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

1.1. Product Identifier

Product Name: WOOD ADH.800 POLYURETHANE
Pure substance/mixture: Mixture

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

Recommended use: Adhesives.
Uses advised against: None known.

1.3. Details of the supplier of the safety data sheet

Company Name: Bostik AB
Address: Strandbadsvaegen 22, PO Box 903, 25109 Helsingborg, Sweden
Telephone: +46 42 19 50 00, Fax: +46 42 19 50 20
E-mail address: SDS.box-EU@bostik.com

1.4. Emergency telephone number

Emergency Telephone:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
<td>Category 4 - (H332)</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2 - (H315)</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2 - (H319)</td>
</tr>
<tr>
<td>Respiratory sensitisation</td>
<td>Category 1 - (H334)</td>
</tr>
<tr>
<td>Skin sensitisation</td>
<td>Category 1 - (H317)</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 2 - (H351)</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3 - (H335)</td>
</tr>
<tr>
<td>Specific target organ toxicity — repeated exposure</td>
<td>Category 2 - (H373)</td>
</tr>
</tbody>
</table>

2.2. Label Elements

Contains: 4,4’-Methylenebis(phenylisocyanate), Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-, Isocyanic acid, polymethylenebiphenylene ester, polymer with 1,2-ethanediamine, methylolxirane and 1,2-propanediol, Isocyanic acid, polymethylenebiphenylene ester
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Signal word
DANGER

Hazard statements
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure

EU Specific Hazard Statements
EUH204 - Contains isocyanates. May produce an allergic reaction

Precautionary statements
P102 - Keep out of reach of children
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P260 - Do not breathe vapour
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P284 - Wear respiratory protection
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor

Additional information
This product requires tactile warnings if supplied to the general public.

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. Type A1 according to standard EN 14387) is used. Reserved for industrial and professional use.

2.3. Other Hazards
No information available

PBT and vPvB assessment
The components in this formulation do not meet the criteria for classification as PBT or vPvB

SECTION 3: Composition/information on ingredients

3.1 Substances
Not applicable

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EC No.</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Specific concentration limit (SCL)</th>
<th>REACH Registration Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isocyanic acid, polymethylenepolypheny</td>
<td>-</td>
<td>67815-87-6</td>
<td>40 - &lt;80</td>
<td>STOT SE 3 (H335)</td>
<td></td>
<td>Exempt(P)</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>Concentration</th>
<th>Health Hazard(s)</th>
<th>Exempt(P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyurethane</td>
<td>618-498-9</td>
<td>9016-87-9</td>
<td>&gt;25 - &lt;40</td>
<td>STOT SE 3, STOT RE 2, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Acute Tox. 4</td>
<td>Exempt(P)</td>
</tr>
<tr>
<td>Isocyanic acid, polymethylene polyphenylene</td>
<td>618-498-9</td>
<td>9016-87-9</td>
<td>&gt;25 - &lt;40</td>
<td>STOT SE 3, STOT RE 2, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Acute Tox. 4</td>
<td>Exempt(P)</td>
</tr>
<tr>
<td>4,4'-Methylene diphenyl diisocyanate</td>
<td>202-966-0</td>
<td>101-68-8</td>
<td>1 - &lt;5</td>
<td>Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Carc. 2, Acute Tox. 4</td>
<td>Exempt(P)</td>
</tr>
<tr>
<td>Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-</td>
<td>227-534-9</td>
<td>5873-54-1</td>
<td>1 - &lt;5</td>
<td>Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Carc. 2, STOT SE 3, STOT RE 2</td>
<td>Exempt(P)</td>
</tr>
<tr>
<td>Benzene, 1,1'-methylenebis[2-isocyanato-]</td>
<td>219-799-4</td>
<td>2536-05-2</td>
<td>0.1 - &lt;1</td>
<td>Acute Tox. 4, Skin Irrit. 2</td>
<td>Exempt(P)</td>
</tr>
</tbody>
</table>
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| H- and EUH-phrases | Skin Irrit. 2 :: C>=5%
|--------------------|------------------------
| (H315) Eye Irrit. 2 | STOT SE 3 :: C>=5%
| (H319) Resp. Sens. 1 | STOT RE 2 :: C>=5%
| (H334) Skin Sens. 1 | Carc. 2 (H351)
| (H317) STOT SE 3 | STOT RE 2 (H373)

Full text of H- and EUH-phrases: see section 16

Note: ^ indicates not classified, however, the substance is listed in section 3 as it has an OEL

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice
Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation
May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical advice/attention.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact
May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor. Wash off immediately with soap and plenty of water for at least 15 minutes.

