHEET

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

Identification of the substance/preparation

<table>
<thead>
<tr>
<th>Product code</th>
<th>14287080</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>Dulbecco's Phosphate-Buffered Saline (D-PBS) (1X), liquid</td>
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</tbody>
</table>

Company/Undertaking Identification

Life Technologies
5791 VAN ALLEN WAY
PO BOX 6482
CARLSBAD, CA 92008
+1 760 603 7200

INVITROGEN CORPORATION
5250 MAINWAY DRIVE
BURLINGTON, ONT
CANADA L7L 6A4
800/263-6236

24 hour Emergency Response:
866-536-0631
301-431-8585
Outside of the U.S. +1-301-431-8585

For research use only. Not intended for human or animal diagnostic or therapeutic uses.
2. Hazards identification

GHS - Classification

Signal Word
not hazardous

Health Hazard
not hazardous

Physical Hazards
not hazardous

Principle Routes of Exposure/
Potential Health effects

Eyes
May cause eye irritation with susceptible persons.

Skin
May cause skin irritation in susceptible persons.

Inhalation
May be harmful by inhalation.

Ingestion
May be harmful if swallowed.

Specific effects

Carcinogenic effects
none

Mutagenic effects
none

Reproductive toxicity
none

Sensitization
none

Target Organ Effects
No known effects under normal use conditions.

HMIS

<table>
<thead>
<tr>
<th></th>
<th>0</th>
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</thead>
<tbody>
<tr>
<td>Health</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

3. Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

4. First aid measures
Skin contact
Rinse with plenty of water. If symptoms arise, call a physician.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Ingestion
Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.

Inhalation
Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.

Notes to physician
Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Special protective equipment for firefighters
Wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

Personal precautions
Use personal protective equipment.

Methods for cleaning up
Soak up with inert absorbent material.

Environmental precautions
Prevent further leakage or spillage if safe to do so.

See Section 12 for additional information.

7. Handling and storage

Handling
Always wear recommended Personal Protective Equipment. No special handling advice required.

Storage
Keep in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Exposure limits
We are not aware of any national exposure limit.

Engineering measures
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment
Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection
In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection
Impervious gloves.

Eye protection
Safety glasses with side-shields.

Skin and body protection
Lightweight protective clothing.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
Prevent product from entering drains.
9. Physical and chemical properties

<table>
<thead>
<tr>
<th>General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
</tr>
<tr>
<td><strong>Odor</strong></td>
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<tr>
<td><strong>Boiling Point/Range</strong></td>
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<tr>
<td><strong>Melting point/range</strong></td>
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<tr>
<td><strong>Flash point</strong></td>
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<tr>
<td><strong>Autoignition temperature</strong></td>
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<tr>
<td><strong>Oxidizing properties</strong></td>
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<tr>
<td><strong>Water solubility</strong></td>
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</table>

10. Stability and reactivity

| Stability | Stable under normal conditions. |
| Materials to avoid | No dangerous reaction known under conditions of normal use. |
| Hazardous decomposition products | None under normal use |
| Polymerization | Hazardous polymerisation does not occur. |

11. Toxicological information

**Acute toxicity**

- not hazardous

**Principle Routes of Exposure/ Potential Health effects**

| Eyes | May cause eye irritation with susceptible persons. |
| Skin | May cause skin irritation in susceptible persons. |
| Inhalation | May be harmful by inhalation. |
| Ingestion | May be harmful if swallowed. |

- **Carcinogenic effects**: none
- **Mutagenic effects**: none
- **Reproductive toxicity**: none
- **Sensitization**: none

**Target Organ Effects**

- No known effects under normal use conditions.

12. Ecological information

| Ecotoxicity effects | No information available. |
| Mobility | No information available. |
| Biodegradation | Inherently biodegradable |
| Bioaccumulation | Does not bioaccumulate. |
13. Disposal considerations

Dispose of in accordance with local regulations.

14. Transport information

IATA

<table>
<thead>
<tr>
<th>Proper shipping name</th>
<th>Not classified as dangerous in the meaning of transport regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard class</td>
<td>none</td>
</tr>
<tr>
<td>Subsidiary Class</td>
<td>none</td>
</tr>
<tr>
<td>Packing group</td>
<td>none</td>
</tr>
<tr>
<td>UN-No</td>
<td>None</td>
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15. Regulatory information

U.S. Federal Regulations

SARA 313
This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain HAPs.

U.S. State Regulations

California Proposition 65
This product does not contain chemicals listed under Proposition 65

WHMIS Hazard Class
Non-controlled

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

16. Other information

Reason for Revision
(M)SDS sections updated.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.
The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

End of Safety Data Sheet