






## 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** **CM 510-1 (A&B)**
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** Building and construction work
- **Application of the substance / the preparation** Construction chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Hilti (Malaysia) Sdn. Bhd.  
9 & 11 Jalan PJS 11/20  
Bandar Sunway  
MAL-46150 Petaling Jaya  
Selangor D.E.  
Malaysia  
Phone: 1800 88 0985 (Toll free)  
Fax: 03-5632 1527  
Email: my.service@hilti.com
- **Informing department:** see section 16
- **Emergency telephone number:**  
Schweizerisches Toxikologisches Informationszentrum - 24 h Service  
Tel.: 0041 / 44 251 51 51 (international)
- Hilti (Malaysia) Sdn. Bhd.  
Phone: 1800 88 0985 (Toll free)  
Fax: 03-5632 1527

## 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
  -  C; Corrosive  
R34: Causes burns.
  -  Xn; Harmful  
R20/21/22-62-68: Harmful by inhalation, in contact with skin and if swallowed. Possible risk of impaired fertility. Possible risk of irreversible effects.
  -  Xi; Irritant  
R36/38: Irritating to eyes and skin.
  -  Xi; Sensitising  
R43: May cause sensitisation by skin contact.  
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Information concerning particular hazards for human and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**  
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.
- **Label elements**
- **Labelling according to EU guidelines:**  
The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)
- **Code letter and hazard designation of product:**
  -  C Corrosive
- **Hazard-determining components of labelling:**  
3-aminomethyl-3,5,5-trimethylcyclohexylamine  
trimethylhexane-1,6-diamine  
bisphenol A  
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin  
(number average molecular weight = 700)  
2,3-epoxypropyl o-tolyl ether  
Benzyl alcohol

(Contd. on page 2)

Trade name: CM 510-1 (A&B)

(Contd. of page 1)

**· Risk phrases:**

- 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- 34 Causes burns.
- 36/38 Irritating to eyes and skin.
- 43 May cause sensitisation by skin contact.
- 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 62 Possible risk of impaired fertility.
- 68 Possible risk of irreversible effects.

**· Safety phrases:**

- 25 Avoid contact with eyes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**· Special labelling of certain preparations:**

Contains epoxy constituents. See information supplied by the manufacturer.  
Restricted to professional users.

**· Other hazards**

**· Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

**· Chemical characterization: Mixtures**

**· Description:**

Mixture consisting of the following components.

**· Dangerous components:**

|                                      |  |         |
|--------------------------------------|--|---------|
| CAS: 2855-13-2<br>EINECS: 220-666-8  | 3-aminomethyl-3,5,5-trimethylcyclohexylamine<br>☒ C R34; ☒ Xn R21/22; ☒ Xi R43<br>R52/53<br>☞ Skin Corr. 1B, H314; ☞ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412                               | 25-50%  |
| CAS: 100-51-6<br>EINECS: 202-859-9   | Benzyl alcohol<br>☒ Xn R20/22<br>☞ Acute Tox. 4, H302; Acute Tox. 4, H332  | 25-50%  |
| CAS: 25620-58-0<br>EINECS: 247-134-8 | trimethylhexane-1,6-diamine<br>☒ C R34; ☒ Xn R22; ☒ Xi R43<br>☞ Skin Corr. 1B, H314; ☞ Acute Tox. 4, H302; Skin Sens. 1, H317  | 10-25%  |
| CAS: 80-05-7<br>EINECS: 201-245-8    | bisphenol A<br>☒ Xn R62; ☒ Xi R37-41; ☒ Xi R43<br>R52<br>Repr. Cat. 3<br>☞ Repr. 2, H361f; ☞ Eye Dam. 1, H318; ☞ Skin Sens. 1, H317; STOT SE 3, H335   | 2,5-10% |
| CAS: 25068-38-6<br>NLP: 500-033-5    | reaction product: bisphenol-A-(epichlorhydrin) epoxy resin<br>(number average molecular weight = 700)<br>☒ Xi R36/38; ☒ Xi R43; ☒ N R51/53<br>☞ Aquatic Chronic 2, H411; ☞ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 | 2,5-10% |
| CAS: 2210-79-9<br>EINECS: 218-645-3  | 2,3-epoxypropyl o-tolyl ether<br>☒ Xn R68; ☒ Xi R38; ☒ Xi R43; ☒ N R51/53<br>Muta. Cat. 3<br>☞ Muta. 2, H341; ☞ Aquatic Chronic 2, H411; ☞ Skin Irrit. 2, H315; Skin Sens. 1, H317   | <2,5%   |

