**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**3020 Power Sprayable Seam Sealant K23020031AB**

Revision date: 04.09.2018  Product code: K23020031AB

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

#### 1.1. Product identifier

3020 Power Sprayable Seam Sealant K23020031AB

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

Use of the substance/mixture

Barrier (Sealant)

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

Company name: TUNAP GmbH & Co. KG
Street: Bürgermeister-Seidl-Str. 2
Place: D-82515 Wolfratshausen
Telephone: +49 (0) 8171/1600 - 0
Fax: +49 (0) 8171/1600 - 40
E-mail: sdb@tunap.com
Internet: www.tunap.com

#### 1.4. Emergency telephone number:

+49 (0) 30 30 686 790 (Giftnotruf Berlin)

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### SECTION 2: Hazards identification

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

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 2.2. Label elements

Regulation (EC) No. 1272/2008

Special labelling of certain mixtures

EUH210 Safety data sheet available on request.

#### 2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

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### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>90622-57-4</td>
<td>Hydrocarbons, C11-C12, isoalkanes, &lt;2% aromatics</td>
<td>5 - &lt; 10 %</td>
</tr>
<tr>
<td>918-167-1</td>
<td>Reaktionsmasse aus Octadecanamid, 12-hydroxy-N-[2-[1-oxodecyl]aminoc]ethyl] und N,N’-ethane-1,2-diylibis(12-hydroxyoctadecane-1-amid) und Decanamid, N,N’-ethandiylibis-</td>
<td>3 - &lt; 5 %</td>
</tr>
</tbody>
</table>

Full text of H and EUH statements: see section 16.

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

**General information**

First aider: Pay attention to self-protection! Remove persons to safety. Never give anything by mouth to an
unconscious person or a person with cramps.

After inhalation
Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin
Wash with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with eyes
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion
Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

4.2. Most important symptoms and effects, both acute and delayed
- Headache, nausea, dizziness, fatigue, skin irritation

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically. Call a POISON CENTER. Symptoms can occur only after several hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media
- Suitable extinguishing media
- Unsuitable extinguishing media
  High power water jet.

5.2. Special hazards arising from the substance or mixture
Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO2, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

5.3. Advice for firefighters
In case of fire and/or explosion do not breathe fumes. Move undamaged containers from immediate hazard area if it can be done safely. 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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear breathing apparatus if exposed to vapours/dusts/aerosols. Remove all sources of ignition. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protection equipment.

6.2. Environmental precautions
Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Ensure all waste water is collected and treated via a waste water treatment plant.

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). Clean contaminated articles and floor according to the environmental legislation.

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

- Observe instructions for use.
- Dust must be exhausted directly at the point of origin. Vapours/aerosols must be exhausted directly at the point of origin. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.
- When using do not eat, drink, smoke, sniff.
- Wear personal protection equipment (refer to section 8).

Advice on protection against fire and explosion

- Keep away from sources of ignition - No smoking.

Further information on handling

- Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

- Keep container tightly closed. Observe legal regulations and provisions.

Hints on joint storage

- Do not store together with: Oxidizing agents. Pyrophoric or self-heating substances. Food and feedingstuffs.

Further information on storage conditions

- Store in a cool dry place. Observe legal regulations and provisions.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>DNEL type</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reaktionamasse aus Octadecanamid, 12-hydroxy-N-[2-[(1-oxodecyl)amino]ethyl]-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>und N,N′-ethane-1,2-diylbis(12-hydroxyoctadecane-1-amid) und Decanamid, N,N′-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ethandiylibis-</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
<td>17.3 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>local</td>
<td>8.6 mg/m³</td>
</tr>
</tbody>
</table>