Ingestion
May produce an allergic reaction. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention. Clean mouth with water. Drink 1 or 2 glasses of water.

Self-protection of the first aider
Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information. Avoid breathing vapours or mists.

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

Symptoms
May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/or wheezing. Itching. Rashes. Hives. Burning sensation. Difficulty in breathing.

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

Note to doctors
May cause sensitisation in susceptible persons. Treat symptomatically.

SECTION 5: Firefighting measures
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5.1. Extinguishing media

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Full water jet. Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Product is or contains a sensitisier. May cause sensitisation by inhalation and skin contact. May cause sensitisation by skin contact.


5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapours or mists.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash it before reuse. Avoid breathing vapours or mists.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product.
7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

7.3. Specific end use(s)

Specific Use(s):
Adhesives.

Risk Management Methods (RMM): The information required is contained in this Safety Data Sheet.

Other information: Observe technical data sheet.

### SECTION 8: Exposure controls/Personal protection

#### 8.1. Control parameters

**Exposure Limits**

Only European Community Occupational Exposure Limits will be shown in this document. Please refer to regional SDS for further information.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Type</th>
<th>Exposure route</th>
<th>Derived No Effect Level (DNEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4’-Methylenediphenyl diisocyanate (101-68-8)</td>
<td>worker Short term</td>
<td>Dermal</td>
<td>50 mg/kg bw/d</td>
</tr>
<tr>
<td></td>
<td>Systemic health effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,4’-Methylenediphenyl diisocyanate (101-68-8)</td>
<td>worker Short term</td>
<td>Inhalation</td>
<td>0.1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Local health effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,4’-Methylenediphenyl diisocyanate (101-68-8)</td>
<td>worker Short term</td>
<td>Dermal</td>
<td>28700 µg/cm²</td>
</tr>
<tr>
<td></td>
<td>Local health effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,4’-Methylenediphenyl diisocyanate (101-68-8)</td>
<td>worker Long term</td>
<td>Inhalation</td>
<td>0.1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Systemic health effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,4’-Methylenediphenyl diisocyanate (101-68-8)</td>
<td>worker Long term</td>
<td>Inhalation</td>
<td>0.05 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Local health effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,4’-Methylenediphenyl diisocyanate (101-68-8)</td>
<td>worker Long term</td>
<td>Inhalation</td>
<td>0.05 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Local health effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- (5873-54-1)</td>
<td>worker Long term</td>
<td>Inhalation</td>
<td>0.05 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Local health effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>worker Short term</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Other information

Observe technical data sheet.
### SAFETY DATA SHEET

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#### Exposure route

<table>
<thead>
<tr>
<th>Route</th>
<th>Derived No Effect Level (DNEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>0.1 mg/m³</td>
</tr>
</tbody>
</table>

#### Derived No Effect Level (DNEL)

**4,4’-Methylenediphenyl diisocyanate (101-68-8)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Exposure route</th>
<th>Derived No Effect Level (DNEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Short term Systemic health effects</td>
<td>Dermal</td>
<td>25 mg/kg bw/d</td>
</tr>
<tr>
<td>Consumer Short term Systemic health effects</td>
<td>Inhalation</td>
<td>0.05 mg/m³</td>
</tr>
<tr>
<td>Consumer Short term Local health effects</td>
<td>Oral</td>
<td>20 mg/kg bw/d</td>
</tr>
<tr>
<td>Consumer Short term Local health effects</td>
<td>Dermal</td>
<td>17200 µg/cm²</td>
</tr>
<tr>
<td>Consumer Long term Systemic health effects</td>
<td>Inhalation</td>
<td>0.05 mg/m³</td>
</tr>
<tr>
<td>Consumer Long term Local health effects</td>
<td>Inhalation</td>
<td>0.025 mg/m³</td>
</tr>
</tbody>
</table>

