1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation
TIP TOP SPECIAL CEMENT BL, free of chlorinated and aromatic hydrocarbons

Art.-No.:
515 9152 > PC 276, 515 9334 > PC 276, 515 9303 > PC 344, 515 9341 > PC 045, 515 9365 > PC 276,
515 9389 > PC 276, 515 9366 > PC 276, 515 9327, 515 9336, 515 9358, 515 9406
PC = production code

Use of the substance/preparation
Adhesive

Company/undertaking identification
REMA TIP TOP GmbH
Gruber Straße 63
D-85586 Poing

Stahlgruber Otto Gruber GmbH & Co KG
Gruber Straße 65
D-85586 Poing

Emergency telephone: ++49 (0) 6132 / 84463 (GBK Gefahrgut Buero GmbH, Ingelheim)

Inquiry office
Responsible for the safety data sheet: sds@gbk-ingelheim.de

2. Hazards identification

Classification
Indications of danger: Highly flammable, Irritant, Dangerous for the environment
R-phrases:
- Highly flammable.
- Irritating to eyes and skin.
- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Vapours may cause drowsiness and dizziness.

3. Composition/information on ingredients

Chemical characterization (preparation)
Preparation with ethyl acetate

Hazardous components

<table>
<thead>
<tr>
<th>EC-No.</th>
<th>CAS-No.</th>
<th>Chemical name</th>
<th>Quantity</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>205-500-4</td>
<td>141-78-6</td>
<td>Ethyl acetate</td>
<td>&lt; 60 %</td>
<td>F, Xi R11-36-66-67</td>
</tr>
<tr>
<td>238-677-1</td>
<td>14634-93-6</td>
<td>Zinc-bis (N-ethyl-N-phenyldithiocarbamate)</td>
<td>&lt; 5 %</td>
<td>Xi  R36-53</td>
</tr>
<tr>
<td>215-222-5</td>
<td>1314-13-2</td>
<td>zinc oxide</td>
<td>&lt; 1 %</td>
<td>N  R50-53</td>
</tr>
</tbody>
</table>

Further Information
According to note P to the directive 67/548/EEC, "Solvent naptha (petroleum)" is not to be classified as "carcinogenic" ingredient because a benzene content (EINECS No. 200-753-7) is below 0.1 % by weight.

4. First aid measures
General information
Remove contaminated soaked clothing immediately.
If you feel unwell, seek medical advice.
Take away from danger area and lay down affected person.

After inhalation
Move to fresh air in case of accidental inhalation of vapours or decomposition products.
In the event of symptoms refer for medical treatment.

After contact with skin
Wash off with soap and plenty of water.
Consult a doctor if skin irritation persists.

After contact with eyes
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical treatment by eye specialist.

After ingestion
Induce vomiting only upon the advice of a physician.
Attention. Beware, danger of aspiration.
Do not induce vomiting.
Summon a doctor immediately.

5. Fire-fighting measures

Suitable extinguishing media
Foam, carbon dioxide (CO2), dry chemical, water-spray.

Extinguishing media which must not be used for safety reasons
Full water jet

Special exposure hazards arriving from substance or preparation itself, combustion products, resulting gases
Fire may produce:
Carbon monoxide and carbon dioxide.

Special protective equipment for fire-fighters
Use breathing apparatus with independent air supply.
Protective suit

Additional information
Vapours are heavier than air and spread along ground.
The vapour/air mixture is explosive, even in empty, uncleaned receptacles.
Cool containers at risk with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

6. Accidental release measures

Personal precautions
In case of vapour formation use respirator.
Use only explosion-proof equipment.
Ensure adequate ventilation.
Use personal protective clothing.
Keep away sources of ignition.

Environmental precautions
Do not discharge into the drains/surface waters/groundwater.
Methods for cleaning up/taking up
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Shovel into suitable container for disposal.

7. Handling and storage

Handling
Advice on safe handling
Keep container tightly closed.
Vapours are heavier than air and spread along ground.
Keep a good ventilation and air-exhaust at the place of work.
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion
Keep away from heat and sources of ignition.
Do not smoke.
Take precautionary measures against static discharges.
Use only explosion-proof equipment.

Storage
Requirements for storage rooms and vessels
Keep container tightly closed in a dry, cool and well-ventilated place.
Pay attention to anti-explosion rules.

Advice on storage compatibility
Incompatible with:
Oxidizing agents
Nitrous acid and other nitrosating agents.

Further information on storage conditions
Keep away from food, drink and animal feeding stuffs.

Storage class (VCI) 3 A

8. Exposure controls/personal protection

Exposure limit values

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Substance</th>
<th>ml/m³</th>
<th>mg/m³</th>
<th>F/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>141-78-6</td>
<td>Ethyl acetate</td>
<td>200</td>
<td>-</td>
<td>-</td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td>Ethyl acetate</td>
<td>400</td>
<td>-</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td>1314-13-2</td>
<td>Zinc oxide, fume (OLD)</td>
<td>-</td>
<td>5</td>
<td></td>
<td>TWA (8 h)</td>
<td>OES</td>
</tr>
<tr>
<td></td>
<td>Zinc oxide, fume (OLD)</td>
<td>-</td>
<td>10</td>
<td></td>
<td>STEL (15 min)</td>
<td>OES</td>
</tr>
</tbody>
</table>

Exposure controls

Occupational exposure controls
Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures
Do not inhale vapours.
Wash hands before breaks and immediately after handling the product.
When using, do not eat, drink or smoke.
Treat subsequently with skin cream.
Remove and wash contaminated clothes before re-use.
Respiratory protection
In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A).

