

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product name:** HIGH TEMPERATURE CATALYST

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

**Use of substance / mixture:** PC21: Laboratory chemicals.

### 1.3. Details of the supplier of the safety data sheet

**Company name:** Elemental Microanalysis Ltd  
1 Hameldown Road Okehampton  
Okehampton  
Devon  
EX20 1UB  
United Kingdom  
**Tel:** 44(0)183754446  
**Fax:** 44(0)183754544  
**Email:** [info@microanalysis.co.uk](mailto:info@microanalysis.co.uk)

### 1.4. Emergency telephone number

**Emergency tel:** +44 (0) 7990 767375  
(office hours only)

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Carc. 1Ai: H350i; Skin Sens. 1: H317;  
STOT RE 2: H373

**Most important adverse effects:** May cause an allergic skin reaction. May cause cancer by inhalation. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

### 2.2. Label elements

**Label elements:**

**Hazard statements:** H317: May cause an allergic skin reaction.  
H350i: May cause cancer by inhalation.  
H373: May cause damage to organs through prolonged or repeated exposure.  
H400: Very toxic to aquatic life.  
H410: Very toxic to aquatic life with long lasting effects.

**Hazard pictograms:** GHS07: Exclamation mark

# SAFETY DATA SHEET

## HIGH TEMPERATURE CATALYST

Page: 2

GHS08: Health hazard

GHS09: Environmental



**Signal words:** Danger

**Precautionary statements:** \* P260: Do not breathe dust/fumes/gas/mist/vapours/spray.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352: IF ON SKIN: Wash with plenty of water.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P314: Get medical advice/attention if you feel unwell.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

### 2.3. Other hazards

**Other hazards:** Danger of serious damage to health by prolonged exposure.

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

ALUMINIUM OXIDE - REACH registered number(s): 01-2119529248-35-XXXX

EINECS	CAS	PBT / WEL	CLP Classification	Percent
215-691-6	1344-28-1	Substance with a Community workplace exposure limit.	-	70-90%

COPPER (II) OXIDE.

215-269-1	1317-38-0	-	Acute Tox. 4: H302; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	1-10%
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CHROMIUM (III) OXIDE.

215-160-9	1308-38-9	Substance with a Community workplace exposure limit.	-	1-10%
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NICKEL MONOXIDE

215-215-7	1313-99-1	-	STOT RE 1: H372; Skin Sens. 1: H317; Aquatic Chronic 4: H413; Carc. 1A: H350; Carc. 1Ai: H350i	1-10%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin.

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# SAFETY DATA SHEET

## HIGH TEMPERATURE CATALYST

Page: 3

Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. Consult a doctor.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Delayed effects can be expected after long-term exposure.

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

**Immediate / special treatment:** Not applicable.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Do not attempt to take action without suitable protective clothing - see section 8 of SDS.  
Do not create dust.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Transfer to a closable, labelled salvage container for disposal by an appropriate method. Clean-up should be dealt with only by qualified personnel familiar with the specific substance.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

[cont...]

**SAFETY DATA SHEET**  
HIGH TEMPERATURE CATALYST

Page: 4

**Section 7: Handling and storage**

**7.1. Precautions for safe handling**

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.  
Avoid the formation or spread of dust in the air. Wash hands after working with substance.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed.

**7.3. Specific end use(s)**

**Specific end use(s):** No data available.

**Section 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Hazardous ingredients:**

**ALUMINIUM OXIDE**

**Workplace exposure limits:**

**Respirable dust:**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	10mg/m <sup>3</sup>	-	4mg/m <sup>3</sup>	-

**COPPER (II) OXIDE.**

EU	0.1mg/m <sup>3</sup>	-	-	-
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**CHROMIUM (III) OXIDE.**

EU	2mg/m <sup>3</sup>	-	-	-
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**DNEL/PNEC Values**

**Hazardous ingredients:**

**COPPER (II) OXIDE.**

Type	Exposure	Value	Population	Effect
PNEC	Fresh water	7.8	-	-
PNEC	Marine water	5.2	-	-
PNEC	Microorganisms in sewage treatment	230	-	-

**8.2. Exposure controls**

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency. Respiratory protective device with particle filter.

**Hand protection:** \* Impermeable gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

[cont...]

**SAFETY DATA SHEET**  
HIGH TEMPERATURE CATALYST

Page: 5

**Skin protection:** \* Impermeable protective clothing.

**Section 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**State:** Granules

**Colour:** Dark grey

**Odour:** Odourless

**Evaporation rate:** No data available.

**Oxidising:** No data available.

**Solubility in water:** No data available.

**Viscosity:** No data available.

**Boiling point/range°C:** No data available.

**Melting point/range°C:** No data available.

**Flammability limits %: lower:** No data available.

**upper:** No data available.

**Flash point°C:** No data available.

**Part.coeff. n-octanol/water:** No data available.

**Autoflammability°C:** No data available.

**Vapour pressure:** No data available.

**Relative density:** No data available.

**pH:** No data available.

**VOC g/l:** No data available.

**9.2. Other information**

**Other information:** No data available.

**Section 10: Stability and reactivity**

**10.1. Reactivity**

**Reactivity:** Stable under recommended transport or storage conditions.

**10.2. Chemical stability**

**Chemical stability:** Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

**10.4. Conditions to avoid**

**Conditions to avoid:** Heat. Hot surfaces. Flames.

**10.5. Incompatible materials**

**Materials to avoid:** Strong oxidising agents. Strong acids.

**10.6. Hazardous decomposition products**

**Haz. decomp. products:** In combustion emits toxic fumes.

**Section 11: Toxicological information**

[cont...]

**SAFETY DATA SHEET**  
HIGH TEMPERATURE CATALYST

Page: 6

**11.1. Information on toxicological effects**

**Hazardous ingredients:**

**ALUMINIUM OXIDE**

ORAL	RAT	LD50	10000	mg/kg
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**COPPER (II) OXIDE.**

ORAL	RAT	LD50	470	mg/kg
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**CHROMIUM (III) OXIDE.**

ORAL	RAT	LD50	10000	mg/kg
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**NICKEL MONOXIDE**

ORAL	RAT	LD50	11000	mg/kg
SUBCUTANEOUS	MUS	LD50	50	mg/kg

**Relevant hazards for product:**

Hazard	Route	Basis
Respiratory/skin sensitisation	DRM	Hazardous: calculated
Carcinogenicity	--	Hazardous: calculated
STOT-repeated exposure	-	Hazardous: calculated

**Symptoms / routes of exposure**

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Delayed effects can be expected after long-term exposure.

**Section 12: Ecological information**

**12.1. Toxicity**

**Hazardous ingredients:**

**COPPER (II) OXIDE.**

Daphnia magna	48H EC50	0.0110	mg/l
FISH	96H LC50	25.4	mg/l

**12.2. Persistence and degradability**

**Persistence and degradability:** \* No data available.

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**SAFETY DATA SHEET**  
HIGH TEMPERATURE CATALYST

Page: 7

**12.3. Bioaccumulative potential**

**Bioaccumulative potential:** \* No data available.

**12.4. Mobility in soil**

**Mobility:** No data available.

**12.5. Results of PBT and vPvB assessment**

**PBT identification:** This product is not identified as a PBT/vPvB substance.

**12.6. Other adverse effects**

**Other adverse effects:** \* No data available.

**Section 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**Section 14: Transport information**

**14.1. UN number**

**UN number:** UN3077

**14.2. UN proper shipping name**

**Shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

**14.3. Transport hazard class(es)**

**Transport class:** 9

**14.4. Packing group**

**Packing group:** III

**14.5. Environmental hazards**

**Environmentally hazardous:** Yes

**Marine pollutant:** No

**14.6. Special precautions for user**

**Special precautions:** No special precautions.

**Tunnel code:** E

**Transport category:** 3

**Section 15: Regulatory information**

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

**Specific regulations:** Not applicable.

[cont...]

**SAFETY DATA SHEET**  
HIGH TEMPERATURE CATALYST

Page: 8

**15.2. Chemical Safety Assessment**

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

**Section 16: Other information**

**Other information**

**Other information:** according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

This safety data sheet is prepared in accordance with Commission Regulation (EC) No 1272/2008.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** H302: Harmful if swallowed.

H317: May cause an allergic skin reaction.

H350i: May cause cancer by inhalation.

H372: Causes damage to organs through prolonged or repeated exposure.

H373: May cause damage to organs through prolonged or repeated exposure.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

H413: May cause long lasting harmful effects to aquatic life.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.