

According to REACH Regulations (EC) 1907/2006 and (EU) 2020/878

## 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product code : GX5303  
Product name : Cadmium oxide, 99.999%  
CAS number : 1306-19-0  
Physical form : solid, substance  
REACH : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

PC21: Laboratory chemicals.

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

Company name	: Glenthams Life Sciences Ltd	Telephone	: +44 (0) 1225 667 798
	Unit 5 Leafield Way	Fax	: +44 (0) 2033 978 909
	Corsham SN13 9SW	Email	: <a href="mailto:info@glenthams.com">info@glenthams.com</a>
	United Kingdom	Web	: <a href="http://www.glenthams.com">www.glenthams.com</a>

### 1.4 Emergency telephone number

Emergency telephone : NHS Direct 111 (UK, 24 hours), 112 (EU, 24 Hours), +44 (0) 1225 667 798 (09.00 – 17.00 GMT) number

## 2. Hazards identification

### 2.1 Classification of the substance or mixture

Classification under CLP according to (EC) 1272/2008

H300	Acute Tox. 2
H341	Muta. 2
H350	Carc. 1B
H361	Repr. 2
H372	STOT RE 1
H400	Aquatic Acute 1
H410	Aquatic Chronic 1

### 2.2 Label elements

Label elements under CLP according to (EC) 1272/2008

#### Pictograms



GHS06 GHS08 GHS09

#### Signal words

Danger

#### Hazard statements

H300	Fatal if swallowed
H341	Suspected of causing genetic defects
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

#### Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER or doctor/physician.

### 2.3 Other hazards

#### PBT

This substance is not identified as a PBT substance.

### 3.0 Composition/information on ingredients

#### 3.1 Substances

Name	Identifier	%	Classification
Cadmium oxide, 99.999%	CAS: 1306-19-0 EC: REACH: Not applicable	99.999%	H300, Acute Tox. 2 H341, Muta. 2 H350, Carc. 1B H361, Repr. 2 H372, STOT RE 1 H400, Aquatic Acute 1 H410, Aquatic Chronic 1

### 4. First aid measures

#### 4.1 Description of first aid measures

Skin contact	Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Remove all contaminated clothes and footwear immediately unless stuck to skin. Transfer to hospital if there are burns or symptoms of poisoning.
Eye contact	Transfer to hospital for specialist examination. Bathe the eye with running water for 15 minutes.
Ingestion	Do not induce vomiting. If conscious, give half a litre of water to drink immediately. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. Transfer to hospital as soon as possible. Wash out mouth with water.
Inhalation	If breathing becomes bubbly, have the casualty sit and provide oxygen if available. If conscious, ensure the casualty sits or lies down. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. Transfer to hospital as soon as possible. Remove casualty from exposure ensuring one's own safety whilst doing so.

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

Skin contact	Absorption through the skin may be fatal. Irritation or pain may occur at the site of contact. There may be redness or whiteness of the skin in the area of exposure.
Eye contact	The eyes may water profusely. There may be severe pain.
Ingestion	Convulsions may occur. There may be loss of consciousness. There may be soreness and redness of the mouth and throat. There may be vomiting.
Inhalation	Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. There may be loss of consciousness. There may be shortness of breath with a burning sensation in the throat. There may be vomiting.
Delayed / immediate effects	Convulsions may occur. Immediate effects can be expected after short-term exposure. There may be loss of consciousness.

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

##### Immediate / special treatment

Do not induce vomiting. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

### 5. Fire-fighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

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

##### Exposure hazards

In combustion emits toxic fumes. Toxic.

### 5.3 Advice for fire-fighters

Wear protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus.

## 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. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Notify the police and fire brigade immediately.

### 6.2 Environmental precautions

Do not discharge into drains or rivers.

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

#### Clean-up procedures

Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Absorb into dry earth or sand.

### 6.4 Reference to other sections

Refer to section 8 of SDS.

## 7. Handling and storage

### 7.1 Precautions for safe handling

#### Handling requirements

Avoid direct contact with the substance. Avoid the formation or spread of dust in the air. Ensure there is exhaust ventilation of the area.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage conditions

Avoid contact with water or humidity. Keep container tightly closed. Store in cool, well ventilated area.

### 7.3 Specific end use(s)

No data available.

## 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Workplace exposure limits

Substance (CAS)	Control Parameter	Value	Notes	Source
Cadmium oxide fume (as Cd) (1306-19-0)	Long-term Exposure Limit (mg m <sup>-3</sup> )	0.025	Carc	UK HSE EH40/2005
	Short-term Exposure Limit (mg m <sup>-3</sup> )	0.05		

### 8.2 Exposure controls

Engineering measures	Ensure there is exhaust ventilation of the area.
Respiratory protection	Particle filter class P1 (EN143). Respiratory protective device with particle filter. Self- contained breathing apparatus must be available in case of emergency.
Hand protection	Impermeable gloves.
Eye protection	Safety glasses with side-shields. Ensure eye bath is to hand.
Skin protection	Protective clothing.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	Solid
Colour	Brown
Odour	No data available.
Melting point/Freezing point	1230 °C
Boiling point/initial boiling point/boiling range	No data available.
Flammability	No data available.
Lower/Upper explosion limit	No data available.
Flash Point	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	2.1 mg/L @ 20 °C
Partition coefficient n-octanol/water	No data available.
Vapour pressure	No data available.
Density/relative density	8.150
Relative vapour pressure	No data available.
Particle characteristics	No data available.

