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

1.1 Product identifier
   Trade name
   Combsolid

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Relevant identified uses of the substance or mixture
   chemical analysis
   Uses advised against
   No data available.

1.3 Details of the supplier of the safety data sheet
   Address
   ELTRA GmbH
   Retsch-Allee 1-5
   42781 Haan
   GERMANY
   Telephone no.  +49 (0) 2104 23 33-400
   Fax no.  +49 (0) 2104 23 33-499
   Information provided by / telephone
   +49 (0) 2104 23 33-192
   Advice on Safety Data Sheet
   info@eltra.com

1.4 Emergency telephone number
   For medical advice (in German and English):
   +49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   Classification in accordance with Regulation (EC) No 1272/2008 (CLP)
   Acute Tox. 4; H302
   Classification information
   This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:
   Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP
   Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements
   Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)
   Hazard pictograms
   !
   GHS07
   Signal word
   Warning
   Hazardous component(s) to be indicated on label:
   tungsten-trioxide
   Hazard statement(s)
Trade name: Combsolid

H302 Harmful if swallowed.

Precautionary statement(s)
- P264 Wash thoroughly after handling.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P501 Dispose of contents/container to a facility in accordance with local and national regulations.

2.3 Other hazards
No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances
Not applicable. The product is not a substance.

3.2 Mixtures
Hazardous ingredients

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>Classification (EC) 1272/2008 (CLP)</th>
<th>Concentration</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>tungsten-trioxide</td>
<td>Acute Tox. 4; H302</td>
<td>&lt; 100.00</td>
<td>%-b.w.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS / EC / Index / REACH no</th>
<th>concentration %</th>
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<tr>
<td>1314-35-8</td>
<td></td>
</tr>
<tr>
<td>215-231-4</td>
<td></td>
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<tr>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Full Text for all H-phrases and EUH-phrases: pls. see section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. If the patient is likely to become unconscious, place and transport in stable sideways position.

After inhalation
Remove affected person from the immediate area. Ensure supply of fresh air. Irregular breathing/no breathing: artificial respiration. Call a doctor immediately.

After skin contact
Wash off immediately with soap and water. Get medical attention if pain still persists.

After eye contact
Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical assistance.

After ingestion
Call a doctor immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed
No data available.

4.3 Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

Unsuitable extinguishing media
No data available.

5.2 Special hazards arising from the substance or mixture
In the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO2); Combustion products of this material have to be classed invariably as respiratory poison.

5.3 Advice for firefighters
Use self-contained breathing apparatus. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

For emergency responders
No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions
Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3 Methods and material for containment and cleaning up
Take up mechanically. Send in suitable containers for recovery or disposal.

6.4 Reference to other sections
No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Advice on safe handling
Provide good ventilation at the work area (local exhaust ventilation, if necessary). If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn. Avoid eye, skin and clothing contact. Avoid the formation and deposition of dust.

General protective and hygiene measures
Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Wash hands before breaks and after work. Provide eye wash fountain in work area. Have emergency shower available.

Advice on protection against fire and explosion
Avoid formation of dust.

7.2 Conditions for safe storage, including any incompatibilities
Technical measures and storage conditions
Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels
Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original.

7.3 Specific end use(s)
No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Occupational exposure limit values

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
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<td>1</td>
<td>Dust</td>
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<td></td>
<td>List of approved workplace exposure limits (WELs) / EH40</td>
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<tr>
<td></td>
<td>Dust respirable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WEL long-term (8-hr TWA reference period)</td>
<td>4 mg/m³</td>
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<tr>
<td></td>
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<td>see Definition 44 &quot;Dust&quot;</td>
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<tr>
<td></td>
<td>List of approved workplace exposure limits (WELs) / EH40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8.2 Exposure controls

Appropriate engineering controls
No data available.

Personal protective equipment

Respiratory protection
If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection
Safety glasses with side protection shield (EN 166)

Hand protection
In case of intensive contact, wear protective gloves (EN 374). Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other
Normal chemical work clothing.