PNEC values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Environmental compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reaktionamasse aus Octadecanamid, 12-hydroxy-N-[2-[(1-oxodecyl)amino]ethyl]-</td>
<td>Freshwater</td>
<td>0,74 mg/l</td>
</tr>
<tr>
<td></td>
<td>und N,N′-ethane-1,2-diylbis(12-hydroxyoctadecane-1-amid) und Decanamid, N,N′-</td>
<td>Marine water</td>
<td>0,074 mg/l</td>
</tr>
<tr>
<td></td>
<td>ethandiylibis-</td>
<td>Soil</td>
<td>3714,9 mg/kg</td>
</tr>
</tbody>
</table>

Additional advice on limit values

- a no restriction
- b End of exposure or end of shift
- c at long term exposure: after several previous shifts
- d before next shift

- blood (B)
- Urine (U)
8.2. Exposure controls

Appropriate engineering controls
If handled uncovered, arrangements with local exhaust ventilation have to be used.

Protective and hygiene measures
Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Eye/face protection
Suitable eye protection: Tightly sealed safety glasses.
DIN EN 166

Hand protection
Protect skin by using skin protective cream. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Suitable material: NBR (Nitrile rubber) Breakthrough time (maximum wearing time) 480min Thickness of the glove material 0,45 mm
DIN EN 374

Skin protection
Wear suitable protective clothing. Take off immediately all contaminated clothing and wash it before reuse.

Respiratory protection
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
When exceeding the relevant workplace exposure limits, note the following:
Suitable respiratory protective equipment: Combination filter device (DIN EN 141).
Filtering device with filter or ventilator filtering device of type:
Observe the wear time limits as specified by the manufacturer.
Observe legal regulations and provisions.

Environmental exposure controls
Observe legal regulations and provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>pasty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>grey</td>
</tr>
<tr>
<td>Odour:</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

pH-Value (at 20 °C): DIN 19268

Changes in the physical state

<table>
<thead>
<tr>
<th>Flash point:</th>
<th>&gt; 200 °C ( ISO 3679 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower explosion limits:</td>
<td>0,4</td>
</tr>
<tr>
<td>Upper explosion limits:</td>
<td>7</td>
</tr>
<tr>
<td>Density (at 20 °C):</td>
<td>1,48 ( g/cm^3 ) ( DIN 51757 )</td>
</tr>
<tr>
<td>Viscosity / dynamic:</td>
<td>1,48 ( g/cm^3 ) ( DIN 53019-1 )</td>
</tr>
<tr>
<td>Viscosity / kinematic: (at 40 °C)</td>
<td>( &gt; 7 \text{ mm}^2/\text{s} ) ( DIN EN ISO 3104 )</td>
</tr>
<tr>
<td>Flow time: (at 20 °C)</td>
<td>DIN EN ISO 2431</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity
10.1. Reactivity
No information available.

10.2. Chemical stability
The product is stable under normal conditions.

10.3. Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharges.

10.5. Incompatible materials
Oxidizing agents. Pyrophoric or self-heating substances.

10.6. Hazardous decomposition products
Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO₂, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

Further information
Do not mix with other chemicals.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicokinetics, metabolism and distribution
There are no data available on the mixture itself.

Acute toxicity
Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>90622-57-4</td>
<td>Hydrocarbons, C11-C12, isooalkanes, &lt;2% aromatics</td>
<td>oral</td>
<td>LD₅₀ mg/kg</td>
<td>&gt; 5000</td>
<td>Rat</td>
<td>Study report (1988)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD₅₀ mg/kg</td>
<td>&gt; 2000</td>
<td>Rat</td>
<td>Study report (1989)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation (4 h) vapour</td>
<td>LC₅₀ mg/l</td>
<td>&gt; 25</td>
<td>Rat</td>
<td>Study report (2010)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation (4 h) aerosol</td>
<td>LC₅₀ mg/l</td>
<td>&gt; 5,11</td>
<td>Rat</td>
<td>Study report (2010)</td>
</tr>
</tbody>
</table>

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.

No indications of human carcinogenicity exist.

No indications of human germ cell mutagenicity exist.

No indications of human reproductive toxicity exist.

