Safety data sheet CPB001 - component B

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1. Product identifier.
Product name. CPB001 - component B

1.2. Relevant identified uses of the substance or mixture and uses advised against.
Intended use. polyurethane bicomponent glue

1.3. Details of the supplier of the safety data sheet.
Company: CEL Components S.r.l.
Via Ca' dell'Orbo Sud 4 - 40055 Castenaso (Bologna) Italy
Tel. +39 051 782505  Fax +39 051 782477
www.cel.eu - info@cel.eu
P.IVA 04102600378 - CCIAA BO 0339628
e-mail address of the competent person, responsible for the Safety Data Sheet.: info@cel.eu

1.4. Emergency telephone number.
For urgent inquiries refer to. 0039 02 66101029 centro antiveneni azienda ospedaliera Niguarda Cà Granda Milano

SECTION 2. HAZARDS IDENTIFICATION.

2.1. Classification of the substance or mixture.
The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:
Carcinogenicity, category 2 H351 Suspected of causing cancer.
Acute toxicity, category 4 H332 Harmful if inhaled.
Specific target organ toxicity - repeated exposure, category 1 H372 Causes damage to organs through prolonged or repeated exposure.
Eye irritation, category 2 H319 Causes serious eye irritation.
Skin irritation, category 2 H315 Causes skin irritation.
Specific target organ toxicity - single exposure, category 3 H335 May cause respiratory irritation.
Respiratory sensitization, category 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitzation, category 1 H317 May cause an allergic skin reaction.

2.2. Label elements.
Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Signal words: Danger

Hazard statements:
H351 Suspected of causing cancer.
H332 Harmful if inhaled.
H372 Causes damage to organs through prolonged or repeated exposure.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H335 May cause respiratory irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
EUH204 Contains isocyanates. May produce an allergic reaction.
Precautionary statements:

P201 Obtain special instructions before use.
P280 Wear protective gloves / clothing and eye / face protection.
P304+P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice / attention.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Contains: diphenylmethanodiisocyanate, isomers and homologues

2.3. Other hazards.
On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS.

3.1. Substances.
Information not relevant.

3.2. Mixtures.
Contains:

<table>
<thead>
<tr>
<th>Identification.</th>
<th>Conc. %</th>
<th>Classification 1272/2008 (CLP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>diphenylmethanodiisocyanate, isomeri e omologhi</td>
<td>70 - 90</td>
<td>Carc. 2 H351, Acute Tox. 4 H332, STOT RE 1 H372, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317</td>
</tr>
</tbody>
</table>

CE -
INDEX. -

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. FIRST AID MEASURES.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. FIREFIGHTING MEASURES.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.
5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. ACCIDENTAL RELEASE MEASURES.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. HANDLING AND STORAGE.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities.
Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1. Control parameters.
Regulatory References:
ITA Italia Decreto Legislativo 9 Aprile 2008, n.81
difenilmetanodisocianato, isomeri e omologhi

<table>
<thead>
<tr>
<th>Type</th>
<th>Country</th>
<th>TWA/8h mg/m³</th>
<th>ppm</th>
<th>STEL/15min mg/m³</th>
<th>ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLV ITA</td>
<td></td>
<td>0,005</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
8.2. Exposure controls.
As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves’ resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves’ wear time depends on the duration and type of use.

SKIN PROTECTION

EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker’s exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

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>Colour</td>
<td>dark brown</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>Odour threshold.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point / freezing point.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Initial boiling point.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling range.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point.</td>
<td>&gt; 200 °C.</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability of solids and gases</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower inflammability limit.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper inflammability limit.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower explosive limit.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper explosive limit.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure.</td>
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</tr>
<tr>
<td>Vapour density</td>
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</tr>
<tr>
<td>Relative density</td>
<td>1,220 Kg/l</td>
</tr>
<tr>
<td>Solubility</td>
<td>insoluble in water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature.</td>
<td>230</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
SECTION 10. STABILITY AND REACTIVITY.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However, the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. TOXICOLOGICAL INFORMATION.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product must be handled carefully because of its possible carcinogenic effects. Anyway, currently available data do not allow us to comprehensively assess this product.

