

# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### Product identifiers

Product name:  $\beta$ -Mercapthoethanol 50 mM in PBS  
Product number: P07-05020, P07-05100  
Brand: PAN Biotech

### Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances

### Details of the supplier of the safety data sheet

Company: PAN Biotech GmbH  
Am Gewerbepark 13  
94501 Aidenbach  
GERMANY  
Telephone: +49-(0)8543-6016-30  
Fax: +49-(0)8543-6016-49  
E-mail: info@pan-biotech.de

### Emergency telephone number

Emergency phone: +49-(0)8543-6016-30 or +49 151 51557123

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008.

Skin sensitiser (Category 1), H317

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word: Warning

### Hazard statements

H317: May cause an allergic skin reaction.

### Precautionary statements

P302 + P350: IF ON SKIN: Wash with plenty of soap and water.  
P273: Avoid release to the environment.  
P333 + P313: If skin irritation or rash occurs: Get medical advice/attention  
P280: Wear protective gloves/ eye protection/ face protection.  
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.  
P272: Contaminated work clothing should not be allowed out of the workplace.

### Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component name	CAS-Nr.	EG-Nr.	Content (weight %)
$\beta$ -Mercaptoethanol	60-24-2	200-464-6	<1
Phosphate buffered saline	mixture	mixture	≥99

#### 4. FIRST AID MEASURES

##### **Skin contact**

Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Consult a physician.

##### **Eye contact**

Rinse immediately, also under the eyelids, with plenty of water for at least 15 minutes. Consult a physician.

##### **Ingestion**

Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Consult a physician.

##### **Inhalation**

Remove person to fresh air. If not breathing, give artificial respiration. Consult a physician.

##### **Notes to physician**

Treat symptomatically.

#### 5. FIREFIGHTING MEASURES

##### **Extinguishing Media**

##### **Suitable extinguishing media**

Use water spray, carbon dioxide, dry chemical, or alcohol resistant foam.

##### **Special hazards arising from the substance or mixture**

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>).

##### **Special Protective equipment for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

##### **Further information**

No data available.

#### 6. ACCIDENTAL RELEASE MEASURES

##### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

##### **Methods for cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

##### **Environmental precautions**

Do not let product enter drain.

#### 7. HANDLING AND STORAGE

##### **Handling**

Always wear recommended personal protective equipment. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

##### **Storage**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### **Control parameters**

##### **Components with workplace control parameters**

##### **Exposure controls**

##### **Appropriate engineering controls**

Handle in accordance with the good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

##### **Eye/face protection**

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

##### **Skin 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

#### **Body Protection**

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### **Environmental exposure controls**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Form: Liquid
<b>pH</b>	No data available
<b>BP/BP Range</b>	No data available
<b>MP/MP Range</b>	No data available
<b>Flash Point</b>	No data available
<b>Flammability</b>	No data available
<b>Autoignition Temp</b>	No data available
<b>Oxidizing Properties</b>	No data available
<b>Explosive Properties</b>	No data available
<b>Explosion Limits</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Partition Coefficient n-Octanol/water</b>	No data available
<b>Viscosity</b>	No data available
<b>Vapor Density</b>	No data available
<b>Saturated Vapor Conc.</b>	No data available
<b>Evaporation Rate</b>	No data available
<b>Relative Density</b>	No data available
<b>Decomposition Temp.</b>	No data available
<b>Solvent Content</b>	No data available
<b>Water Content</b>	No data available
<b>Surface Tension</b>	No data available
<b>Conductivity</b>	No data available
<b>Solubility</b>	No data available

### **10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under recommended storage conditions.
<b>Materials to avoid</b>	No data available
<b>Hazardous decomposition products</b>	No data available
<b>Polymerisation</b>	Hazardous polymerisation does not occur.
<b>Special hazards arising from the substance or mixture</b>	
Carbon oxides, Nitrogen oxides (NO <sub>x</sub> ).	

### **11. TOXICOLOGICAL INFORMATION**

#### **Acute toxicity (b-mercaptoethanol >99%)**

LD50 Oral – rat – 98 – 162 mg/kg

LC50 Inhalation – rat – 4h – 2 mg/L

LC50 Inhalation – rat – 4h – 625 ppm

LD50 Dermal – rabbit – 112 – 224 mg/kg

#### **Skin corrosion/irritation**

Conclusive but not sufficient for classification

#### **Serious eye damage/eye irritation**

Conclusive but not sufficient for classification

#### **Respiratory or skin sensitisation**

May cause sensitisation by skin contact.

#### **Germ cell mutagenicity**

Conclusive but not sufficient for classification

#### **Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

**Reproductive toxicity** no data available  
**Specific target organ toxicity – single exposure** No data available  
**Specific target organ toxicity – repeated exposure** No data available  
**Aspiration hazard** No data available

**Additional Information**

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects**

Toxicity to fish LC – Leuciscus idus (Golden orfe) – 46 – 100 mg/L – 96.0 h  
Toxicity to aquatic invertebrates EC50 – Daphnia – 0.89 mg/L – 48 h  
EC50 – Desmodesmus subspicatus (green algae) – 12 mg/L–72 h  
Toxicity to bacteria LC50 – Bacteria – 125 mg/L – 17 h

**Persistence and degradability**

Biodegradability no data available

**Bioaccumulative potential** no data available

**Mobility in soil** no data available

**Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Other adverse effects** no data available

## 13. DISPOSAL CONSIDERATIONS

**Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non – recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

**UN-number**

ADR/RID: - IMDG: - IATA: -

**UN proper shipping name**

ADR/RID: Kein Gefahrgut IMDG: not dangerous goods IATA: not dangerous goods

**Transport hazard class(es)**

ADR/RID: - IMDG: - IATA: -

**Packaging group**

ADR/RID: - IMDG: - IATA: -

**Environmental hazards**

ADR/RID: no IMDG Marine Pollutant: no IATA: no

**Special precautions for user**

No data available

## 15. REGULATORY INFORMATION

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

This safety datasheet complies with the requirements of Regulation (EG) Nr. 1907/2006

**Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

## 16. OTHER INFORMATION

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PAN Biotech GmbH shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.pan-biotech.com](http://www.pan-biotech.com) or reverse side of invoice or packing slip for additional terms and conditions of sale.