**· Dangerous components A:**

|                                     |  |
|-------------------------------------|--|
| CAS: 25068-38-6<br>NLP: 500-033-5   | reaction product: bisphenol-A-(epichlorhydrin) epoxy resin<br>(number average molecular weight = 700)<br>☒ Xi R36/38; ☒ Xi R43; ☒ N R51/53<br>☞ Aquatic Chronic 2, H411; ☞ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 |
| CAS: 2210-79-9<br>EINECS: 218-645-3 | 2,3-epoxypropyl o-tolyl ether<br>☒ Xn R68; ☒ Xi R38; ☒ Xi R43; ☒ N R51/53<br>Muta. Cat. 3<br>☞ Muta. 2, H341; ☞ Aquatic Chronic 2, H411; ☞ Skin Irrit. 2, H315; Skin Sens. 1, H317   |

**· Dangerous components B:**

|                                     |  |
|-------------------------------------|--|
| CAS: 100-51-6<br>EINECS: 202-859-9  | Benzyl alcohol<br>☒ Xn R20/22<br>☞ Acute Tox. 4, H302; Acute Tox. 4, H332  |
| CAS: 2855-13-2<br>EINECS: 220-666-8 | 3-aminomethyl-3,5,5-trimethylcyclohexylamine<br>☒ C R34; ☒ Xn R21/22; ☒ Xi R43<br>R52/53<br>☞ Skin Corr. 1B, H314; ☞ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412 |

(Contd. on page 3)

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Trade name: CM 510-1 (A&amp;B)

(Contd. of page 2)

|                                      |  |
|--------------------------------------|--|
| CAS: 25620-58-0<br>EINECS: 247-134-8 | trimethylhexane-1,6-diamine<br>C R34; Xn R22; Xi R43<br>Skin Corr. 1B, H314; Acute Tox. 4, H302; Skin Sens. 1, H317                      |
| CAS: 80-05-7<br>EINECS: 201-245-8    | bisphenol A<br>Xn R62; Xi R37-41; Xi R43<br>R52<br>Repr. Cat. 3<br>Repr. 2, H361f; Eye Dam. 1, H318; Skin Sens. 1, H317; STOT SE 3, H335 |

· **Additional information** For the wording of the listed risk phrases refer to section 16.

#### 4 First aid measures

**Description of first aid measures****After inhalation**

Take affected persons into the open air and position comfortably

Seek medical treatment in case of complaints.

· **After skin contact** Instantly wash with water and soap and rinse thoroughly. If skin irritation persist, call a physician.· **After eye contact** Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.· **After swallowing** Instantly call for doctor.**Information for doctor**· **Most important symptoms and effects, both acute and delayed** No further relevant information available.· **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

#### 5 Firefighting measures

**Extinguishing media**· **Suitable extinguishing agents** Water spray, carbon dioxide (CO<sub>2</sub>), carbon dioxide blanket, foam, or dry powder.· **Special hazards arising from the substance or mixture** Formation of poisonous gases during heating or in fires.**Advice for firefighters**· **Protective equipment:** In the event of fire, wear self contained breathing apparatus

#### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Keep away from ignition sources

Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

· **Environmental precautions:** Do not allow to enter drainage system, surface or ground water.**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Collect mechanically.

Dispose of contaminated material as waste according to item 13.

**Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

#### 7 Handling and storage

**Handling****Precautions for safe handling**

Provide sufficient air exchange and/or exhaust in work rooms. When using, do not eat, drink or smoke. Ingestion, exposure to skin and eyes and inhalation of any general vapours should be avoided.

· **Information about protection against explosions and fires:** No special measures required.**Conditions for safe storage, including any incompatibilities****Storage**· **Requirements to be met by storerooms and containers:** Keep in a cool, dry and dark place; 10 °C to 40 °C.· **Information about storage in one common storage facility:** Store away from foodstuffs.· **Further information about storage conditions:** Store in a locked cabinet and out of the reach of children.**Storage class 8 A**· **Specific end use(s)** No further relevant information available.

