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

1.1 Product identifier
- Trade name: illbruck CT468
- MSDS code: A-I-CT468

1.2 Relevant identified uses of the substance or mixture and uses advised against
- Restricted to professional users.
- Application of the substance / the mixture: Adhesives

1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  tremco illbruck Productie B.V.
  Vlietskade 1032, 4241 WC Arkel
  T: +31 (0) 183568000, F: +31 (0) 183568100
  msds@tremco-illbruck.com

- Further information obtainable from:
  tremco illbruck Ltd
  Coupland Road, Hindley Green, Wigan, WN2 4HT
  T: +44 (0) 1942251400, F: +44 (0) 1942251410
  www.tremco-illbruck.co.uk, uk.info@tremco-illbruck.com

1.4 Emergency telephone number:
During office hours tel.: +44 (0) 1942251400. At all other times please contact your national poisoning centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  Flam. Liq. 2 H225 Highly flammable liquid and vapour.
  Skin Irrit. 2 H315 Causes skin irritation.
  Eye Irrit. 2 H319 Causes serious eye irritation.
  Repr. 2 H361d Suspected of damaging the unborn child.
  STOT SE 3 H336 May cause drowsiness or dizziness.
  STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
  Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
  The product is classified and labelled according to the CLP regulation.

Hazard pictograms
- GHS02
- GHS07
- GHS08

Signal word: Danger
Contains: toluene

(Contd. on page 2)
butanone  
Hydrocarbons,C6-C7,n-alkanes,isoalkanes,cyclics,<5% n-hexane

**Hazard statements**

H225  Highly flammable liquid and vapour.
H315  Causes skin irritation.
H319  Causes serious eye irritation.
H361d  Suspected of damaging the unborn child.
H365  May cause drowsiness or dizziness.
H336  May cause damage to organs through prolonged or repeated exposure.
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.
P260  Do not breathe vapours.
P280  Wear protective gloves/protective clothing/eye protection/face protection.
P273  Avoid release to the environment.
P202  Do not handle until all safety precautions have been read and understood.
P305+P351+P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313  IF exposed or concerned: Get medical advice/attention.

**Supplemental information:**

Restricted to professional users.

**2.3 Other hazards**

Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

---

**SECTION 3: Composition/information on ingredients**

**3.2 Mixtures**

**Description:** Mixture of substances listed below with non-hazardous additions.

<table>
<thead>
<tr>
<th>CAS: 108-88-3</th>
<th>EINECS: 203-625-9</th>
<th>Toluen</th>
<th>50- &lt;75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg.nr.: 01-2119471310-51-xxxx</td>
<td>Flam. Liq. 2, H225; Rep. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 78-93-3</th>
<th>EINECS: 201-159-0</th>
<th>Butanone</th>
<th>20- &lt;30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg.nr.: 01-2119457290-43-xxxx</td>
<td>Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EC number: 921-024-6</th>
<th>Reg.nr.: 01-2119475514-35-xxxx</th>
<th>Hydrocarbons,C6-C7,n-alkanes,isoalkanes,cyclics,&lt;5% n-hexane</th>
<th>10- &lt;20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 1314-13-2</th>
<th>EINECS: 215-222-5</th>
<th>Zinc oxide</th>
<th>0.1- &lt;1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg.nr.: 01-2119463881-32-xxxx</td>
<td>Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Additional information:** For the wording of the listed hazard phrases refer to section 16.
SECTION 4: First aid measures

4.1 Description of first aid measures
General information: Take affected persons out of danger area and lay down.
After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
After skin contact:
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed
Breathing difficulty
Headache
Dizziness
Nausea
Irritating to eyes and skin.
May cause damage to organs through prolonged or repeated exposure.
Information for doctor: No further relevant information available.
Hazards: No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
Carbon monoxide (CO)
Carbon dioxide
Hydrogen chloride (HCl)

5.3 Advice for firefighters
Protective equipment:
Wear self-contained respiratory protective device.
Wear fully protective suit.
Additional information
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Ensure good ventilation/exhaustion at the workplace.
- Do not breathe vapour.
- Avoid contact with the eyes and skin.
- Pregnant women should strictly avoid inhalation or skin contact.

· Information about fire - and explosion protection:
- Keep ignition sources away - Do not smoke.
- Protect against electrostatic charges.
- Fumes can combine with air to form an explosive mixture.
- Use explosion-proof apparatus / fittings and spark-proof tools.

