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

Company name: Hottinger Baldwin Messtechnik GmbH
Street: Im Tiefen See 45
Place: D-64293 Darmstadt
Telephone: +49 (0)6151 803-0
Internet: www.hbm.com
Responsible Department: support@hbm.com

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:

Hazard statements

- H225 Highly flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
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></td>
<td>GHS Classification</td>
<td></td>
</tr>
<tr>
<td>201-159-0</td>
<td>606-002-00-3</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></td>
<td>500-033-5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>603-074-00-8</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></td>
<td>204-626-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>603-016-00-1</td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>10 - &lt; 15 %</td>
</tr>
<tr>
<td></td>
<td>215-535-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>601-022-00-9</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></td>
<td>201-249-4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>612-084-00-1</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

Additional information on end uses
   Adhesives, sealants

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>123-42-2</td>
<td>4-Hydroxy-4-methyl-pentan-2-one</td>
<td>50</td>
<td>241</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75</td>
<td>362</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td>78-93-3</td>
<td>Butan-2-one (methyl ethyl ketone)</td>
<td>200</td>
<td>600</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>300</td>
<td>899</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Xylene: mixed isomers</td>
<td>50</td>
<td>220</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>441</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

Biological Monitoring Guidance Values (EH40)

<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>
<tr>
<td>1330-20-7</td>
<td>Xylene, o-, m-, p- or mixed isomers</td>
<td>methyl hippuric acid</td>
<td>650 mmol/mol</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.  
The required protective gloves have to be specified by the glove material and the penetration time of the glove material depending on strength and duration of dermal exposition.  
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></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>
</tbody>
</table>

**Changes in the physical state**

<table>
<thead>
<tr>
<th>Property</th>
<th></th>
</tr>
</thead>
<tbody>
<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**

<table>
<thead>
<tr>
<th>Property</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>not applicable</td>
</tr>
<tr>
<td>Gas</td>
<td>not applicable</td>
</tr>
</tbody>
</table>
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
Bulk density: not determined

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

Solubility in other solvents
not determined

Partition coefficient: not determined
Viscosity / dynamic: not determined
Viscosity / kinematic: not determined
Flow time: not determined
Vapour density: not determined
Evaporation rate: not determined
Solvent separation test: not determined
Solvent content: 69,50 %

9.2. 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>Rat</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mg/kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>Rabbit</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mg/kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td>xylene</td>
<td>dermal</td>
<td>ATE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mg/kg</td>
<td></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></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mg/kg</td>
<td></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.
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
**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

**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

**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

- Limited quantity: 5 L
- Excepted quantity: E1
- EmS: F-E, S-D
- Passenger LQ: Y344
- 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
- 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.
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.)