#### Predicted No Effect Concentration (PNEC)

**4,4’-Methylenediphenyl diisocyanate (101-68-8)**

<table>
<thead>
<tr>
<th>Environmental compartment</th>
<th>Predicted No Effect Concentration (PNEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshwater</td>
<td>1 mg/l</td>
</tr>
<tr>
<td>Marine water</td>
<td>0.1 mg/l</td>
</tr>
<tr>
<td>Soil</td>
<td>1 mg/kg dry weight</td>
</tr>
<tr>
<td>Sewage treatment plant</td>
<td>1 mg/l</td>
</tr>
<tr>
<td>Freshwater - intermittent</td>
<td>10 mg/l</td>
</tr>
</tbody>
</table>

**Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- (5873-54-1)**

<table>
<thead>
<tr>
<th>Environmental compartment</th>
<th>Predicted No Effect Concentration (PNEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshwater</td>
<td>1 mg/l</td>
</tr>
<tr>
<td>Marine water</td>
<td>0.1 mg/l</td>
</tr>
<tr>
<td>Sewage treatment plant</td>
<td>1 mg/l</td>
</tr>
<tr>
<td>Soil</td>
<td>1 mg/kg dry weight</td>
</tr>
<tr>
<td>Freshwater - intermittent</td>
<td>10 mg/l</td>
</tr>
</tbody>
</table>

#### 6.2. Exposure controls

**Engineering controls**

Ensure adequate ventilation, especially in confined areas. Vapours/aerosols must be exhausted directly at the point of origin.

**Personal Protective Equipment**
Eye/face protection: Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

Hand protection: Nitrile rubber. Butyl rubber. Glove thickness > 0.4 mm. The breakthrough time of the gloves depends on the material and the thickness as well as the temperature. The breakthrough time for the mentioned glove material is in general greater than 60 min. Gloves must conform to standard EN 374.

Skin and body protection: Suitable protective clothing.

Recommended filter type: Wear a respirator conforming to EN 140 with Type A/P2 filter or better. Organic gases and vapours filter conforming to EN 14387.

Environmental exposure controls: No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>dark brown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>Earthy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>(~368 \text{ @}1.013 \text{ hPa})</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>(&gt; 250 , ^\circ\text{C})</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable for liquids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>1.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour density</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>(\sim5,400 , \text{mPa s})</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9.2. Other information

| Solid content (%)               | No information available            |                  |        |
| Softening Point                 | No information available            |                  |        |
| Molecular weight                | No information available            |                  |        |
| VOC Content (%)                 | No information available            |                  |        |
| Density                         | 1.15 \, \text{g/cm}^3              |                  |        |
| Bulk density                    | No information available            |                  |        |

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity: No information available.
10.2. Chemical stability

Stability

Stable under normal conditions.

Explosion Data

Sensitivity to mechanical impact

None.

Sensitivity to static discharge

None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions

Exothermic reaction with Amines. Alcohols. Contact with water (moisture) liberates carbon dioxide, which causes pressure increase in closed containers.

10.4. Conditions to avoid

Conditions to avoid

No information available.

10.5. Incompatible materials

Incompatible materials

No information available.

10.6. Hazardous decomposition products

Hazardous decomposition products

None under normal use conditions. Stable under recommended storage conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation

Specific test data for the substance or mixture is not available. May cause sensitisation in susceptible persons. (based on components). May cause irritation of respiratory tract. Harmful by inhalation.

Eye contact

Irritating to eyes. Causes serious eye irritation.

Skin contact

Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May cause sensitisation by skin contact. Causes skin irritation.

Ingestion

Specific test data for the substance or mixture is not available. May cause additional affects as listed under "Inhalation". Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing. Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

Numerical measures of toxicity

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document
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ATEmix (inhalation-dust/mist) 1.50 mg/l

Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isocyanic acid, polymethylene-polyphenylene-ester, polymer with 1,2-ethanediamine, methyloxirane and 1,2-propanediol 67815-87-6</td>
<td>LD50 &gt; 9400 mg/kg (Oryctolagus cuniculus) OECD 402</td>
<td>LD 50 &gt; 10000 mg/kg (Rattus)</td>
<td>=1.5 mg/L (Rattus) 4 h</td>
</tr>
<tr>
<td>Isocyanic acid, polymethylene-polyphenylene-ester 9016-87-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,4'-Methylenediphenyl diisocyanate 101-68-8</td>
<td>LD50 &gt; 9400 mg/kg (Oryctolagus cuniculus) OECD 402</td>
<td>=31600 mg/kg (Rattus) = 9200 mg/kg (Rattus)</td>
<td>=1.5 mg/L (Rattus) 4 h</td>
</tr>
<tr>
<td>Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-5873-54-1</td>
<td>LD50 &gt; 9400 mg/kg (Oryctolagus cuniculus) OECD 402</td>
<td>LD50 &gt;2000 mg/Kg (Rattus)</td>
<td>=1.5 mg/L (4h) Rat</td>
</tr>
<tr>
<td>Benzene, 1,1'-methylenebis[2-isocyanato-2536-05-2</td>
<td>LD50 &gt; 9400 mg/kg (Oryctolagus cuniculus) OECD 402</td>
<td></td>
<td>=1.5 mg/L (4h) Rat</td>
</tr>
</tbody>
</table>

