1.1 Product identifier

LUX ELEMENTS®-COL-FLEX

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

Relevant identified uses of the substance or mixture:
Adhesive

Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet

LUX ELEMENTS GmbH & Co. KG, An der Schusterinsel 7, 51379 Leverkusen, Germany
Phone:+49 (0)2171/72 12-0, Fax:+49 (0)2171/72 12-40
info@luxelements.de, www.luxelements.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:
---

Telephone number of the company in case of emergencies:
+49 (0) 700 / 24 112 112 (LEC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

<table>
<thead>
<tr>
<th>Hazard class</th>
<th>Hazard category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOT SE</td>
<td>3</td>
<td>H335-May cause respiratory irritation.</td>
</tr>
<tr>
<td>Skin Irrit.</td>
<td>2</td>
<td>H315-Causes skin irritation.</td>
</tr>
<tr>
<td>Eye Dam.</td>
<td>1</td>
<td>H318-Causes serious eye damage.</td>
</tr>
</tbody>
</table>

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)
Danger

H335-May cause respiratory irritation. H315-Causes skin irritation. H318-Causes serious eye damage.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.
P261-Avoid breathing dust. P280-Wear protective gloves and eye protection / face protection.
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.
P405-Store locked up.
P501-Dispose of contents / container to an approved waste disposal facility.

Cement, portland, chemicals

2.3 Other hazards
The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substance
n.a.

3.2 Mixture

<table>
<thead>
<tr>
<th>Cement, portland, chemicals</th>
<th>Registration number (REACH)</th>
<th>--</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>EINECS, ELINCS, NLP</td>
<td>266-043-4</td>
<td></td>
</tr>
<tr>
<td>CAS</td>
<td>65997-15-1</td>
<td></td>
</tr>
<tr>
<td>content %</td>
<td>30-40</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification according to Regulation (EC) 1272/2008 (CLP)</th>
<th>STOT SE 3, H335</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
</tbody>
</table>

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
The substances named in this section are given with their actual, appropriate classification!
For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures
First-aiders should ensure they are protected!
Never pour anything into the mouth of an unconscious person!
If the person is unconscious, place in a stable side position and consult a doctor.

Inhalation
Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.

Skin contact
Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.
Unsuitable cleaning product:  
Solvent  
Thinners  

**Eye contact**  
Remove contact lenses. 
rinse with Previn(r) rinsing solution for at least 3 minutes, rinse with at least one litre respectively (OH⁻ ions are bound and inactivated - adsorption).  
Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.  
Protect uninjured eye.  
Follow-up examination by an ophthalmologist.  

**Ingestion**  
Rinse the mouth thoroughly with water.  
Do not induce vomiting - give copious water to drink. Consult doctor immediately.  
Keep Data Sheet available.  

**4.2 Most important symptoms and effects, both acute and delayed**  
If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.  
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.  
The following may occur:  
Eye contact:  
Pain  
Watering eyes  
eyes, reddened  
Inhalation:  
Irritation of the respiratory tract  
Coughing  
Skin contact:  
reddening of the skin  
Blisters by skin-contact  
Pain  
Ingestion:  
Pain in the mouth and throat  
stomach pain  

**4.3 Indication of any immediate medical attention and special treatment needed**  
Symptomatic treatment.  

---  

**SECTION 5: Firefighting measures**  

**5.1 Extinguishing media**  
**Suitable extinguishing media**  
Product is not combustible.  
Adapt to the nature and extent of fire.  
Water jet spray/foam/CO2/dry extinguisher  

**Unsuitable extinguishing media**  
None known  

**5.2 Special hazards arising from the substance or mixture**  
In case of fire the following can develop:  
Oxides of carbon  
Oxides of nitrogen  
Toxic gases  

**5.3 Advice for firefighters**  
In case of fire and/or explosion do not breathe fumes.  
Protective respirator with independent air supply.  
Dispose of contaminated extinction water according to official regulations.  
Extinction water produces an alkaline reaction.  

---  

**SECTION 6: Accidental release measures**
6.1 Personal precautions, protective equipment and emergency procedures
Ensure sufficient supply of air.
Avoid build up of dust.
Avoid inhalation, and contact with eyes or skin.