**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 information available.

**Additional information on tests**
The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

**SECTION 12: Ecological information**

### 12.1. Toxicity

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</th>
<th>Dose</th>
<th>[h]</th>
<th>[d]</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>90622-57-4</td>
<td>Hydrocarbons, C11-C12, isoalkanes, &lt;2% aromatics</td>
<td>Acute algae toxicity</td>
<td>ErC50 mg/l</td>
<td>&gt; 1000</td>
<td>72</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Study report; company data (1995)</td>
<td>OECD Guideline 201</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish toxicity</td>
<td>NOEC mg/l</td>
<td>0,209</td>
<td>28</td>
<td>Oncorhynchus mykiss</td>
<td>Company report (2010)</td>
<td>The aquatic toxicity was estimated by a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crustacea toxicity</td>
<td>NOEC mg/l</td>
<td>&gt; 1</td>
<td>21</td>
<td>Daphnia magna</td>
<td>Study report; company data (2012)</td>
<td>OECD Guideline 211</td>
</tr>
</tbody>
</table>

| Reaktionamasse aus Octadecanamid, 12-hydroxy-N-[2-[(1-oxodecyl)amino]ethyl]- und N,N’-ethane-1,2-diylbis(12-hydroxyoctadecane-1-amid) und Decanamid, N,N’-ethandiylibis- | Acute fish toxicity | LC50 mg/l | > 100 | 96 | Oncorhynchus mykiss | Study report (2010) | OECD Guideline 203 |
|         | Acute algae toxicity | ErC50 mg/l | 29,1 | 72 | Pseudokirchneriella subcapitata | Study report (2010) | OECD Guideline 201 |
|         | Acute crustacea toxicity | E950 mg/l | 94,9 | 48 | Daphnia magna | Study report (2010) | OECD Guideline 202 |
|         | Crustacea toxicity | NOEC mg/l | >= 20 | 21 | Daphnia magna | Study report (2014) | OECD Guideline 211 |
|         | Acute bacteria toxicity | (> 1000 mg/l) | | 3 | Activated sludge of a predominantly domestic sewag | Study report (2010) | EU Method C.11 |

### 12.2. Persistence and degradability
There are no data available on the mixture itself. AOX (mg/l): 0

### 12.3. Bioaccumulative potential
There are no data available on the mixture itself.

### Partition coefficient n-octanol/water

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reaktionamasse aus Octadecanamid, 12-hydroxy-N-[2-[(1-oxodecyl)amino]ethyl]- und N,N’-ethane-1,2-diylbis(12-hydroxyoctadecane-1-amid) und Decanamid, N,N’-ethandiylibis-</td>
<td>&gt; 6</td>
</tr>
</tbody>
</table>
12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No information available.

Further information

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

Waste disposal number of used product

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

Waste disposal number of contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

Contaminated packaging

Water (with cleaning agent). Completely emptied packages can be recycled.

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-TI/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
No dangerous good in sense of this transport regulation.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
No dangerous good in sense of this transport regulation.

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.

Additional information
Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

National regulatory information
Water contaminating class (D): 2 - clearly water contaminating

SECTION 16: Other information

Changes
This data sheet contains changes from the previous version in section(s): 1,4,10,11,14,15.

Abbreviations and acronyms
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA: International Air Transport Association
IMDG: International Maritime Code for Dangerous Goods
GHS: Globally Harmonized 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)
DNEL/DMEL: Derived No Effect Level / Derived Minimal Effect Level
WEL (UK): Workplace Exposure Limits
TWA (EC): Time-Weighted Average
ATE: Acute Toxicity Estimate
STEL (EC) Short Term Exposure Limit
LC50: Lethal Concentration
EC50: half maximal Effective Concentration
ErC50: means EC50 in terms of reduction of growth rate

Relevant H and EUH statements (number and full text)
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.
EUH066 Repeated exposure may cause skin dryness or cracking.
EUH210 Safety data sheet available on request.

Further Information
Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]:
Calculation method.
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.)