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

1.1. Product identifier

EP150

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

Use of the substance/mixture

Adhesives, sealants

1.3. Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>Company name:</th>
<th>Hottinger Baldwin Messtechnik GmbH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street:</td>
<td>Im Tiefen See 45</td>
</tr>
<tr>
<td>Place:</td>
<td>D-64293 Darmstadt</td>
</tr>
<tr>
<td>Telephone:</td>
<td>+49 (0)6151 803-0</td>
</tr>
<tr>
<td>Internet:</td>
<td><a href="http://www.hbm.com">www.hbm.com</a></td>
</tr>
<tr>
<td>Responsible Department</td>
<td><a href="mailto:support@hbm.com">support@hbm.com</a></td>
</tr>
</tbody>
</table>

1.4. Emergency telephone number:

+49(0)6131 19240

**SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

**Regulation (EC) No. 1272/2008**

Hazard categories:

- Flammable liquid: Flam. Liq. 2
- Skin corrosion/irritation: Skin Irrit. 2
- Serious eye damage/eye irritation: Eye Irrit. 2
- Respiratory or skin sensitisation: Skin Sens. 1
- Specific target organ toxicity - single exposure: STOT SE 3
- Hazardous to the aquatic environment: Aquatic Chronic 3
- Hazard Statements:
  - Highly flammable liquid and vapour.
  - Causes skin irritation.
  - Causes serious eye irritation.
  - May cause an allergic skin reaction.
  - May cause drowsiness or dizziness.
  - Harmful to aquatic life with long lasting effects.

2.2. Label elements

**Regulation (EC) No. 1272/2008**

**Hazard components for labelling**

- butanone; ethyl methyl ketone
- epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)

**Signal word:** Danger

**Pictograms:**

- ![Flammable Liquid](image)
- ![Eye Irritation](image)

**Hazard statements**

- H225 Highly flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
Safety Data Sheet

according to Regulation (EC) No 1907/2006

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H366 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P362+P364 Take off contaminated clothing and wash it before reuse.
P302+P352 IF ON SKIN: Wash with plenty of water
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P403+P235 Store in a well-ventilated place. Keep cool.

Special labelling of certain mixtures

Restricted to professional users.

2.3. Other hazards

No information available.

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>78-93-3</td>
<td>butanone, ethyl methyl ketone</td>
<td>35 - &lt; 40 %</td>
</tr>
<tr>
<td>201-159-0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25068-38-6</td>
<td>epoxy resin (number average molecular weight &lt;= 700), reaction product: bisphenol-A- (epichlorhydrin)</td>
<td>20 - &lt; 25 %</td>
</tr>
<tr>
<td>500-033-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>123-42-2</td>
<td>4-hydroxy-4-methylpentan-2-one, diacetone alcohol</td>
<td>15 - &lt; 20 %</td>
</tr>
<tr>
<td>204-626-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>10 - &lt; 15 %</td>
</tr>
<tr>
<td>215-535-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80-08-0</td>
<td>4,4’-diamino diphenyl sulfone, dapsone</td>
<td>5 - &lt; 10 %</td>
</tr>
<tr>
<td>201-248-4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Further Information

No information available.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from the danger area and lay down. If unconscious place in recovery position and seek medical advice. First aider: Pay attention to self-protection!
After inhalation
Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin
After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion
Rinse mouth immediately and drink plenty of water.

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

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

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Carbon dioxide (CO2), Foam, Extinguishing powder.

Unsuitable extinguishing media
Water.

5.2. Special hazards arising from the substance or mixture
Highly flammable. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information
Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. 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
Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions
Do not allow uncontrolled discharge of product into the environment. Danger of explosion

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

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
If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.
Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

Further information on handling
Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage
Do not store together with: Oxidising agent, strong, Combustible substances of acute toxicity, category 1 and 2 / very toxic substances Non-combustible substances of acute toxicity, category 1 and 2 / very toxic substances

Further information on storage conditions
Keep container tightly closed in a cool, well-ventilated place.

7.3. Specific end use(s)
Adhesives, sealants Adhesives, sealants

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>flb/cm³</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>123-42-2</td>
<td>Diacetone alcohol</td>
<td>50</td>
<td>240</td>
<td></td>
<td>TWA (8 h)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>75</td>
<td>360</td>
<td></td>
<td>STEL (15 min)</td>
<td></td>
</tr>
<tr>
<td>78-93-3</td>
<td>Methyl ethyl ketone (MEK) (Butan-2-one)</td>
<td>200</td>
<td>600</td>
<td></td>
<td>TWA (8 h)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>300</td>
<td>900</td>
<td></td>
<td>STEL (15 min)</td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Xylene, mixed isomers</td>
<td>50</td>
<td>221</td>
<td></td>
<td>TWA (8 h)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>442</td>
<td></td>
<td>STEL (15 min)</td>
<td></td>
</tr>
</tbody>
</table>

Biological limit values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Parameter</th>
<th>Value</th>
<th>Test material</th>
<th>Sampling time</th>
</tr>
</thead>
<tbody>
<tr>
<td>78-93-3</td>
<td>Butan-2-one</td>
<td>Butan-2-one</td>
<td>70 µmol/L</td>
<td>Urine</td>
<td>Post shift</td>
</tr>
</tbody>
</table>

Additional advice on limit values
No information available.

8.2. Exposure controls

Appropriate engineering controls
If handled uncovered, arrangements with local exhaust ventilation should be used if possible.
In use, may form flammable/explosive vapour-air mixture.
Use explosion-proof electrical equipment.
Protective and hygiene measures

When using do not eat or drink. Do not breathe gas/fumes/vapour/spray.
After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Wear suitable protective clothing, gloves and eye/face protection.
Draw up and observe skin protection programme.

