SAFETY DATA SHEET

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

1.1. Product identifiers

Product name: ß-Mercapthoethanol 50 mM in DPBS
Product number: P07-05020, P07-05100

Brand: PAN Biotech

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances

1.3. Details of the supplier of the safety data sheet

Company: PAN Biotech GmbH
Am Gewerbepark 6
94501 Aidenbach
GERMANY

Telephone: +49-(0)8543-6016-30
Fax: +49-(0)8543-6016-49
E-mail: info@pan-biotech.de

1.4. Emergency telephone number

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

2. HAZARDS INDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
Skin sensitization (Category 1), H317

2.2. Label Elements

Labelling according to Regulation (EC) No 1272/2008
Pictogram

Signal word Warning

Hazard statements
H317 May cause an allergic skin reaction.
Precautionary statements
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
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.

P07-05020
P07-05100

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. 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

3.1. Substances

Not applicable

3.2. Mixtures

Synonyms:

Component	CAS Number	Classification		Concentration
ß-Mercapthoethanol	60-24-2	H301 Acute Tox. 3	Toxic if swallowed	<1 (weight-%)
		H310 Acute Tox. 2	Fatal in contact with Skin	
		H331 Acute Tox. 3	Toxic if inhaled	
		H314 Skin Corr. 1B	Causes severe skin burns and eye damage.	
		H318 Eye Dam. 1	Causes serious eye damage.	
		H317 Skin Sens. 1A	May cause an allergic skin reaction.	
		H373 STOT RE 2	May cause damage to organs through prolonged or repeated exposure.	
		H400 Aquatic Acute 1	Very toxic to aquatic life.	
		H410 Aquatic Chronic 1	Very toxic to aquatic life with long lasting effects.	

4. FIRST AID MEASURES

4.1. Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If breathing becomes difficult, call a physician. If not breathing, give artificial respiration.

In case of skin contact

In case of contact, immediately wash skin with soap and copious amounts of water.

In case of eye contact

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician if symptoms persist.

If swallowed

If swallowed, wash out mouth with water provided person is conscious. Call a physician if symptoms persist.

4.2. Most important symptoms and effects, both acute and delayed

May cause allergic skin reactions.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas.

6.2. Environmental precautions

Do not let product enter drains

6.3. Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

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

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Normal measures for preventive fire protection.

7.2. Conditions for safe storage, including any incompatibilities

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.

Recommended storage temperature: +2 °C bis + 8 °C

7.3. Specific end use(s)

No further information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters: not required

8.2. Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

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

Use impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance Form:	liquid
Odour	no data available
Odour Threshold	no data available
pH	no data available
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
Flammability	no data available
Upper/lower flammability or explosive limits	no data available
Flashpoint	no data available
Evaporationsrate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	water soluble
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

10. STABILITY AND REACTIVITY

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1. Information of toxicological effects

Acute toxicity (ß-Mercapthoethanol > 99 %)

LC50 inhale - rat - 4 h - 2,03 mg/l
LD50 oral - rat - 244 mg/kg
LD50 skin - rabbit - 112 mg/kg

Skin corrosion/irritation	May cause skin irritation.
Serious eye damage/eye irritation	May cause eye irritation.
Inhalation:	Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion:	May be harmful if swallowed.
Respiratory or skin sensitization	Sensitization through skin contact is Possible.
Germ cell mutagenicity	no data available

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

12.1. Toxicity (ß-Mercapthoethanol < 99 %))

EC50 - 72 h - 12 mg/l - Algae
EC50 - 48 h - 1,52 mg/l - Daphnia Magna

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1. UN number

ADR/RID: - IMDG: - IATA: -

14.2. UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

14.3. Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

14.4. Packaging group

ADR/RID: - IMDG: - IATA: -

14.5. Environmental hazards

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

14.6. Special precautions for user

No data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

National regulations

Water hazard class: WGK 3, highly hazardous to water - Identification number 884 - List of substances hazardous to water (classes 1-3) in AwSV (= Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen.

15.2. Chemical Safety Assessment

No data available

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 or reverse side of invoice or packing slip for additional terms and conditions of sale.