#### 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.**Control parameters****Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

(Contd. on page 4)

Trade name: CM 510-1 (A&B)

(Contd. of page 3)

- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and food.  
The usual precautionary measures should be adhered to general rules for handling chemicals.  
Take off immediately all contaminated clothing  
Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:** Use breathing protection in case of insufficient ventilation.
- **Protection of hands:**  
Protective gloves  
EN 374 + EN 388  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves** Synthetic gloves
- **Penetration time of glove material**  
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**  
Tightly sealed safety glasses.  
EN 166 + EN 170
- **Body protection:** Protective work clothing.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

|                  |                 |
|------------------|-----------------|
| Form:            | Fluid           |
| Colour:          | Light yellow    |
| Odour:           | Amine-like      |
| Odour threshold: | Not determined. |
- **pH-value:** Not determined.
- **Change in condition**

|                              |                |
|------------------------------|----------------|
| Melting point/Melting range: | Not determined |
| Boiling point/Boiling range: | > 60 °C        |
- **Flash point:** Not applicable
- **Inflammability (solid, gaseous)** Not applicable.
- **Ignition temperature:**
- **Decomposition temperature:** Not determined.
- **Self-inflammability:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive.
- **Critical values for explosion:**

|        |                 |
|--------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |
- **Vapour pressure:** Not determined.
- **Density** Not determined
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with**

|        |                 |
|--------|-----------------|
| Water: | Partly miscible |
|--------|-----------------|
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**

|            |                 |
|------------|-----------------|
| dynamic:   | Not determined. |
| kinematic: | Not determined. |
- **Other information** No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Stable until boiling point
- **Possibility of hazardous reactions**  
Reacts with strong acids and alkali  
Reacts with strong oxidizing agents

(Contd. on page 5)

Trade name: CM 510-1 (A&B)

(Contd. of page 4)

- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Corrosive gases/vapours

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

**2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine**

|      |      |                    |
|------|------|--------------------|
| Oral | LD50 | 1030 mg/kg (rango) |
|------|------|--------------------|

**100-51-6 Benzyl alcohol**

|      |      |                    |
|------|------|--------------------|
| Oral | LD50 | 1230 mg/kg (rango) |
|------|------|--------------------|

|        |      |                  |
|--------|------|------------------|
| Dermal | LD50 | 2000 mg/kg (rbt) |
|--------|------|------------------|

**25620-58-0 trimethylhexane-1,6-diamine**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 900 mg/kg (rango) |
|------|------|-------------------|

· **Primary irritant effect:**

- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** Sensitization possible by skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Corrosive

Product is suspected to cause injury to foetus.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**  
Do not allow product to reach ground water, water bodies or sewage system.  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

|           |  |
|-----------|--|
| 08 04 09* | waste adhesives and sealants containing organic solvents or other dangerous substances |
|-----------|--|

· **Uncleaned packagings:**

· **Recommendation:**

Disposal must be made according to official regulations.

Dispose of packaging according to regulations on the disposal of packagings.

### 14 Transport information

· **UN-Number**

· **ADR, IMDG, IATA**

(A) - / (B) 2735

· **UN proper shipping name**

· **ADR, IMDG, IATA**

(A) -  
(B) AMINES, LIQUID, CORROSIVE, NOS  
(trimetilhexanmetilendiamina; Isphorondiamine)

(Contd. on page 6)

Trade name: CM 510-1 (A&amp;B)

(Contd. of page 5)

|   |                       |          |
|---|-----------------------|----------|
| · Transport hazard class(es)  |                       |          |
| · ADR, IMDG, IATA   |                       |          |
| · Class   | (A)                   | / (B) 8  |
| · Label   | (A)                   | / (B) 8  |
| · Packing group   |                       |          |
| · ADR, IMDG, IATA (A) / (B) III   |                       |          |
| · Environmental hazards:  |                       |          |
| · Marine pollutant:   | No                    |          |
| · Special precautions for user Not applicable.  |                       |          |
| · EMS Number:   | (A) -<br>(B) F-A, S-B |          |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. |                       |          |
| · Transport/Additional information:   |                       |          |
| · ADR   |                       |          |
| · Limited quantities (LQ)   | (A)                   | / (B) 5L |
| · Tunnel restriction code   | (A)                   | / (B) E  |

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Designation according to EC guidelines:
- Hazard-determining components of labelling: Contains epoxy constituents. See information supplied by the manufacturer.
- National regulations
- Information about limitation of use: Employment restrictions concerning young persons must be observed.
- Chemical safety assessment: not required.

### 16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H361f Suspected of damaging fertility.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- R20/22 Harmful by inhalation and if swallowed.
- R21/22 Harmful in contact with skin and if swallowed.
- R22 Harmful if swallowed.
- R34 Causes burns.
- R36/38 Irritating to eyes and skin.
- R37 Irritating to respiratory system.
- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitisation by skin contact.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R52 Harmful to aquatic organisms.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R62 Possible risk of impaired fertility.
- R68 Possible risk of irreversible effects.

· Department issuing data specification sheet:

(Contd. on page 7)

MY



**Safety data sheet**  
according to 1907/2006/EC, Article 31

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**Trade name: CM 510-1 (A&B)**

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· \* **Data compared to the previous version altered.**

(Contd. of page 6)

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