6.2 Environmental precautions
If leakage occurs, dam up.
Resolve leaks if this possible without risk.
Prevent from entering drainage system.
Prevent surface and ground-water infiltration, as well as ground penetration.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up
Collect spilled material with a dust-trapping sweeping agent or a suitable vacuum cleaner.
Fill the absorbed material into lockable containers.
Flush residue using copious water.

6.4 Reference to other sections
For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations
Ensure good ventilation.
Avoid build up of dust.
Avoid contact with eyes or skin.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities
Keep out of access to unauthorised individuals.
Not to be stored in gangways or stair wells.
Store product closed and only in original packing.
Store in a well-ventilated place.
Protect from direct sunlight.
Store in a dry place.
Store cool.

7.3 Specific end use(s)
No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Cement, portland, chemicals</th>
<th>Content %: 30-40</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL-TWA:</td>
<td>10 mg/m³ (total inh. dust), 4 mg/m³</td>
<td>WEL-STE: ---</td>
</tr>
<tr>
<td>(res. dust)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Monitoring procedures: ---
8.2 Exposure controls
8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.
Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.
These are specified by e.g. BS EN 14042.
BS EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
Tight fitting protective goggles with side protection (EN 166).
If applicable
Face protection (EN 166).

Skin protection - Hand protection:
Chemical resistant protective gloves (EN 374).
Recommended
Protective nitrile gloves (EN 374).
Minimum layer thickness in mm:
0.11
Permeation time (penetration time) in minutes:
> 480
Suitable are, e.g., safety gloves from KCL GmbH Co., D-36124 Eichenzell, e-mail vertrieb@kcl.de, following specifications:
740 Dermatril
Protective hand cream recommended.
The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions. The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).
Natural fibre or heat-resistant synthetic fibre

Respiratory protection:
If OES or MEL is exceeded. 
If applicable, filter P2 (EN 143), code colour white
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents. Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls
No information available at present.

<table>
<thead>
<tr>
<th>SECTION 9: Physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>9.1 Information on basic physical and chemical properties</strong></td>
</tr>
<tr>
<td>Physical state: Solid, powder</td>
</tr>
<tr>
<td>Colour: Grey</td>
</tr>
<tr>
<td>Odour: Odourless</td>
</tr>
<tr>
<td>Odour threshold: Not determined</td>
</tr>
<tr>
<td>pH-value: Alkaline reaction 10%</td>
</tr>
<tr>
<td>Melting point/freezing point: Not determined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range: n.a.</td>
</tr>
<tr>
<td>Flash point: n.a.</td>
</tr>
<tr>
<td>Evaporation rate: Not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas): n.a.</td>
</tr>
<tr>
<td>Lower explosive limit: n.a.</td>
</tr>
<tr>
<td>Upper explosive limit: n.a.</td>
</tr>
<tr>
<td>Vapour pressure: n.a.</td>
</tr>
<tr>
<td>Vapour density (air = 1): n.a.</td>
</tr>
<tr>
<td>Density: 1.33 g/cm³ (20°C)</td>
</tr>
<tr>
<td>Bulk density: Not determined</td>
</tr>
<tr>
<td>Solubility(ies): Not determined</td>
</tr>
<tr>
<td>Water solubility: Mixable</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water): Not determined</td>
</tr>
<tr>
<td>Auto-ignition temperature: Not determined</td>
</tr>
<tr>
<td>Decomposition temperature: n.a.</td>
</tr>
<tr>
<td>Viscosity:</td>
</tr>
<tr>
<td>Explosive properties: Product is not explosive.</td>
</tr>
<tr>
<td>Oxidising properties: No</td>
</tr>
</tbody>
</table>

| **9.2 Other information** |
| Miscibility: Not determined |
| Fat solubility / solvent: Not determined |
| Conductivity: Not determined |
SECTION 10: Stability and reactivity

10.1 Reactivity
The product has not been tested.

10.2 Chemical stability
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions
No dangerous reactions are known.

10.4 Conditions to avoid
Protect from humidity.
reacts with water
Alkaline reaction

10.5 Incompatible materials
Avoid contact with strong alkalies.
Avoid contact with strong oxidizing agents.
Avoid contact with strong acids.

