

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

revised on: 14.07.2022

Version number 4

Creation Date: 25.02.2016

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

- **1.1 Product identifier**
- **Trade name: Phosphate-buffered saline (PBS)**
- **Article number:** 8461
- **CAS Number:** -
- **Registration number** This product is a mixture. UK REACH registration numbers see section 3.
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture**  
Industrial use  
Laboratory chemicals  
Reagent for analysis
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Th. Geyer GmbH & Co. KG  
Dornierstr. 4 – 6  
D-71272 Renningen  
  
Tel.: +49(0)7159-1637-0, Fax:+49 (0)7159/18417  
www.thgeyer.de  
sicherheitsdatenblaetter@thgeyer.de
- **Further information obtainable from:** Product management department
- **1.4 Emergency telephone number:**  
National Poisons Information Service  
City Hospital  
Dudley Road  
Birmingham B18 7QH  
Tel.:Emergency: (00 44) 87 06 00 62 66  
Members of the public seeking specific information on poisons should contact:  
In England and Wales: NHS 111 - dial 111  
In Scotland: NHS 24 - dial 111

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The product is not classified according to the GB CLP (1272/2008) regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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### SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**  
Supply fresh air.  
Seek medical treatment in case of complaints.
- **After skin contact:**  
Remove contaminated clothing.  
Wash with water and soap.  
Consult a doctor if symptoms persist.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.  
Remove contact lenses
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
Consult a doctor if you feel unwell.
- **Information for doctor:** Please observe safety data sheet/label.
- **4.2 Most important symptoms and effects, both acute and delayed**  
Gastric or intestinal disorders  
Coughing  
Nausea
- **4.3 Indication of any immediate medical attention and special treatment needed** Symptomatic treatment.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet.
- **5.2 Special hazards arising from the substance or mixture**  
Not combustible.  
In case of fire, the following can be released:  
Potassium oxides  
hydrogen chloride gas  
Sodium oxide  
Phosphorus oxides  
Ambient fire may liberate hazardous vapours.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Do not inhale explosion gases or combustion gases.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Prevent fire extinguishing water from contaminating surface water or the ground water system.

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### SECTION 6: Accidental release measures

#### · 6.1 Personal precautions, protective equipment and emergency procedures

- Avoid formation of dust.
- Avoid contact with eyes and skin.
- Do not inhale dust.
- Ensure adequate ventilation.

#### · 6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.

#### · 6.3 Methods and material for containment and cleaning up:

- Cover drains.
- Collect, dike, and pump out.
- Take up dry.
- Dispose of the material collected according to regulations.

#### · 6.4 Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

### SECTION 7: Handling and storage

#### · 7.1 Precautions for safe handling

- Store in cool, dry place in tightly closed receptacles.
- Keep away from heat and direct sunlight.
- Apply the general protection and hygiene measures for the handling with chemicals.
- No special measures required.

#### · Information about fire - and explosion protection:

- Substance itself does not burn, tuning measures to environment

#### · 7.2 Conditions for safe storage, including any incompatibilities

##### · Storage:

##### · Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

##### · Information about storage in one common storage facility: Store away from water.

##### · Further information about storage conditions:

- Protect from humidity and water.
- Store in dry conditions.

##### · Storage class: 13

#### · 7.3 Specific end use(s) No further relevant information available.

### SECTION 8: Exposure controls/personal protection

#### · 8.1 Control parameters

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

##### · 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.

#### · 8.2 Exposure controls

##### · Personal protective equipment:

##### · General protective and hygienic measures:

- The usual precautionary measures are to be adhered to when handling chemicals.

##### · Respiratory protection: Not required.

##### · Protection of hands:



Protective gloves

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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation  
Labsolute@Sensitive

- **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.

NBR: acrylonitrile-butadiene rubber

Material thickness > 0.11 mm

- **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.

level 6 for application > 480 min

- **Eye protection:**



Safety glasses

- **Body protection:**



Protective work clothing (e. g. safety shoes EN ISO 20345, long-sleeved protective working garments).

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

<b>Form:</b>	Tablets
<b>Colour:</b>	White
<b>Odour:</b>	Characteristic

- **pH-value at 20 °C:** 7.4

- **Change in condition**

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	Undetermined.

- **Flash point:** Not applicable.

- **Flammability (solid, gas):** Not determined.

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Product does not present an explosion hazard.

- **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

- **Vapour pressure:** Not applicable.

- **Density:** Not determined.

- **Relative density** Not determined.

- **Vapour density** Not applicable.

- **Evaporation rate** Not applicable.

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· <b>Solubility in / Miscibility with water:</b>	Insoluble.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
<b>VOC (EC)</b>	0.00 %
<b>Solids content:</b>	100.0 %
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** Stable with proper storage and handling.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Protect from humidity.
- **10.5 Incompatible materials:** Avoid contact with other chemicals.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods** Observe local (country-specific) regulations and laws
- **Recommendation**  
Smaller quantities can be disposed of with household waste.  
Chemicals must be disposed of in compliance with the respective national regulations.

- **European waste catalogue**

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08
06 00 00	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 03 00	wastes from the MFSU of salts and their solutions and metallic oxides
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- |  |                 |
|--|-----------------|
| · <b>14.1 UN-Number</b>  |                 |
| · <b>ADR, ADN, IMDG, IATA</b>  | not regulated   |
| · <b>14.2 UN proper shipping name</b>  |                 |
| · <b>ADR, ADN, IMDG, IATA</b>  | not regulated   |
| · <b>14.3 Transport hazard class(es)</b>   |                 |
| · <b>ADR, ADN, IMDG, IATA</b>  |                 |
| · <b>Class</b>   | not regulated   |
| · <b>14.4 Packing group</b>  |                 |
| · <b>ADR, IMDG, IATA</b>   | not regulated   |
| · <b>14.5 Environmental hazards:</b>   | Not applicable. |
| · <b>14.6 Special precautions for user</b>                                       | Not applicable. |
| · <b>Hazard identification number (Kemler code):</b>                             | -               |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | not regulated   |

### SECTION 15: Regulatory information

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

- **Inventory of Hazardous Chemicals**

None of the ingredients is listed.

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

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· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **National regulations:**

· **Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

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

### SECTION 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.

Application, use and handling of our products take place out of our control and are solely your responsibility.

· **Department issuing SDS:** Product management

· **Contact:** Product management

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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