### 9.2 Other information

No data available.

## 10. Stability and reactivity

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

#### Hazardous reactions

Decomposition may occur on exposure to conditions or materials listed below. Hazardous reactions will not occur under normal transport or storage conditions.

### 10.4 Conditions to avoid

Heat.

### 10.5 Incompatible materials

#### Materials to avoid

Strong acids. Strong oxidising agents.

## 11. Toxicological information

### 11.1 Information on toxicological effects

#### a) Acute toxicity

##### Cadmium oxide fume (as Cd)

2 hr LC50 Mouse (Inhalation): 250 mg/m3

10 min LC50 Rat (Inhalation): 780 mg/m3

LD50 Rat (IP): 12 mg/kg

LD50 Rat (Oral): 72 mg/kg

#### b) Skin corrosion/irritation

No data available.

#### c) Serious eye damage/irritation

No data available.

#### d) Respiratory or skin sensitisation

No data available.

#### e) Germ cell mutagenicity

Germ cell mutagenicity (Category 2)

#### f) Carcinogenicity

Carcinogenicity (Category 1B)  
Cadmium oxide fume (as Cd): Carcinogenic (ECHA Property of Concern)

g) **Reproductive toxicity**

Reproductive toxicity (Category 2)

h) **STOT-single exposure**

No data available.

i) **STOT-repeated exposure**

Specific target organ toxicity, repeated exposure (Category 1)

j) **Aspiration hazard**

No data available.

**Symptoms / routes of exposure**

<b>Skin contact</b>	Absorption through the skin may be fatal. Irritation or pain may occur at the site of contact. There may be redness or whiteness of the skin in the area of exposure.
<b>Eye contact</b>	The eyes may water profusely. There may be severe pain.
<b>Ingestion</b>	Convulsions may occur. There may be loss of consciousness. There may be soreness and redness of the mouth and throat. There may be vomiting.
<b>Inhalation</b>	Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. There may be loss of consciousness. There may be shortness of breath with a burning sensation in the throat. There may be vomiting.
<b>Delayed / immediate effects</b>	Convulsions may occur. Immediate effects can be expected after short-term exposure. There may be loss of consciousness.
<b>Other information</b>	No data available.

11.2 **Information on other hazards**

11.2.1 **Endocrine disrupting properties**

This product does not contain known or suspected endocrine disruptors according to REACH or relevant EU Regulations.

11.2.2 **Other information**

No additional information

12. **Ecological information**

12.1 **Toxicity**

No data available.

12.2 **Persistence and degradability**

Biodegradable.

12.3 **Bioaccumulative potential**

No bioaccumulation potential.

12.4 **Mobility in soil**

Readily absorbed into soil.

12.5 **Results of PBT and vPvB assessment**

This substance is not identified as a PBT substance.

12.6 **Endocrine disrupting properties**

This substance is not identified as having endocrine disrupting properties

12.7 **Other adverse effects**

No data available.

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.

### 14. Transport information

This product does not require a classification for transport.

### 15. Regulatory information

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

This Safety Data Sheet is prepared in accordance with Commission Regulation (EC) 1907/2006, amended by Commission Regulation (EU) 2020/878.

#### Authorisations/Restrictions

Regulation (EC) 1907/2006, REACH, Annex XIV list of substances subject to authorisation:	No data available.
Regulation (EC) 1907/2006, REACH, Annex XVII restrictions on the manufacture, placing on the market and use of certain dangerous substances:	13 Jan 2016, Entry No.: 23
Regulation (EC) 1005/2009 on substances that deplete the ozone layer:	No data available.
Regulation (EC) 850/2004 on persistent organic pollutants, amended by (EU) No 2019/1021:	No data available.

#### 15.2 Chemical safety assessment

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

### 16. Other information

#### H-Statement Full Texts

H300	Fatal if swallowed
H341	Suspected of causing genetic defects
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

#### Abbreviations Full Texts

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ALARP	As low as is reasonably practicable
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging Regulations
COSHH	Control of Substances Hazardous to Health
EC Number	European Community Number
EC50	Effective Concentration 50%
EILINCS	European List of Notified Chemical Substances
EINECS	European Inventory of Existing Commercial Chemical Substances
GHS	Globally Harmonised System
HSE	Health & Safety Executive UK
IATA	International Air Transport Association
IM	Intramuscular
IMDG	The International Maritime Dangerous Goods Code
IP	Intraperitoneal
IV	Intravascular
LD50	Lethal Dose 50%
LOEC	Lowest Observable Effective Concentration
LTEL	Long Term Exposure Limit
NOEC	No Observable Effective Concentration
OECD	Organisation for Economic Cooperations and Development
PBT	Persistent Bioaccumulative Toxic
PPE	Personal Protective Equipment

REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail
SC	Subcutaneous
SDS	Safety Data Sheet
STEL	Short Term Exposure Limit
STOT	Specific Target Organ Toxicity
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
WEL	Workplace Exposure Limits

**This Safety Data Sheet is prepared in accordance with Commission Regulation (EC) 1907/2006, amended by Commission Regulation (EU) 2020/878.**

Disclaimer: Glentham Life Sciences shall not be held liable for any damage resulting from handling or from contact with the above product. 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 document does not guarantee the properties or quality of the product.

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