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

1.1. Product identifier
Loctite Double Bubble A

Contains:
- RP Bisphenol F-epichlorohydrin resin, MW<=700
- Trimethylolpropane triglycidyl ether

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Part A of 2-K-Epoxy Adhesive

1.3. Details of the supplier of the safety data sheet
Henkel Ltd
Wood Lane End
HP2 4RQ Hemel Hempstead
Great Britain

Phone: +44 1442 278000
Fax-no.: +44 1442 278071

ua-productssafety.uk@henkel.com

1.4. Emergency telephone number
24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>H315 Causes skin irritation.</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage</td>
<td>Category 1</td>
</tr>
<tr>
<td>H318 Causes serious eye damage.</td>
<td></td>
</tr>
<tr>
<td>Skin sensitizer</td>
<td>Category 1</td>
</tr>
<tr>
<td>H317 May cause an allergic skin reaction.</td>
<td></td>
</tr>
<tr>
<td>Toxic to reproduction</td>
<td>Category 1B</td>
</tr>
<tr>
<td>H360 May damage fertility or the unborn child.</td>
<td></td>
</tr>
<tr>
<td>Chronic hazards to the aquatic environment</td>
<td>Category 2</td>
</tr>
<tr>
<td>H411 Toxic to aquatic life with long lasting effects.</td>
<td></td>
</tr>
</tbody>
</table>

2.2. Label elements

Label elements (CLP):
2.3. Other hazards
None if used properly.
Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:
Part A of two part adhesive

Declaration of the ingredients according to CLP (EC) No 1272/2008:

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>EC Number</th>
<th>content</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP Bisphenol F-epichlorohydrin resin, MW≤700 28064-14-4</td>
<td>50-100%</td>
<td>Skin Irrit. 2 H315 Skin Sens. 1A H317 Eye Irrit. 2 H319 Aquatic Chronic 2 H411</td>
<td></td>
</tr>
<tr>
<td>Trimethylolpropane triglycidyl ether 30499-70-8</td>
<td>20-40%</td>
<td>Skin Irrit. 2 H315 Eye Dam. 1 H318 Skin Sens. 1 H317 Repr. 1B H360 Aquatic Chronic 2 H411</td>
<td></td>
</tr>
</tbody>
</table>

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.
SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:
Rinse with running water and soap.
Obtain medical attention if irritation persists.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed
SKIN: Rash, Urticaria.
SKIN: Redness, inflammation.
After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

4.3. Indication of any immediate medical attention and special treatment needed
See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:
None known

5.2. Special hazards arising from the substance or mixture
In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

5.3. Advice for firefighters
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:
In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes.
Ensure adequate ventilation.
Wear protective equipment.

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up
For small spills wipe up with paper towel and place in container for disposal.
For large spills absorb onto inert absorbent material and place in sealed container for disposal.
Wash spillage site thoroughly with soap and water or detergent solution.

6.4. Reference to other sections
See advice in section 8
SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.
See advice in section 8

Hygiene measures:
Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.
Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container.
Store in a cool, dry place.
Refer to Technical Data Sheet

7.3. Specific end use(s)

Part A of 2-K-Epoxy Adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain
None

Occupational Exposure Limits

Valid for
Ireland
None

Biological Exposure Indices:
None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.

Respiratory protection:
Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area.
Filter type: A (EN 14387)
Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Protective eye equipment should conform to EN166.

Skin protection:
Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:
The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

---

**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>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Solidification temperature</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>&gt; 200 °C (&gt; 392 °F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 100,00 °C (&gt; 212 °F)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Relative vapour density:</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Density</td>
<td>1,2000 g/cm³</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Solubility (qualitative)</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>60,000,00 mPa.s</td>
</tr>
<tr>
<td>Viscosity (kinematic)</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available / Not applicable</td>
</tr>
</tbody>
</table>

9.2. Other information

No data available / Not applicable
SECTION 10: Stability and reactivity

10.1. Reactivity
Reaction with strong bases
Reaction with strong acids.
Avoid contact with amines.
Reaction with strong oxidants.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
Stable under normal conditions of storage and use.