10.6 Hazardous decomposition products
No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Possibly more information on health effects, see Section 2.1 (classification).

<table>
<thead>
<tr>
<th>LUX ELEMENTS®-COL-FLEX</th>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acute toxicity, by dermal route:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td></td>
<td>Acute toxicity, by inhalation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td></td>
<td>Skin corrosion/irritation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td></td>
<td>Serious eye damage/irritation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td></td>
<td>Respiratory or skin sensitisation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td></td>
<td>Germ cell mutagenicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td></td>
<td>Carcinogenicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td></td>
<td>Reproductive toxicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td></td>
<td>Aspiration hazard:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td></td>
<td>Symptoms:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cement, portland, chemicals</th>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skin corrosion/irritation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Irritant</td>
</tr>
<tr>
<td></td>
<td>Serious eye damage/irritation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Intensively irritant</td>
</tr>
<tr>
<td></td>
<td>Serious eye damage/irritation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Risk of serious damage to eyes.</td>
</tr>
</tbody>
</table>
SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

<table>
<thead>
<tr>
<th>LUX ELEMENTS®-COL-FLEX</th>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.2. Persistence and degradability:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inorganic products cannot be eliminated from water through biological purification methods.</td>
<td></td>
</tr>
<tr>
<td>12.5. Results of PBT and vPvB assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
<tr>
<td>12.6. Other adverse effects:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n.d.a.</td>
</tr>
</tbody>
</table>

Other information: AOX

Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

Other information: DOC

DOC-elimination degree(complexing organic substance) $\geq 80\%/28d$: n.a.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
10 13 11 wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 14 waste concrete and concrete sludge
17 01 07 mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
E.g. dispose at suitable refuse site.
E.g. suitable incineration plant.

For contaminated packing material
Pay attention to local and national official regulations.
15 01 01 paper and cardboard packaging
15 01 02 plastic packaging
Empty container completely.
Uncontaminated packaging can be recycled.
Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements
14.1. UN number: n.a.

Transport by road/by rail (ADR/RID)
14.2. UN proper shipping name:
14.3. Transport hazard class(es): n.a.
14.4. Packing group: n.a.
Classification code: n.a.
LQ: n.a.
14.5. Environmental hazards: Not applicable
Tunnel restriction code:

Transport by sea (IMDG-code)
14.2. UN proper shipping name:
14.3. Transport hazard class(es): n.a.
14.4. Packing group: n.a.
Marine Pollutant: n.a
14.5. Environmental hazards: Not applicable

Transport by air (IATA)
14.2. UN proper shipping name:
14.3. Transport hazard class(es): n.a.
14.4. Packing group: n.a.
14.5. Environmental hazards: Not applicable

14.6. Special precautions for user
Unless specified otherwise, general measures for safe transport must be followed.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

Observe restrictions:
**15.2 Chemical safety assessment**

A chemical safety assessment is not provided for mixtures.

---

**SECTION 16: Other information**

Revised sections: 2, 4, 15, 16

These details refer to the product as it is delivered. Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

<table>
<thead>
<tr>
<th>Classification in accordance with regulation (EC) No. 1272/2008 (CLP)</th>
<th>Evaluation method used</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOT SE 3, H335</td>
<td>Classification according to calculation procedure.</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>Classification according to calculation procedure.</td>
</tr>
<tr>
<td>Eye Dam. 1, H318</td>
<td>Classification according to calculation procedure.</td>
</tr>
</tbody>
</table>

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.

STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation

Skin Irrit. — Skin irritation

Eye Dam. — Serious eye damage

---

Any abbreviations and acronyms used in this document:

- acc., acc. to according, according to
- ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
- AOX Adsorbable organic halogen compounds
- approx. approximately
- Art., Art. no. Article number
- ASTM ASTM International (American Society for Testing and Materials)
- BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
- BauA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
- BSEF The International Bromine Council
- bw body weight
- CAS Chemical Abstracts Service
- CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
- CMR carcinogenic, mutagenic, reproductive toxic
- DMEL Derived Minimum Effect Level
- DNEL Derived No Effect Level
- dw dry weight
- e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
- EC European Community
The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

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