7.2 Conditions for safe storage, including any incompatibilities
- Storage:
  · Requirements to be met by storerooms and receptacles:
    - Store in a cool location.
    - Store only in unopened original receptacles.
  · Information about storage in one common storage facility:
    - Store away from oxidising agents.
    - Protect from heat and direct sunlight.
  · Further information about storage conditions:
    - Keep container tightly sealed.
    - Store in cool, dry conditions in well sealed receptacles.
    - Storage temperature: +10 °C to +21 °C

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Substance</th>
<th>WEL</th>
<th>Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3 toluene</td>
<td></td>
<td>384 mg/m³, 100 ppm</td>
</tr>
<tr>
<td></td>
<td>Sk</td>
<td>191 mg/m³, 50 ppm</td>
</tr>
</tbody>
</table>

(Contd. on page 5)
Trade name: illbruck CT468

<table>
<thead>
<tr>
<th>78-93-3 butanone</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Sk, BMGV</td>
</tr>
</tbody>
</table>

· Ingredients with biological limit values:

78-93-3 butanone

<table>
<thead>
<tr>
<th>BMGV</th>
<th>70 µmol/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium: urine</td>
<td></td>
</tr>
<tr>
<td>Sampling time: post shift</td>
<td></td>
</tr>
<tr>
<td>Parameter: butan-2-one</td>
<td></td>
</tr>
</tbody>
</table>

· Additional information:
  The lists valid during the making were used as basis.

· 8.2 Exposure controls
  · Personal protective equipment:
  · General protective and hygienic measures:
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing
    Wash hands before breaks and at the end of work.
    Do not breathe vapour.
    Avoid contact with the eyes and skin.
    Use skin protection cream for skin protection.
    Pregnant women should strictly avoid inhalation or skin contact.
  · Respiratory protection:
    Use only in well-ventilated areas.
    Take note of emission threshold.
    In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
    Filter A2/P3
  · Protection of hands:

  Protective gloves

  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

  · Material of gloves
    Nitrile rubber, NBR
    The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

  · Penetration time of glove material
    The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form: Viscous</td>
</tr>
<tr>
<td>Colour: Amber coloured</td>
</tr>
<tr>
<td>Odour: Like aromatic solvents</td>
</tr>
<tr>
<td>Initial boiling point and boiling range: Undetermined.</td>
</tr>
<tr>
<td>Flash point: -10 °C</td>
</tr>
<tr>
<td>Explosive properties:</td>
</tr>
<tr>
<td>Product is not explosive. However, formation of explosive air/vapour mixtures are possible.</td>
</tr>
<tr>
<td>Explosion limits:</td>
</tr>
<tr>
<td>Lower: 0.9 Vol %</td>
</tr>
<tr>
<td>Upper: 11.5 Vol %</td>
</tr>
<tr>
<td>Density at 20 °C: 0.89 g/cm³</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water: Insoluble.</td>
</tr>
<tr>
<td>Viscosity:</td>
</tr>
<tr>
<td>Dynamic at 20 °C: 5000 - 6000 cps</td>
</tr>
<tr>
<td>Solvent content: 675 g/l</td>
</tr>
</tbody>
</table>

### SECTION 10: Stability and reactivity

<table>
<thead>
<tr>
<th>Stability and reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1 Reactivity Stable</td>
</tr>
<tr>
<td>10.2 Chemical stability</td>
</tr>
<tr>
<td>Thermal decomposition / conditions to be avoided:</td>
</tr>
<tr>
<td>No decomposition if used according to specifications.</td>
</tr>
<tr>
<td>10.3 Possibility of hazardous reactions</td>
</tr>
<tr>
<td>Reacts with strong oxidising agents.</td>
</tr>
<tr>
<td>Reacts with reducing agents.</td>
</tr>
<tr>
<td>10.4 Conditions to avoid</td>
</tr>
<tr>
<td>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</td>
</tr>
<tr>
<td>10.5 Incompatible materials:</td>
</tr>
<tr>
<td>PVC</td>
</tr>
<tr>
<td>Polystyrene</td>
</tr>
</tbody>
</table>
SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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

LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3 toluene</td>
<td>5000 mg/kg (rat)</td>
<td>6000 mg/kg (rabbit)</td>
<td>21 mg/L (rat)</td>
</tr>
<tr>
<td>Hydrocarbons,C6-C7,n-alkanes,isoalkanes,cyclics,&lt;5% n-hexane</td>
<td>5000 mg/kg (rat)</td>
<td>2000 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Primary irritant effect:

Skin corrosion/irritation

Strong degreasing effect.

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

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

Additional toxicological information:

Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Harmful: may cause lung damage if swallowed.

Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

CAS 108-88-3: Repr. 2 (CLP)

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

Suspected of damaging the unborn child.