10.5. Incompatible materials
See section reactivity.

10.6. Hazardous decomposition products
carbon oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:
The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances CAS-No.</th>
<th>Value type</th>
<th>Value</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP Bisphenol F-epichlorohydrin resin, MW&lt;=700 28064-14-4</td>
<td>LD50</td>
<td>&gt; 5.000 mg/kg</td>
<td>rat</td>
<td>OECD Guideline 401 (Acute Oral Toxicity)</td>
</tr>
<tr>
<td>Trimethylolpropane triglycidyl ether 30499-70-8</td>
<td>LD50</td>
<td>&gt; 2.000 mg/kg</td>
<td>rat</td>
<td>not specified</td>
</tr>
</tbody>
</table>

Acute dermal toxicity:
The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances CAS-No.</th>
<th>Value type</th>
<th>Value</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP Bisphenol F-epichlorohydrin resin, MW&lt;=700 28064-14-4</td>
<td>LD50</td>
<td>&gt; 2.000 mg/kg</td>
<td>rat</td>
<td>OECD Guideline 402 (Acute Dermal Toxicity)</td>
</tr>
<tr>
<td>Trimethylolpropane triglycidyl ether 30499-70-8</td>
<td>LD50</td>
<td>&gt; 2.000 mg/kg</td>
<td>rat</td>
<td>not specified</td>
</tr>
</tbody>
</table>
Acute inhalative toxicity:

No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Result</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP Bisphenol F-epichlorohydrin resin, MW&lt;700</td>
<td>irritating</td>
<td>4 h</td>
<td>rabbit</td>
<td>OECD Guideline 404 (Acute Dermal Irritation / Corrosion)</td>
</tr>
<tr>
<td>28064-14-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trimethylolpropane triglycidyl ether 30499-70-8</td>
<td>not corrosive</td>
<td></td>
<td>Human, EpiDerm(TM) SIT (EPI-200), Reconstructed Human Epidermis (RHE)</td>
<td>OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)</td>
</tr>
</tbody>
</table>

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Result</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP Bisphenol F-epichlorohydrin resin, MW&lt;700</td>
<td>not irritating</td>
<td></td>
<td>rabbit</td>
<td>OECD Guideline 405 (Acute Eye Irritation / Corrosion)</td>
</tr>
<tr>
<td>28064-14-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Result</th>
<th>Test type</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP Bisphenol F-epichlorohydrin resin, MW&lt;700</td>
<td>sensitising</td>
<td>Mouse local lymph node assay (LLNA)</td>
<td>mouse</td>
<td>OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)</td>
</tr>
<tr>
<td>28064-14-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Result</th>
<th>Type of study / Route of administration</th>
<th>Metabolic activation / Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP Bisphenol F-epichlorohydrin resin, MW&lt;700</td>
<td>positive</td>
<td>bacterial reverse mutation assay (e.g. Ames test)</td>
<td>with and without</td>
<td></td>
<td>OECD Guideline 471 (Bacterial Reverse Mutation Assay)</td>
</tr>
<tr>
<td>28064-14-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carcinogenicity

No data available.
Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Result / Value</th>
<th>Test type</th>
<th>Route of application</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP Bisphenol F-epichlorohydrin resin, MW&lt;=700 28064-14-4</td>
<td>NOAEL P &gt; 750 mg/kg</td>
<td>two-generation study</td>
<td>oral: gavage</td>
<td>rat</td>
<td>OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)</td>
</tr>
<tr>
<td></td>
<td>NOAEL F1 750 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOAEL F2 750 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STOT-single exposure:

No data available.

STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Result / Value</th>
<th>Route of application</th>
<th>Exposure time / Frequency of treatment</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP Bisphenol F-epichlorohydrin resin, MW&lt;=700 28064-14-4</td>
<td>NOAEL 250 mg/kg</td>
<td>oral: gavage</td>
<td>13 w-daily</td>
<td>rat</td>
<td>OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)</td>
</tr>
</tbody>
</table>

Aspiration hazard:

No data available.
SECTION 12: Ecological information

General ecological information:
Do not empty into drains / surface water / ground water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Value type</th>
<th>Value</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol F-epichlorohydrin resin, MW&lt;=700 28064-14-4</td>
<td>LC 50</td>
<td>5.7 mg/l</td>
<td>96 h</td>
<td>Ide, silver or golden orfe (Leuciscus idus)</td>
<td></td>
</tr>
<tr>
<td>Trimethylolpropane triglycidyl ether 30499-70-8</td>
<td>LC 50</td>
<td>75 mg/l</td>
<td>96 h</td>
<td>Cyprinus carpio</td>
<td>OECD Guideline 203 (Fish, Acute Toxicity Test)</td>
</tr>
</tbody>
</table>

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Value type</th>
<th>Value</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol F-epichlorohydrin resin, MW&lt;=700 28064-14-4</td>
<td>EC 50</td>
<td>5.5 mg/l</td>
<td>48 h</td>
<td>Daphnia magna</td>
<td>OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)</td>
</tr>
<tr>
<td>Trimethylolpropane triglycidyl ether 30499-70-8</td>
<td>EC 50</td>
<td>5.7 mg/l</td>
<td>48 h</td>
<td>Daphnia magna</td>
<td>OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)</td>
</tr>
</tbody>
</table>

Chronic toxicity to aquatic invertebrates

No data available.

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Value type</th>
<th>Value</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimethylolpropane triglycidyl ether 30499-70-8</td>
<td>EC 50</td>
<td>9 mg/l</td>
<td>72 h</td>
<td>Pseudokirchneriella subcapitata</td>
<td>OECD Guideline 201 (Alga, Growth Inhibition Test)</td>
</tr>
<tr>
<td>Trimethylolpropane triglycidyl ether 30499-70-8</td>
<td>NOEC</td>
<td>2.5 mg/l</td>
<td>72 h</td>
<td>Pseudokirchneriella subcapitata</td>
<td>OECD Guideline 201 (Alga, Growth Inhibition Test)</td>
</tr>
</tbody>
</table>

Toxicity to microorganisms

No data available.

12.2. Persistence and degradability

The product is not biodegradable.
### 12.3. Bioaccumulative potential

No data available for the product.

No substance data available.

### 12.4. Mobility in soil

Cured adhesives are immobile.

<table>
<thead>
<tr>
<th>Hazardous substances CAS-No.</th>
<th>LogPow</th>
<th>Temperature</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimethylolpropane triglycidyl ether 30499-70-8</td>
<td>&lt; 3</td>
<td>OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)</td>
<td></td>
</tr>
</tbody>
</table>

### 12.5. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or vPvB.

### 12.6. Other adverse effects

No data available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product disposal:
Dispose of in accordance with local and national regulations.
Collection and delivery to recycling enterprise or other registered elimination institution.

Disposal of uncleaned packages:
After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code
08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.
SECTION 14: Transport information

14.1. UN number

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>RID</th>
<th>ADN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>3082</td>
<td>3082</td>
<td>3082</td>
<td>3082</td>
<td>3082</td>
</tr>
</tbody>
</table>

14.2. UN proper shipping name

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>RID</th>
<th>ADN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)</td>
<td>Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)</td>
</tr>
</tbody>
</table>

14.3. Transport hazard class(es)

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>RID</th>
<th>ADN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

14.4. Packing group

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>RID</th>
<th>ADN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>III</td>
<td>III</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
</tbody>
</table>

14.5. Environmental hazards

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>RID</th>
<th>ADN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>not applicable</td>
<td>not applicable</td>
<td>not applicable</td>
<td>Marine pollutant</td>
<td>not applicable</td>
</tr>
</tbody>
</table>