Acute effects: inhalation of this product is harmful. Exposure symptoms may include: stinging and irritated eyes, mouth, nose, throat; cough, respiratory disorders, dizziness, headache, nausea and sickness. In the most serious cases, inhalation of this product may cause larynx and bronchial tube edema and irritation, chemical pneumonia and pulmonary edema.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Inhalation of this product causes sensitization, which may then give rise to a series of inflammatory episodes, most of all characterized by obstruction and affecting the respiratory system. Sometimes, sensitization phenomena arise together with evident rhinitis and asthma. Damages to the respiratory system depend on the inhaled quantity, on the product concentration in the working environment and on the exposure time.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies from intense seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

This product contains isocyanates. Producer’s specifications are as follows: Ready-to-use products containing isocyanates may irritate mucosas, particularly those of the respiratory system, and may give rise to hypersensitivity reactions. Vapour or aerosol inhalation may lead to sensitization. Please take all the measures used for all solvent-containing products while manipulating isocyanate-containing products. Avoid vapour and aerosol inhalation. People with allergic or asthmatic precedents or subject to respiratory disorders should not handle products containing isocyanates.

difenilmetanodiisocianato, isomeri e omologhi
LD50 (Orale).> 2000 mg/kg rat
LC50 (Inalazione).490 mg/m² rat

SECTION 12. ECOLOGICAL INFORMATION.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

LIABILITY DISCLAIMER: The above data are to the best of our knowledge correct and are intended to give information about our products and their potential applications. No warranty is given or implied in respect of certain properties of the products or their suitability for a particular application. We reserve the right for technical changes without further notice. We guarantee impeccable product quality under our terms of sale.
12.1. Toxicity.

Difenilmetanodiisocianato,
isomeri e omologhi

EC50 - for Crustacea. > 1000 mg/l/48h daphnia magna

12.2. Persistence and degradability.

Information not available.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. DISPOSAL CONSIDERATIONS.


Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. TRANSPORT INFORMATION.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

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

Information not relevant.

SECTION 15. REGULATORY INFORMATION.

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

Seveso category. None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product Point 3
Substances in Candidate List (Art. 59 REACH).
None.

Substances subject to authorisation (Annex XIV REACH).
None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Healthcare controls.
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers’ health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.
No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. OTHER INFORMATION.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

- **Carc. 2** Carcinogenicity, category 2
- **Acute Tox. 4** Acute toxicity, category 4
- **STOT RE 1** Specific target organ toxicity - repeated exposure, category 1
- **Eye Irrit. 2** Eye irritation, category 2
- **Skin Irrit. 2** Skin irritation, category 2
- **STOT SE 3** Specific target organ toxicity - single exposure, category 3
- **Resp. Sens. 1** Respiratory sensitization, category 1
- **Skin Sens. 1** Skin sensitization, category 1
- **H351** Suspected of causing cancer.
- **H332** Harmful if inhaled.
- **H372** Causes damage to organs through prolonged or repeated exposure.
- **H319** Causes serious eye irritation.
- **H315** Causes skin irritation.
- **H335** May cause respiratory irritation.
- **H334** May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **H317** May cause an allergic skin reaction.
- **EUH204** Contains isocyanates. May produce an allergic reaction.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TWA STEL: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
   - The Merck Index. - 10th Edition
   - Handling Chemical Safety
   - INRS - Fiche Toxicologique (toxicological sheet)
   - Patty - Industrial Hygiene and Toxicology
   - ECHA website

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 04 / 05 / 06 / 08 / 09 / 11 / 12 / 14 / 15 / 16.

LIABILITY DISCLAIMER: The above data are to the best of our knowledge correct and are intended to give information about our products and their potential applications. No warranty is given or implied in respect of certain properties of the products or their suitability for a particular application. We reserve the right for technical changes without further notice. We guarantee impeccable product quality under our terms of sale.