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

1.1. Product identifier

ACSF

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
Tel.: +49(0)251/394868-69
Raesfeldstr. 22
www.tge-consult.de
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

Chemical characterization

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

#### 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
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<tr>
<td>Colour</td>
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<tr>
<td>Odour</td>
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<tr>
<td>pH-Value</td>
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</tr>
<tr>
<td>Changes in the physical state</td>
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</tr>
<tr>
<td>Melting point</td>
<td>not determined</td>
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<tr>
<td>Initial boiling point and boiling range</td>
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</tr>
<tr>
<td>Sublimation point</td>
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<tr>
<td>Softening point</td>
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<tr>
<td>Pour point</td>
<td>not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>not determined</td>
</tr>
<tr>
<td>Sustaining combustion</td>
<td>Not sustaining combustion</td>
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<tr>
<td>Explosive properties</td>
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<tr>
<td>Lower explosion limits</td>
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<tr>
<td>Upper explosion limits</td>
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<tr>
<td>Ignition temperature</td>
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<tr>
<td>Auto-ignition temperature</td>
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</tr>
<tr>
<td>Gas</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
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<tr>
<td>Oxidizing properties</td>
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<tr>
<td>Vapour pressure</td>
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<tr>
<td>Density</td>
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<td>Water solubility</td>
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<td>Solubility in other solvents</td>
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<tr>
<td>Partition coefficient</td>
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<td>Viscosity / dynamic</td>
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<tr>
<td>Viscosity / kinematic</td>
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<tr>
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<td>Vapour density</td>
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<td>Evaporation rate</td>
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<tr>
<td>Solvent separation test</td>
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<td>Solvent content</td>
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</table>

9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid content</td>
<td>not determined</td>
</tr>
</tbody>
</table>
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

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
160306 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes other than those mentioned in 16 03 05

Waste disposal number of used product
160306 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes other than those mentioned in 16 03 05

Waste disposal number of contaminated packaging
150106 WASTE PACKAGING; ABSORBENTS, WIPECLOTHS, 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/ATA-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): - - not 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 (Ordninance 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
Classification according EC regulation 1272/2008 (CLP): - Classification procedure:
Health hazards: Calculation method.
Environmental hazards: Calculation method.
Physical hazards: On basis of test data and / or calculated and / or estimated.

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.)