Eye/face protection

Wear eye/face protection.

Hand protection

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.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
EN 374

Skin protection

Used working clothes should not be worn outside the work area.
Separate storage of work clothes.
Wear anti-static footwear and clothing

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Filtering device (full mask or mouthpiece) with filter: A

Environmental exposure controls

Do not allow to enter into surface water or drains.
The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>transparent</td>
</tr>
<tr>
<td>Odour</td>
<td>Adhesives, sealants</td>
</tr>
<tr>
<td>pH-Value</td>
<td>not determined</td>
</tr>
<tr>
<td>Melting point</td>
<td>not determined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>80 °C</td>
</tr>
<tr>
<td>Sublimation point</td>
<td>not determined</td>
</tr>
<tr>
<td>Softening point</td>
<td>not determined</td>
</tr>
<tr>
<td>Pour point</td>
<td>not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>-4 °C</td>
</tr>
<tr>
<td>Sustaining combustion</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Flammability**

- Solid: not applicable
- Gas: not applicable

**Explosive properties**

- No information available.

**Lower explosion limits**: 0.7 vol. %
### Upper explosion limits:
11.5 vol. %

### Ignition temperature:
465 °C

### Auto-ignition temperature
- **Solid**: not applicable
- **Gas**: not applicable

### Decomposition temperature:
not determined

### Oxidizing properties
- Not oxidising.

### Vapour pressure:
- (at 20 °C): 8 hPa
- (at 50 °C): 9 hPa

### Density (at 20 °C):
0.934 g/cm³

### Water solubility:
The study does not need to be conducted because the substance is known to be insoluble in water.

### Other information
- **Solid content**: not determined

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity
- Highly flammable.

#### 10.2. Chemical stability
- The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions
- No known hazardous reactions.

#### 10.4. Conditions to avoid
- Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

#### 10.5. Incompatible materials
- No information available.

#### 10.6. Hazardous decomposition products
- No known hazardous decomposition products.

### Further information
- No information available.
SECTION 11: Toxicological information

11.1. Information on toxicological effects

**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>123-42-2</td>
<td>4-hydroxy-4-methylpentan-2-one, diacetone alcohol</td>
<td>oral</td>
<td>LD50</td>
<td>2520</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>13630</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>dermal</td>
<td>ATE</td>
<td>1100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation vapour</td>
<td>ATE</td>
<td>11 mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation aerosol</td>
<td>ATE</td>
<td>1.5 mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80-08-0</td>
<td>4,4'-diamino diphenyl sulfone, dapsone</td>
<td>oral</td>
<td>ATE</td>
<td>500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Irritation and corrosivity**

Causes skin irritation.

Causes serious eye irritation.

**Sensitising effects**

May cause an allergic skin reaction. (epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin))

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

**STOT-single exposure**

May cause drowsiness or dizziness. (butanone; ethyl methyl ketone)

**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 hazardous according to regulation (EC) No 1272/2008 [CLP].

**Practical experience**

Observations relevant to classification

No information available.

**Other observations**

No information available.

Further information

No information available.

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>123-42-2</td>
<td>4-hydroxy-4-methylpentan-2-one, diacetone alcohol</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>420 mg/l</td>
<td>96 h</td>
<td>Lepomis macrochirus</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

### 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>123-42-2</td>
<td>4-hydroxy-4-methylpentan-2-one, diacetone alcohol</td>
<td>1.03</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

Land transport (ADR/RID)

- **14.1. UN number:** UN 1133
- **14.2. UN proper shipping name:** Adhesives
- **14.3. Transport hazard class(es):** 3
- **14.4. Packing group:** III
  - **Hazard label:** 3
  - **Classification code:** F1
  - **Limited quantity:** 5 L
  - **Excepted quantity:** E1
  - **Transport category:** 3
  - **Tunnel restriction code:** E

Inland waterways transport (ADN)
14.1. UN number: UN 1133
14.2. UN proper shipping name: Adhesives
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3

Classification code: F1
Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)
14.1. UN number: UN 1133
14.2. UN proper shipping name: Adhesives
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3

Special Provisions: 223, 955
Limited quantity: 5 L
Excepted quantity: E1
EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)
14.1. UN number: UN 1133
14.2. UN proper shipping name: Adhesives
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3

Special Provisions: A3
Limited quantity Passenger: 10 L
Passenger LQ: Y344
Excepted quantity: E1
IATA-packing instructions - Passenger: 355
IATA-max. quantity - Passenger: 60 L
IATA-packing instructions - Cargo: 366
IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user
No information available.

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):
- Entry 3: 4-hydroxy-4-methylpentan-2-one, diacetone alcohol

2010/75/EU (VOC): 32,5 % (303,55 g/l)
2004/42/EC (VOC): 69,5 % (649,13 g/l)

Information according to 2012/18/EU (SEVESO III):

P5c FLAMMABLE LIQUIDS

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 2 - clearly water contaminating
Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information**

**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)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
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
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 2; H225</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Skin Irrit. 2; H315</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Eye Irrit. 2; H319</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Sens. 1; H317</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT SE 3; H336</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 3: H412</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

**Relevant H and EUH statements (number and full text)**

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
Safety Data Sheet

according to Regulation (EC) No 1907/2006

EP150

Revision date: 10.07.2019

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>EUH066</td>
<td>Repeated exposure may cause skin dryness or cracking.</td>
</tr>
</tbody>
</table>

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary responsible for adhering to existing laws and regulations.

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