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

<table>
<thead>
<tr>
<th>Method</th>
<th>Species</th>
<th>Exposure route</th>
<th>Effective dose</th>
<th>Exposure time</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Test No. 404: Acute Dermal Irritation/Corrosion</td>
<td>Rabbit</td>
<td></td>
<td></td>
<td></td>
<td>Mild skin irritant</td>
</tr>
</tbody>
</table>

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitisation May cause sensitisation by inhalation. May cause sensitisation by skin contact.

<table>
<thead>
<tr>
<th>Method</th>
<th>Species</th>
<th>Exposure route</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Test No. 406: Skin Sensitisation</td>
<td>Guinea pig</td>
<td></td>
<td>No sensitisation responses were observed</td>
</tr>
<tr>
<td>OECD Test No. 429: Skin Sensitisation: Local Lymph Node Assay</td>
<td>Mouse</td>
<td>sensitising</td>
<td></td>
</tr>
</tbody>
</table>

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Classification based on data available for ingredients. Contains a known or suspected carcinogen.
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component Information</th>
<th>Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)</th>
<th>Method</th>
<th>Species</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Test No. 453: Combined Chronic Toxicity/Carcinogenicity Studies</td>
<td>Rat</td>
<td>Carcinogenic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4,4'-Methylenediphenyl diisocyanate (101-68-8)</th>
<th>Chemical name</th>
<th>European Union</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4'-Methylenediphenyl diisocyanate</td>
<td></td>
<td>Carc. 2</td>
</tr>
<tr>
<td>Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-5873-54-1</td>
<td></td>
<td>Carc. 2</td>
</tr>
<tr>
<td>Benzene, 1,1'-methylenebis[2-isocyanato-2536-05-2</td>
<td></td>
<td>Carc. 2</td>
</tr>
</tbody>
</table>

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

STOT - single exposure
May cause respiratory irritation.

STOT - repeated exposure
May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard
Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to Micro-organisms</th>
<th>Crustacea</th>
<th>M-Factor</th>
<th>M-Factor (long-term)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9</td>
<td>ErC50 (72h) &gt;1640 mg/L Algae (scenedesmus subspicatus) (OECD 201)</td>
<td>CL50 (96h) &gt;1000 mg/L (Danio rerio)</td>
<td>-</td>
<td>EC50 (24H) &gt;1000 mg/L Daphnia magna</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4,4'-Methylenediphenyl diisocyanate 101-68-8</td>
<td>ErC50 (72h) &gt;1640 mg/L Algae (scenedesmus subspicatus) (OECD 201)</td>
<td>&gt;1000 mg/L (Danio rerio)</td>
<td>-</td>
<td>EC50 (24H) &gt;1000 mg/L Daphnia magna</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-5873-54-1</td>
<td>ErC50 (72h) &gt;1640 mg/L Algae (scenedesmus subspicatus) (OECD 201)</td>
<td>LC50 (96 h) &gt; 1000 mg/l (Danio rerio) OECD 203</td>
<td>-</td>
<td>EC50 (24H) &gt;1000 mg/L Daphnia magna</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Benzene, 1,1'-methylenebis[2-isocyanato-2536-05-2</td>
<td>-</td>
<td>LC50 (96 h) &gt; 1000 mg/l (Danio rerio) OECD 203</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
Persistence and degradability

No information available.