STOT-single exposure

May cause drowsiness or dizziness.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Based on available data, the classification criteria are not met.
SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

<table>
<thead>
<tr>
<th>Substance</th>
<th>LC50/96 h</th>
<th>EC50/48 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3 toluene</td>
<td>24 mg/L (rainbow trout) 13 mg/L (carassius auratus) 11.5 mg/L (daphnia magna)</td>
<td></td>
</tr>
<tr>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, &lt;5% n-hexane</td>
<td>1-10 mg/L (fish) 1-10 mg/L (bacterium) 1-10 mg/L (fish)</td>
<td></td>
</tr>
<tr>
<td>1314-13-2 zinc oxide</td>
<td>1.1 mg/L (fish) 1000 mg/L (daphnia magna)</td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability
The product is not easily, but potentially biodegradable.

12.3 Bioaccumulative potential
Low potential for accumulating in organisms

12.4 Mobility in soil
No further relevant information available.

Ecotoxic effects:

<table>
<thead>
<tr>
<th>Substance</th>
<th>IC50/72 h</th>
<th>NOEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3 toluene</td>
<td>12 mg/L (selenstrum capricornutum) 29 mg/L (bacterium)</td>
<td></td>
</tr>
<tr>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, &lt;5% n-hexane</td>
<td>10-100 mg/L (algae)</td>
<td></td>
</tr>
<tr>
<td>1314-13-2 zinc oxide</td>
<td>0.1-1 mg/L (algae)</td>
<td></td>
</tr>
</tbody>
</table>

Remark: Harmful to fish

Additional ecological information:

General notes:
The material is harmful to the environment.
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation
Disposal must be made according to official regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Waste disposal key: UK (WM3) : HP3 HP4 HP5 HP10 HP14

European waste catalogue
08 04 09* waste adhesives and sealants containing organic solvents or other hazardous substances

Uncleaned packaging:
Recommendation:
Dispose of packaging according to regulations on the disposal of packagings.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
Non contaminated packagings may be recycled.

SECTION 14: Transport information

14.1 UN-Number
ADR, IMDG, IATA
UN1133

14.2 UN proper shipping name
ADR
1133 ADHESIVES
IMDG, IATA
ADHESIVES

14.3 Transport hazard class(es)
ADR

Class
3 (F1) Flammable liquids.
Label
3

IMDG, IATA

Class
3 Flammable liquids.
Label
3

14.4 Packing group
ADR, IMDG, IATA
II

14.5 Environmental hazards:
Marine pollutant:
No

14.6 Special precautions for user
Warning: Flammable liquids.
Danger code (Kemler):
33
EMS Number:
F-E,S-D
Stowage Category
B

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable.
Trade name: illbruck CT468

**Transport/Additional information:**
- **ADR**
  - Limited quantities (LQ) 5L
  - Excepted quantities (EQ) Code: E2
  - Maximum net quantity per inner packaging: 30 ml
  - Maximum net quantity per outer packaging: 500 ml
- **IMDG**
  - Limited quantities (LQ) 5L
  - Excepted quantities (EQ) Code: E2
  - Maximum net quantity per inner packaging: 30 ml
  - Maximum net quantity per outer packaging: 500 ml

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 48

**National regulations:**
- **Information about limitation of use:**
  - Employment restrictions concerning juveniles must be observed.
  - Employment restrictions concerning pregnant and lactating women must be observed.

**Other regulations, limitations and prohibitive regulations**
- "REACH" Regulation (EC) No 1907/2006; ANNEX XVII - RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES
- **Substances of very high concern (SVHC) according to REACH, Article 57** Not applicable.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases**
- H225: Highly flammable liquid and vapour.
- H304: May be fatal if swallowed and enters airways.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H336: May cause drowsiness or dizziness.
- H361d: Suspected of damaging the unborn child.
### 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 Harmonised 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 (division of the American Chemical Society)
- **VOC**: Volatile Organic Compounds (USA, EU)
- **LC50**: Lethal concentration, 50 percent
- **LD50**: Lethal dose, 50 percent
- **PBT**: Persistent, Bioaccumulative and Toxic
- **SVHC**: Substances of Very High Concern
- **vPvB**: very Persistent and very Bioaccumulative
- **Flam. Liq. 2**: Flammable liquids – Category 2
- **Skin Irrit. 2**: Skin corrosion/irritation – Category 2
- **Eye Irrit. 2**: Serious eye damage/eye irritation – Category 2
- **Repr. 2**: Reproductive toxicity – Category 2
- **STOT SE 3**: Specific target organ toxicity (single exposure) – Category 3
- **STOT RE 2**: Specific target organ toxicity (repeated exposure) – Category 2
- **Asp. Tox. 1**: Aspiration hazard – Category 1
- **Aquatic Acute 1**: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
- **Aquatic Chronic 1**: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
- **Aquatic Chronic 2**: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- **Aquatic Chronic 3**: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

* Data compared to the previous version altered.