14.6. Special precautions for user

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>RID</th>
<th>ADN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>not applicable</td>
<td>not applicable</td>
<td>not applicable</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
</tbody>
</table>

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), 197 (IATA), 969 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

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

not applicable
**SECTION 15: Regulatory information**

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

VOC content \(< 3.00 \%\) (2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

**SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H360 May damage fertility or the unborn child.
- H411 Toxic to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.
Safety Data Sheet according to Regulation (EC) No 1907/2006

Loctite Double Bubble B

1.1. Product identifier
Loctite Double Bubble B

Contains:
Pentacyrtritol-PO-mercaptoglycerol
2,4,6-Tris(dimethylaminomethyl)phenol
Bis[(dimethylamino)methyl]phenol

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Part B of 2-Component Epoxy Adhesive.

1.3. Details of the supplier of the safety data sheet
Henkel Ltd
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000
Fax-no.: +44 1442 278071

ua-productsafety.uk@henkel.com

1.4. Emergency telephone number
24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):
Skin corrosion Category 1C
H314 Causes severe skin burns and eye damage.
Serious eye damage Category 1
H318 Causes serious eye damage.
Skin sensitizer Category 1
H317 May cause an allergic skin reaction.
Chronic hazards to the aquatic environment Category 3
H412 Harmful to aquatic life with long lasting effects.
Hazard pictogram: 

Signal word: Danger

Hazard statement: 
H314 Causes severe skin burns and eye damage. 
H317 May cause an allergic skin reaction. 
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement:
Prevention 
P273 Avoid release to the environment. 
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement: 
Response 
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 
P310 Immediately call a POISON CENTER/doctor. 
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards
None if used properly.
Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>EC Number</th>
<th>content</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pentaerythritol-PO-mercaptoglycerol 72244-98-5</td>
<td>50-100 %</td>
<td>Aquatic Chronic 3 H412 Skin Sens. 1B H317</td>
<td></td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>202-013-9 01-2119560597-27</td>
<td>5-10 %</td>
<td>Skin Corr. 1C H314 Acute Tox.4 H302</td>
</tr>
<tr>
<td>Bis[(dimethylamino)methyl]phenol 71074-89-0</td>
<td>275-162-0</td>
<td>1-5 %</td>
<td>Skin Corr. 1C H314</td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>204-642-4</td>
<td>0,1-1 %</td>
<td>Acute Tox. 3; Oral H301 Acute Tox. 5; Dermal H311 Acute Tox. 3; Inhalation H331 Aquatic Chronic 3 H412 Aquatic Acute 1 H400</td>
</tr>
</tbody>
</table>

For full text of the H-statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.
Skin contact:
Rinse with running water and soap.
Obtain medical attention if irritation persists.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

SKIN: Rash, Urticaria.

4.3. Indication of any immediate medical attention and special treatment needed
See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:
High pressure waterjet

5.2. Special hazards arising from the substance or mixture
In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

5.3. Advice for firefighters
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:
In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes.
Wear protective equipment.
Ensure adequate ventilation.

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up
For small spills wipe up with paper towel and place in container for disposal.
For large spills absorb onto inert absorbent material and place in sealed container for disposal.
Wash spillage site thoroughly with soap and water or detergent solution.
Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections
See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid skin and eye contact.
See advice in section 8
Hygiene measures:
Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.
Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities
Store only in the original container.
Store in a cool, dry place.
Refer to Technical Data Sheet

7.3. Specific end use(s)
Part B of 2-Component Epoxy Adhesive.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits
Valid for Great Britain
None

Occupational Exposure Limits
Valid for Ireland
None

Predicted No-Effect Concentration (PNEC):