### Component Information

#### Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)

<table>
<thead>
<tr>
<th>Method</th>
<th>Exposure time</th>
<th>Value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Test No. 302C: Inherent Biodegradability: Modified MITI Test (II)</td>
<td>28 days</td>
<td>0% biodegradation</td>
<td>Not readily biodegradable</td>
</tr>
</tbody>
</table>

#### 4,4'-Methylenediphenyl diisocyanate (101-68-8)

<table>
<thead>
<tr>
<th>Method</th>
<th>Exposure time</th>
<th>Value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Test No. 302C: Inherent Biodegradability: Modified MITI Test (II)</td>
<td>28 days</td>
<td>0% biodegradation</td>
<td>Not readily biodegradable</td>
</tr>
</tbody>
</table>

### 12.3. Bioaccumulative potential

Bioaccumulation

There is no data for this product.

### Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Partition coefficient</th>
<th>Bioconcentration factor (BCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9</td>
<td>-</td>
<td>&lt; 14</td>
</tr>
<tr>
<td>4,4'-Methylenediphenyl diisocyanate 101-68-8</td>
<td>4.51</td>
<td>200</td>
</tr>
<tr>
<td>Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-5873-54-1</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Benzene, 1,1'-methylenebis[2-isocyanato-2536-05-2]</td>
<td>-</td>
<td>200</td>
</tr>
</tbody>
</table>

### 12.4. Mobility in soil

Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

### 12.6. Other adverse effects

Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods
Waste from residues/unused products
Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

Contaminated packaging
Do not reuse empty containers. Handle contaminated packages in the same way as the product itself.

European Waste Catalogue
- 08 04 09*: waste adhesives and sealants containing organic solvents or other dangerous substances
- 15 01 10*: Packaging containing residues of or contaminated by dangerous substances

Other information
Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

Land transport (ADR/RID)
14.1 UN Number
Not regulated
14.2 Proper Shipping Name
Not regulated
14.3 Transport hazard class(es)
Not regulated
14.4 Packing Group
Not regulated
14.5 Environmental hazards
Not applicable
14.6 Special Provisions
None

IMDG
14.1 UN number
Not regulated
14.2 Proper Shipping Name
Not regulated
14.3 Transport hazard class(es)
Not regulated
14.4 Packing group
Not regulated
14.5 Marine Pollutant
Np
14.6 Special Provisions
None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

Air transport (ICAO-TI / IATA-DGR)
14.1 UN number
Not regulated
14.2 Proper Shipping Name
Not regulated
14.3 Transport hazard class(es)
Not regulated
14.4 Packing group
Not regulated
14.5 Environmental hazards
Not applicable
14.6 Special Provisions
None

Section 15: REGULATORY INFORMATION

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

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work
Check whether measures in accordance with Directive 94/33/EC for the protection of young people at work must be taken.
Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work


SVHC: Substances of Very High Concern for Authorisation:
This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No.
1907/2006 (REACH), Article 59

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Restricted substance per REACH Annex XVII</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4’-Methylenediphenyl diisocyanate</td>
<td>101-68-8</td>
<td>56[a]</td>
</tr>
<tr>
<td>Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-</td>
<td>5873-54-1</td>
<td>56[b]</td>
</tr>
<tr>
<td>Benzene, 1,1'-methylenebis[2-isocyanato-</td>
<td>2536-05-2</td>
<td>56[c]</td>
</tr>
</tbody>
</table>

56
If product supplied to the general public with substance ≥0.1%, then gloves must be provided with the product

Substance subject to authorisation per REACH Annex XIV
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

Persistent Organic Pollutants
Not applicable

National Regulations

France
Occupational Illnesses (R-463-3, France)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>French RG number</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4’-Methylenediphenyl diisocyanate</td>
<td>RG 62</td>
</tr>
<tr>
<td>Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-</td>
<td>RG 62</td>
</tr>
<tr>
<td>Benzene, 1,1'-methylenebis[2-isocyanato-</td>
<td>RG 62</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Germany

Ordinance on Industrial Safety and Health - Germany - BetrSichV
No flammable liquids in accordance with BetrSichV

Water hazard class (WGK)             WGK 1

Netherlands

List of Carcinogenic, mutagenic and reproductive toxin substances in accordance with Inspectorate SZW (Netherlands)
Not Listed

Denmark

MAL-Code 00-3 (1993)

15.2. Chemical safety assessment
Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure

Legend
SVHC: Substances of Very High Concern for Authorisation:

Legend
TWA (time-weighted average)
STEL (Short Term Exposure Limit)

Key literature references and sources for data
No information available

Prepared By
Product Safety & Regulatory Affairs

Revision date
04-Dec-2019

Indication of changes
Revision note
Not applicable.

Training Advice
No information available

Further information
No information available

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

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet