

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** CTA 4  
**Application:** Absorber material for gas treatment  
**Company:** Centrotherm Clean Solutions GmbH & Co. KG  
Johannes-Schmid-Str. 3  
89143 Blaubeuren, Germany  
**Phone:** +49 7344 918 0  
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**Emergency phone number:** +49 7344 918 1600

**2. COMPOSITION / INFORMATION ON INGREDIENTS****Chemical characterization:**

Ingredients	EINECS-No.	CAS-No.	Weight-%	Classification
Copper salt			70 ± 10	Xn; R20/22
Iron oxide	215-168-2	1309-37-1	25 ± 5	
Cellulose	232-674-9	9004-34-6	< 5	
Aluminium oxide	215-691-6	1344-28-1	< 5	
Humidity	n.a.	n.a.	< 10	

**3. HAZARDS IDENTIFICATION**

**R20/22** Harmful by inhalation or if swallowed  
**Causes irritation to skin, eyes and respiratory tract**

#### 4. FIRST AID MEASURES

<b>General Remarks:</b>	If you feel unwell, seek medical advice
<b>Eye contact:</b>	Flush eye with copious amounts of water for at least 15 minutes; get medical attention
<b>Skin contact:</b>	Flush affected area with soap and copious amounts of water
<b>Inhalation:</b>	Remove person to fresh air; get medical attention
<b>Ingestion:</b>	Rinse mouth with plenty of water; get medical attention

#### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	The material itself is noncombustible; use extinguishing media appropriate for surrounding materials
<b>Special firefighting procedures:</b>	None
<b>Unusual fire hazards:</b>	None

#### 6. ACCIDENTAL RELEASE MEASURES

<b>General remark</b>	Avoid generation of dust
<b>Environmental precautions:</b>	Avoid release into drains and the environment
<b>Cleaning procedure:</b>	Pick up (e.g. with a scoop) and place in a suitable container for reclamation or disposal

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Avoid generation of dust; observe personal protective measures and exposure limits
<b>Storage:</b>	Store in a cool, dry area in closed container

**8. EXPOSURE CONTROLES / PERSONAL PROTECTION****Ingredients for which exposure limits at the work place are specified:**

<b>Ingredients</b>	<b>TLV-TWA</b>	<b>Source</b>	<b>Comment</b>
Total dust	10 mg/m <sup>3</sup>	ACGIH	General exposure limit for dust
Respirable dust	5 mg/m <sup>3</sup>	ACGIH	General exposure limit for dust
Copper salt	1 mg/m <sup>3</sup>	ACGIH	Copper and its compounds as dust

**Personal protection:**

General remarks:

General safety measures for handling of chemicals should be followed

Hygienic measures:

Do not eat, drink or smoke, while working with this material; wash your hands thoroughly after finishing work

Respiratory protection:

In case where high dust exposure may exist, the use of a NIOSH approved dust respirator or an air-supplied respirator is advised. Engineering or administrative controls should be implemented to control dust.

Hand protection:

Rubber gloves

Eye protection:

Safety glasses

Protective clothing:

Normal work clothing sufficient

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appereance:**

Form:	Extrudate, 4 mm
Color:	Light brown
Odor:	none

**Additional information:**

Melting point:	> 1200 °C
Boiling point:	n.a.
Flash point:	n.a.

Ignition temperature:	n.a.
Lower explosion limit:	n.a.
Upper explosion limit:	n.a.
Bulk density:	0.9 - 1.0 kg/l
Solubility in water:	several % for long-time contact with excess water
pH-Value:	5 - 7

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under ordinary conditions of use and storage
<b>Hazardous decomposition products:</b>	None
<b>Conditions to avoid:</b>	Contact with incompatible materials
<b>Incompatible materials:</b>	Avoid contact with strong acids and large amounts of hydroxylamine

## 11. TOXICOLOGICAL INFORMATION

<b>Inhalation:</b>	Breathing dust may irritate the nose, throat and mucous membranes of the respiratory tract and cause coughing and chest discomfort. Prolonged inhalation of excessive dust may produce pulmonary disorders
<b>Skin:</b>	Contact with dust may irritate the skin
<b>Eyes:</b>	Contact with dust may irritate the eyes
<b>LD 50 / LC 50 Values:</b>	No information found relating to normal routes of occupational exposure

## 12. ECOLOGICAL INFORMATION

<b>Environmental fate:</b>	When released into the soil or water this material is not expected to biodegrade
<b>Environmental toxicity:</b>	Low hazardous to water

### 13. DISPOSAL CONSIDERATIONS

<b>Product:</b>	Unused product should be managed in an appropriate and approved waste disposal facility in accordance with federal, state and local requirements. Recovery or recycling should be favored over disposal. Spent (contaminated) material may have different hazardous properties than the original material. Ask the supplier for information on appropriate disposal/recycling of spent material.
<b>Container:</b>	Can be reused after emptying and cleaning

### 14. TRANSPORT INFORMATION

<b>By truck:</b>	Not regulated
<b>By sea:</b>	Not regulated
<b>By plane:</b>	Not regulated
<b>General remarks:</b>	Spent (contaminated) material may have different hazardous properties than the original material. After usage the material might be classified as dangerous good for transportation. Contact the supplier in individual cases

### 15. REGULATORY INFORMATION

<b>General remarks:</b>	Compounds of this product are classified and labeled according to EU directives; Compounds of this product are listed on the TSCA Inventory
<b>Hazardous ingredients:</b>	Copper salt
<b>Symbol:</b>	<b>Xn</b> Harmful
<b>R-Phrases:</b>	<b>R20/22</b> Harmful by inhalation or if swallowed
<b>S-Phrases:</b>	<b>S2</b> Keep out of reach of children <b>S22</b> Do not breathe dust <b>S24/25</b> Avoid contact with skin and eyes

## 16. OTHER INFORMATION

Used product may have different hazardous properties than the original material. For that reason this MSDS does not apply for spent (contaminated) material.

The information contained herein is accurate to the best of our knowledge. The MSDS is intended to describe the product for the purpose of health, safety and environmental requirements only. It should therefore not be construed as guarantee of any specific property of the product. The information in the MSDS is intended only as a guide to the appropriate precautionary handling of the material and does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product.