Hand protection
Splash protection:
Protective gloves resistant to chemicals made off natural-rubber latex, Minimum coat thickness 0.6 mm, Permeation resistance (wear duration) approx. 10 minutes, i.e. protective glove <Lapren 706> made by www.kcl.de.
Protective gloves resistant to chemicals made off butyl, Minimum coat thickness 0.7 mm, Permeation resistance (wear duration) > 60 minutes, i.e. protective glove <Butoject 898> made by www.kcl.de.
This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.
Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Eye protection
Eye wash bottle with pure water.
Tightly fitting goggles

Skin protection
Solvent-resistant apron.

9. Physical and chemical properties

General information
Physical state: Liquid
Colour: Blue
Odour: Ester-like

Important health, safety and environmental information

<table>
<thead>
<tr>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling point</td>
</tr>
<tr>
<td>Flash point</td>
</tr>
</tbody>
</table>

Flammability
Lower explosion limits: 0.6 vol. %
Upper explosion limits:
Ignition temperature: 460 °C
Density (at 20 °C): 0.88 g/cm³
Water solubility: Immiscible
Viscosity / dynamic:
at (20 °C): 5500 - 6500 mPa·s
Flow time:
at (23 °C): > 30 s 3 DIN EN ISO 2431

Solvent content
< 85 %

10. Stability and reactivity
Conditions to avoid
To avoid thermal decomposition, do not overheat.
Vapour/air mixtures are explosive at intensive warming.
Heating can release vapours which can be ignited.

Materials to avoid
Nitrous acid and other nitrosating agents.
Oxidizing agents.

Hazardous decomposition products
Carbon monoxide and carbon dioxide.
An inappropriate handling, for instance major amounts of product combined with strong heat and nitrosating agents, renders possible a cleavage of nitrosamines in traces.

Additional information
No decomposition if stored and applied as directed.

11. Toxicological information

Empirical data on effects on humans
Irritating to eyes and skin.
Vapours may cause drowsiness and dizziness.
Effects of breathing high concentrations of vapour may include. Headache, dizziness, weakness, unconsciousness.
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Further information
An inappropriate handling, for instance major amounts of product combined with strong heat and nitrosating agents, renders possible a cleavage of nitrosamines in traces.

12. Ecological information

Further information
Do not flush into surface water or sanitary sewer system.
Slightly water hazardous.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. Disposal considerations

Advice on disposal
Where possible recycling is preferred to disposal.
Can be incinerated, when in compliance with local regulations.

Waste disposal number of waste from residues/unused products
080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances
Classified as hazardous waste.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal.
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
Packaging that cannot be cleaned should be disposed of like the product.
14. Transport information

**Land transport (ADR/RID)**

<table>
<thead>
<tr>
<th>Class</th>
<th>Classification code</th>
<th>Hazard-no.</th>
<th>UN number</th>
<th>Hazard label</th>
<th>ADR/RID packing group</th>
<th>Limited quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>F1</td>
<td>33</td>
<td>1133</td>
<td>3</td>
<td>II</td>
<td>LQ 6</td>
</tr>
</tbody>
</table>

**Description of the goods**

Adhesives

**Remarks (land transport)**

LQ 6: combination packaging: 5 l / 30 kg (total gross mass); trays: 1 l / 20 kg (total gross mass).

**Inland waterways transport**

**Marine transport**

<table>
<thead>
<tr>
<th>IMDG code</th>
<th>UN number</th>
<th>Marine pollutant</th>
<th>EmS</th>
<th>IMDG packing group</th>
<th>Limited quantity</th>
<th>Hazard label</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1133</td>
<td>No</td>
<td>F-E; S-D</td>
<td>II</td>
<td>5 L / 30 kg</td>
<td>3</td>
</tr>
</tbody>
</table>

**Description of the goods**

ADHESIVES

**Remarks (marine transport)**

Limited quantities (section 3.4): combination packaging: 5 l / 30 kg (total gross mass); trays: 5 l / 20 kg (total gross mass).

**Air transport**

<table>
<thead>
<tr>
<th>ICAO/IATA-DGR</th>
<th>UN/ID number</th>
<th>Hazard label</th>
<th>IATA-packing instructions - Passenger</th>
<th>IATA-max. quantity - Passenger</th>
<th>IATA-packing instructions - Cargo</th>
<th>IATA-max. quantity - Cargo</th>
<th>ICAO packing group</th>
<th>Limited quantity Passenger</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1133</td>
<td>3</td>
<td>305</td>
<td>5 L</td>
<td>307</td>
<td>60 L</td>
<td>II</td>
<td>Y305 / 1 L</td>
</tr>
</tbody>
</table>

**Description of the goods**

ADHESIVES

15. Regulatory information

**Labelling**

**Indication of danger**

F - Highly flammable; Xi - Irritant; N - Dangerous for the environment

**Additional advice on labelling**

According to EC-regulations the product is to be labelled as follows:
R phrases

11 Highly flammable.
67 Vapours may cause drowsiness and dizziness.
36/38 Irritating to eyes and skin.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

16 Keep away from sources of ignition - No smoking.
02 Keep out of the reach of children.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
29 Do not empty into drains.
46 If swallowed, seek medical advice immediately and show this container or label.
61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

National regulatory information

Employment restrictions
Observe employment restrictions for young people.; Observe employment restrictions for child bearing mothers and nursing.

Water contaminating class
1999/13/EC (VOC)
1 - slightly water contaminating
16. Other information

Full text of R-phrases referred to under sections 2 and 3

11 Highly flammable.
36 Irritating to eyes.
38 Irritating to skin.
50 Very toxic to aquatic organisms.
51 Toxic to aquatic organisms.
53 May cause long-term adverse effects in the aquatic environment.
65 Harmful: may cause lung damage if swallowed.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.
36/38 Irritating to eyes and skin.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Other data

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

*(n.a. = not applicable; n.d. = not determined)*

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)