<table>
<thead>
<tr>
<th>Name on list</th>
<th>Environmental Compartment</th>
<th>Exposure period</th>
<th>Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>aqua (freshwater)</td>
<td></td>
<td>mg/l</td>
<td>0.084</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>aqua (marine water)</td>
<td></td>
<td>ppm</td>
<td>0.0084</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>aqua (intermittent releases)</td>
<td></td>
<td>mg/kg</td>
<td>0.84</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>sewage treatment plant (STP)</td>
<td></td>
<td>others</td>
<td>0.2</td>
</tr>
</tbody>
</table>
Derived No-Effect Level (DNEL):

<table>
<thead>
<tr>
<th>Name on list</th>
<th>Application Area</th>
<th>Route of Exposure</th>
<th>Health Effect</th>
<th>Exposure Time</th>
<th>Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>Workers</td>
<td>Inhalation</td>
<td>Long term exposure - systemic effects</td>
<td>0,31 mg/m3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>Workers</td>
<td>dermal</td>
<td>Long term exposure - systemic effects</td>
<td>0,2 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>Workers</td>
<td>inhalation</td>
<td>Long term exposure - systemic effects</td>
<td>15 mg/m3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>Workers</td>
<td>dermal</td>
<td>Long term exposure - systemic effects</td>
<td>4,3 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>General population</td>
<td>inhalation</td>
<td>Long term exposure - systemic effects</td>
<td>3,7 mg/m3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>General population</td>
<td>dermal</td>
<td>Long term exposure - systemic effects</td>
<td>2,1 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>General population</td>
<td>oral</td>
<td>Long term exposure - systemic effects</td>
<td>2,1 mg/kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Biological Exposure Indices:**

None

**8.2. Exposure controls:**

Engineering controls:
Ensure good ventilation/extraction.

Respiratory protection:
Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area.
Filter type: A (EN 14387)

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Protective eye equipment should conform to EN166.

Skin protection:
Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.
Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

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>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>sweet</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Solidification temperature</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>&gt; 200 °C (&gt; 392 °F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 100,00 °C (&gt; 212 °F)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Relative vapour density:</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Density</td>
<td>1.1300 g/cm³</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Solubility (qualitative)</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>12.000.00 mPa.s</td>
</tr>
<tr>
<td>Viscosity (kinematic)</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available / Not applicable</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available / Not applicable</td>
</tr>
</tbody>
</table>

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with strong acids.
Reaction with strong oxidants.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

carbon oxides.
11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Value type</th>
<th>Value</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pentaerythritol-PO-mercaptoglycerol 72244-98-5</td>
<td>LD50</td>
<td>2,600 mg/kg</td>
<td>rat</td>
<td>OECD Guideline 401 (Acute Oral Toxicity)</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>LD50</td>
<td>1,200 mg/kg</td>
<td>rat</td>
<td>not specified</td>
</tr>
</tbody>
</table>

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Value type</th>
<th>Value</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pentaerythritol-PO-mercaptoglycerol 72244-98-5</td>
<td>LD50</td>
<td>&gt; 10.200 mg/kg</td>
<td>rabbit</td>
<td>OECD Guideline 402 (Acute Dermal Toxicity)</td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>LD50</td>
<td>820 mg/kg</td>
<td>rabbit</td>
<td>OECD Guideline 402 (Acute Dermal Toxicity)</td>
</tr>
</tbody>
</table>

Acute inhalative toxicity:

No substance data available.
No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Result</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>corrosive</td>
<td>4 h</td>
<td>rabbit</td>
<td>OECD Guideline 404 (Acute Dermal Irritation / Corrosion)</td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>not irritating</td>
<td></td>
<td>Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE)</td>
<td>OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)</td>
</tr>
</tbody>
</table>

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Result</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>not irritating</td>
<td></td>
<td>rabbit</td>
<td>OECD Guideline 405 (Acute Eye Irritation / Corrosion)</td>
</tr>
</tbody>
</table>
Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances CAS-No.</th>
<th>Result</th>
<th>Test type</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pentaerythritol-PO-mercapto glycerol 72244-98-5</td>
<td>sensitising</td>
<td>Mouse local lymphnode assay (LLNA)</td>
<td>mouse</td>
<td>OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethy l)phenol 90-72-2</td>
<td>not sensitising</td>
<td>Buehler test</td>
<td>guinea pig</td>
<td>OECD Guideline 406 (Skin Sensitisation)</td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>not sensitising</td>
<td>Guinea pig maximisation test</td>
<td>guinea pig</td>
<td>OECD Guideline 406 (Skin Sensitisation)</td>
</tr>
</tbody>
</table>