Environmental exposure controls
No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
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<tr>
<th>Form/Colour</th>
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<tbody>
<tr>
<td>Powder</td>
<td>yellow to green</td>
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<table>
<thead>
<tr>
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<table>
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<table>
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<table>
<thead>
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<th>Boiling point / boiling range</th>
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<tbody>
<tr>
<td>No data available</td>
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</table>

<table>
<thead>
<tr>
<th>Melting point / melting range</th>
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<tbody>
<tr>
<td>Value</td>
<td>1472 °C</td>
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<table>
<thead>
<tr>
<th>Decomposition point / decomposition range</th>
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<tbody>
<tr>
<td>No data available</td>
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</table>

<table>
<thead>
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<th>Flash point</th>
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</thead>
<tbody>
<tr>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>
Trade name: Combsolid

Not applicable

### Auto-ignition temperature
No data available

### Oxidising properties
No data available

### Explosive properties
No data available

### Flammability (solid, gas)
No data available

### Lower flammability or explosive limits
No data available

### Upper flammability or explosive limits
No data available

### Vapour pressure
No data available

### Vapour density
No data available

### Evaporation rate
No data available

### Relative density
No data available

**Density**

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<thead>
<tr>
<th>Value</th>
<th>g/cm³</th>
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</table>

### Solubility in water

<table>
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<th>Comments</th>
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### Solubility(ies)
No data available

### Partition coefficient: n-octanol/water
No data available

### Viscosity
No data available

9.2 Other information

**Other information**

No data available.

### SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable if stored and handled properly.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

strong oxidizing agents; bromine pentfluoride

10.6 Hazardous decomposition products
When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

### Acute oral toxicity (result of the ATE calculation for the mixture)

<table>
<thead>
<tr>
<th>No</th>
<th>Product Name</th>
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</table>


### Acute oral toxicity

<table>
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<th>No</th>
<th>Product Name</th>
<th>LD50</th>
<th>Species</th>
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<tbody>
<tr>
<td>1</td>
<td>Combsolid</td>
<td>1059</td>
<td>rat</td>
</tr>
</tbody>
</table>

### Acute dermal toxicity

No data available

### Acute inhalational toxicity

No data available

### Skin corrosion/irritation

<table>
<thead>
<tr>
<th>No</th>
<th>Product Name</th>
<th>Evaluation</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Combsolid</td>
<td>low-irritant</td>
</tr>
</tbody>
</table>

### Serious eye damage/irritation

<table>
<thead>
<tr>
<th>No</th>
<th>Product Name</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Combsolid</td>
<td>low-irritant</td>
</tr>
</tbody>
</table>

### Respiratory or skin sensitisation

No data available

### Germ cell mutagenicity

No data available

### Reproduction toxicity

No data available

### Carcinogenicity

No data available

### STOT - single exposure

No data available

### STOT - repeated exposure

No data available

### Aspiration hazard

No data available

### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact may cause mechanical irritation through dust particles.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Repeated and prolonged exposure to high dust concentrations may lead to irritation of the respiratory tract.

SECTION 12: Ecological information

12.1 Toxicity
Toxicity to fish (acute)  
No data available.

Toxicity to fish (chronic)  
No data available.

Toxicity to Daphnia (acute)  
No data available.

Toxicity to Daphnia (chronic)  
No data available.

Toxicity to algae (acute)  
No data available.

Toxicity to algae (chronic)  
No data available.

Bacteria toxicity  
No data available.

12.2 Persistence and degradability  
No data available.

12.3 Bioaccumulative potential  
No data available.

12.4 Mobility in soil  
No data available.

12.5 Results of PBT and vPvB assessment  
No data available.

12.6 Other adverse effects  
No data available.

12.7 Other information  
Ecological data are not available.  
Do not let enter the product into drains or waterways and do not store on public depositories.

SECTION 13: Disposal considerations

13.1 Waste treatment methods  
Product  
Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging  
Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN  
The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG  
The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA  
The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information  
No data available.
14.5 **Environmental hazards**
Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 **Special precautions for user**
No data available.

14.7 **Transport in bulk according to Annex II of Marpol and the IBC Code**
Not relevant

**SECTION 15: Regulatory information**

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

**EU regulations**

<table>
<thead>
<tr>
<th>Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REACH candidate list of substances of very high concern (SVHC) for authorisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>This product is not subject to Part 1 or 2 of Annex I.</td>
</tr>
</tbody>
</table>

15.2 **Chemical safety assessment**
No data available.

**SECTION 16: Other information**

**Further information**
Article no. 88600-0008, 100 g

**Sources of key data used to compile the data sheet:**
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

**Department issuing safety data sheet**
UMCO GmbH
Georg-Wilhelm-Str. 187, D-21107 Hamburg
Tel.: +49 40 / 555 546 300  Fax: +49 40 / 555 546 357  e-mail: umco@umco.de

This information is based on our present knowledge and experience.
The safety data sheet describes products with a view to safety requirements.
It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:
Alterations to the previous edition are marked in the left-hand margin.

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