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

**1.1. Product identifier**

PBS 7.4 10X

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

**Use of the substance/mixture**

Laboratory use

**Uses advised against**

Any non-intended use.

**1.3. Details of the supplier of the safety data sheet**

Company name: Dr. Lohmann Diaclean GmbH

Street: Oespeler Kirchweg 10

Place: D-44379 Dortmund

Telephone: +49 (0)231 - 177 285 40

Responsible Department: Dr. Gans-Eichler

Chemieberatung GmbH

Raesfeldstr. 22

D-48149 Münster

**1.4. Emergency telephone number:**

+49 (0)231 - 177 285 40 Only available during office hours.

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

Regulation (EC) No. 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

**2.2. Label elements**

**Additional advice on labelling**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

**2.3. Other hazards**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII. No risks worthy of mention. Please observe the information on the safety data sheet at all times.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

The product does not contain dangerous substances according to REGULATION (EU) No. 2015/830, Annex II, Part A, 3.2.2. that must be mentioned in Chapter 3.

**Further Information**

Product does not contain listed SVHC substances > 0.1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH).

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**After inhalation**

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract
irritation, consult a physician.

After contact with skin
Gently wash with plenty of soap and water. In case of skin irritation, consult a physician.

After contact with eyes
Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion
Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed
No information available.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Carbon dioxide (CO2). Dry extinguishing powder. alcohol resistant foam. Atomized water.

Unsuitable extinguishing media
High power water jet.

5.2. Special hazards arising from the substance or mixture
Can be released in case of fire: Phosphorus oxides.

5.3. Advice for firefighters
In case of fire: Wear self-contained breathing apparatus.

Additional information
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
See protective measures under point 7 and 8.

6.2. Environmental precautions
Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Wear suitable protective clothing. (See section 8.)

Advice on protection against fire and explosion
Usual measures for fire prevention.
Further information on handling
General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep container tightly closed in a cool, well-ventilated place.

Advice on storage compatibility

Further information on storage conditions
Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
Recommended storage temperature: 20°C
Protect against: Light. UV-radiation/sunlight. heat. moisture.

7.3. Specific end use(s)
See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Additional advice on limit values
To date, no national critical limit values exist.

8.2. Exposure controls
Appropriate engineering controls
No special measures are necessary.

Protective and hygiene measures
Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

Eye/face protection
Wear safety glasses; chemical goggles (if splashing is possible). DIN EN 166

Hand protection
In case of prolonged or frequently repeated skin contact:
Wear suitable gloves.
Suitable material:
FKM (fluororubber). - Thickness of glove material: 0,4 mm
Breakthrough time >= 8 h
Butyl rubber. - Thickness of glove material: 0,5 mm
Breakthrough time >= 8 h
CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm
Breakthrough time >= 8 h
NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm
Breakthrough time >= 8 h
PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm
Breakthrough time >= 8 h

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection
Suitable protective clothing: Lab apron.
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.
Respiratory protection
With correct and proper use, and under normal conditions, breathing protection is not required.

Environmental exposure controls
No special precautionary measures are necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: not determined
Odour: characteristic
pH-Value: not determined

Changes in the physical state
Melting point: not determined
Initial boiling point and boiling range: not determined
Sublimation point: not determined
Softening point: not determined
Pour point: not determined
Flash point: not determined
Sustaining combustion: Not sustaining combustion

Explosive properties
none
Lower explosion limits: not determined
Upper explosion limits: not determined
Ignition temperature: not determined
Auto-ignition temperature
Gas: not determined
Decomposition temperature: not determined

Oxidizing properties
none
Vapour pressure: not determined
Density: not determined
Water solubility: not determined

Solubility in other solvents
not determined
Partition coefficient: not determined
Viscosity / dynamic: not determined
Viscosity / kinematic: not determined
Flow time: not determined
Vapour density: not determined
Evaporation rate: not determined
Solvent separation test: not determined
Solvent content: not determined

9.2. Other information
Solid content: not determined
SECTION 10: Stability and reactivity

10.1. Reactivity
No information available.

10.2. Chemical stability
The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions
No information available.

10.4. Conditions to avoid
- Protect against: UV-radiation/sunlight, heat.

10.5. Incompatible materials
- Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

10.6. Hazardous decomposition products
- Can be released in case of fire: Phosphorus oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
    Toxicokinetics, metabolism and distribution
    No data available.
    Acute toxicity
    - Based on available data, the classification criteria are not met.
    Irritation and corrosivity
    - Based on available data, the classification criteria are not met.
    Sensitising effects
    - Based on available data, the classification criteria are not met.
    Carcinogenic/mutagenic/toxic effects for reproduction
    - 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.
    Specific effects in experiment on an animal
    - No data available.

SECTION 12: Ecological information

12.1. Toxicity
    - The product has not been tested.

12.2. Persistence and degradability
    - The product has not been tested.

12.3. Bioaccumulative potential
    - No indication of bioaccumulation potential.

12.4. Mobility in soil
    - No data available.

12.5. Results of PBT and vPvB assessment
    - The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
12.6. Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to EAKV:

Waste disposal number of waste from residues/unused products

160304 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; inorganic wastes other than those mentioned in 16 03 03

Waste disposal number of used product

160304 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; inorganic wastes other than those mentioned in 16 03 03

Waste disposal number of contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TII/IATA-DGR)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.
14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

refer to chapter 6-8

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not relevant

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): No information available.
2004/42/EC (VOC): No information available.
Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional information

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No (mixture): not relevant

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

SECTION 16: Other information

Changes

Rev. 1.0; Initial release: 24.07.2018

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect level
NTP: National Toxicology Program
N/A: not applicable
OSHA: Occupational Safety and Health Administration
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de
<table>
<thead>
<tr>
<th>Classification according to EC regulation 1272/2008 (CLP):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health hazards: Calculation method.</td>
</tr>
<tr>
<td>Environmental hazards: Calculation method.</td>
</tr>
<tr>
<td>Physical hazards: On basis of test data and / or calculated and / or estimated.</td>
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</tbody>
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The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)