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances CAS-No.</th>
<th>Result</th>
<th>Type of study / Route of administration</th>
<th>Metabolic activation / Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethy l)phenol 90-72-2</td>
<td>negative</td>
<td>bacterial reverse mutation assay (e.g Ames test)</td>
<td>with and without</td>
<td>OECD Guideline 471 (Bacterial Reverse Mutation Assay)</td>
<td></td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethy l)phenol 90-72-2</td>
<td>negative</td>
<td>in vitro mammalian chromosome aberration test</td>
<td>with and without</td>
<td>OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)</td>
<td></td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethy l)phenol 90-72-2</td>
<td>negative</td>
<td>mammalian cell gene mutation assay</td>
<td>with and without</td>
<td>OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)</td>
<td></td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>negative</td>
<td>bacterial reverse mutation assay (e.g Ames test)</td>
<td>with and without</td>
<td>OECD Guideline 471 (Bacterial Reverse Mutation Assay)</td>
<td></td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>negative</td>
<td>mammalian cell gene mutation assay</td>
<td>with and without</td>
<td>OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)</td>
<td></td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>negative</td>
<td>in vitro mammalian cell micronucleus test</td>
<td>with and without</td>
<td>OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)</td>
<td></td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>negative</td>
<td>intraperitoneal</td>
<td>mouse</td>
<td>not specified</td>
<td></td>
</tr>
</tbody>
</table>

Carcinogenicity

No data available.

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances CAS-No.</th>
<th>Result / Value</th>
<th>Test type</th>
<th>Route of application</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>NOAEL P 30 mg/kg</td>
<td>oral: gavage</td>
<td>rat</td>
<td>OECD Preliminary Reproduction Toxicity Screening Test (Precursor Protocol of GL 421)</td>
<td></td>
</tr>
</tbody>
</table>

STOT-single exposure:

No data available.

STOT-repeated exposure:

No data available.
Aspiration hazard:
No data available.

SECTION 12: Ecological information

General ecological information:
Do not empty into drains / surface water / ground water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Value type</th>
<th>Value</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>LC50</td>
<td>153 mg/l</td>
<td>96 h</td>
<td>Brachydanio rerio (new name: Danio rerio)</td>
<td>ISO 7346-1 (Determination of the Acute Lethal Toxicity of Substances to a Freshwater Fish Brachydanio rerio Hamilton-Buchanan (Teleostei, Cyprinidae))</td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>LC50</td>
<td>0,117 mg/l</td>
<td>96 h</td>
<td>Brachydanio rerio (new name: Danio rerio)</td>
<td>OECD Guideline 203 (Fish, Acute Toxicity Test)</td>
</tr>
</tbody>
</table>

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Value type</th>
<th>Value</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>EC50</td>
<td>2 mg/l</td>
<td>48 h</td>
<td>Daphnia magna</td>
<td>OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)</td>
</tr>
</tbody>
</table>

Chronic toxicity to aquatic invertebrates
No data available.

Toxicity (Algae):
The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances CAS-No.</th>
<th>Value type</th>
<th>Value</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>EC50</td>
<td>84 mg/l</td>
<td>72 h</td>
<td>Scenedesmus subspicatus (new name: Desmodesmus subspicatus)</td>
<td>OECD Guideline 201 (Alga, Growth Inhibition Test)</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>NOEC</td>
<td>6.25 mg/l</td>
<td>72 h</td>
<td>Desmodesmus subspicatus</td>
<td>OECD Guideline 201 (Alga, Growth Inhibition Test)</td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>NOEC</td>
<td>0.158 mg/l</td>
<td>72 h</td>
<td>Desmodesmus subspicatus</td>
<td>OECD Guideline 201 (Alga, Growth Inhibition Test)</td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>EC50</td>
<td>&gt; 4.6 mg/l</td>
<td>72 h</td>
<td>Desmodesmus subspicatus</td>
<td>OECD Guideline 201 (Alga, Growth Inhibition Test)</td>
</tr>
</tbody>
</table>

**Toxicity to microorganisms**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

<table>
<thead>
<tr>
<th>Hazardous substances CAS-No.</th>
<th>Result</th>
<th>Test type</th>
<th>Degradability</th>
<th>Exposure time</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>not readily biodegradable.</td>
<td>aerobic</td>
<td>4 %</td>
<td>28 d</td>
<td>OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)</td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>readily biodegradable</td>
<td>aerobic</td>
<td>70 %</td>
<td>28 d</td>
<td>OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)</td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**

The product is not biodegradable.

<table>
<thead>
<tr>
<th>Hazardous substances CAS-No.</th>
<th>LogPow</th>
<th>Temperature</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>-0.66</td>
<td>21.5 °C</td>
<td>EPA OPPTS 830.7550 (Partition Coefficient, n-octanol / H2O, Shake Flask Method)</td>
</tr>
<tr>
<td>Allyl hexanoate 123-68-2</td>
<td>3.191</td>
<td>20 °C</td>
<td>OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)</td>
</tr>
</tbody>
</table>

**12.3. Bioaccumulative potential**

No data available.

No substance data available.

**12.4. Mobility in soil**

Cured adhesives are immobile.

<table>
<thead>
<tr>
<th>Hazardous substances CAS-No.</th>
<th>PBT / vPvB</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2</td>
<td>Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.</td>
</tr>
</tbody>
</table>

**12.5. Results of PBT and vPvB assessment**

**12.6. Other adverse effects**

No data available.
SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
Collection and delivery to recycling enterprise or other registered elimination institution.
Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:
After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code
08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances
The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.
SECTION 14: Transport information

14.1. UN number

ADR 2735
RID 2735
ADN 2735
IMDG 2735
IATA 2735

14.2. UN proper shipping name

ADR AMINES, LIQUID, CORROSIVE, N.O.S. (2,4,6-Tris(dimethyl amino methyl)phenole, Bis[(dimethylamino)methyl]phenol)
RID AMINES, LIQUID, CORROSIVE, N.O.S. (2,4,6-Tris(dimethyl amino methyl)phenole, Bis[(dimethylamino)methyl]phenol)
ADN AMINES, LIQUID, CORROSIVE, N.O.S. (2,4,6-Tris(dimethyl amino methyl)phenole, Bis[(dimethylamino)methyl]phenol)
IMDG AMINES, LIQUID, CORROSIVE, N.O.S. (2,4,6-Tris(dimethyl amino methyl)phenole, Bis[(dimethylamino)methyl]phenol)
IATA Amines, liquid, corrosive, n.o.s. (2,4,6-Tris(dimethyl amino methyl)phenole, Bis[(dimethylamino)methyl]phenol)

14.3. Transport hazard class(es)

ADR 8
RID 8
ADN 8
IMDG 8
IATA 8

14.4. Packing group

ADR III
RID III
ADN III
IMDG III
IATA III

14.5. Environmental hazards

ADR not applicable
RID not applicable
ADN not applicable
IMDG not applicable
IATA not applicable

14.6. Special precautions for user

ADR not applicable
Tunnelcode: (E)
RID not applicable
ADN not applicable
IMDG not applicable
IATA not applicable

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

not applicable

SECTION 15: Regulatory information

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

VOC content < 3,00 % Combined A/B
15.2. Chemical safety assessment
A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H331 Toxic if inhaled.
- H400 Very toxic to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

Further information:
This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.