

Revision: 1.1

Revision date:

16 April 2021

Date printed:

03 February 2023

## Section 1. Identification

### 1.1 Product Identifier 1673

Product Name BARIUM OXIDE ANHYDROUS tech.

CAS Number 1304-28-5

REACH Registration No A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

Molecular Formula BaO = 153.326

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

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

### 1.3 Supplier Vickers Laboratories Ltd



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LS28 6QW  
UNITED KINGDOM

Phone 44 0113 2362811  
Fax +44(0)113 2362703  
Email safety@viclabs.co.uk  
Website www.viclabs.co.uk

### 1.4 Emergency Telephone (08:00-16:30) +44(0) 113 2362811 (24hr) 112 (Have this document to hand)

## Section 2. Hazards Identification

### 2.1 Classification of the substance or mixture

#### Classification according to regulation 1272/2008/EC

Acute toxicity, category 4 (oral) H302: Harmful if swallowed.  
Acute toxicity, category 4 (inhalation) H332: Harmful if inhaled.

### 2.2 Label elements

#### Labelling according to regulation 1272/2008/EC

Signal word Warning

Hazard Pictograms



Hazard Statements Harmful if swallowed. Harmful if inhaled.

Precautionary Statements Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves / protective clothing / eye protection / face protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

## Section 3. Composition

### 3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Barium oxide anhydrous	1304-28-5	215-127-9		>98%	Acute Tox. 4 (O), Acute Tox. 4 (I)

## Section 4. First Aid

### 4.1 Description of first aid measures

Eyes Flush with water for at least 15 minutes and contact physician.  
Skin Thoroughly wash off skin with soap and water.  
Inhalation Remove from exposure. Keep warm and at rest. Seek medical attention if irritation persists.  
Ingestion Wash out the patients mouth thoroughly with water.  
Personal protection for first aiders Wear protective gloves / eye protection.

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

No further relevant information available.

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

No further relevant information available.

## Section 5. Fire Fighting

### 5.1 Extinguishing media

Extinguishing Media Consider what other flammable materials are present and act accordingly.  
Unsuitable Media Do not use carbon dioxide.

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

Hazards Presents no specific fire danger.

### 5.3 Advice for firefighters

Advice for firefighters Fire-fighters should wear protective clothing and breathing apparatus.

## Section 6. Accidental Release Measures

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

Personal Protection Use approved personal protective equipment. Avoid breathing dust.

### 6.2 Environmental precautions

Environmental Keep material out of sewers, storm drains, surface waters and soil.

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

Major Spillage Sweep up and transfer to a suitable container for disposal. Wash area down with copious amounts of water.  
Minor Spillage Sweep up and transfer to a suitable container for disposal. Wash area down with copious amounts of water.

### 6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

## Section 7. Storage & Handling

### 7.1 Precautions for safe handling

Avoid the formation or spread of dust in the air.

Ensure Local Exhaust Ventilation maintains dust concentrations to a minimum.

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

Well ventilated, cool, dry storage . Keep well protected from ingress of water and well separated from acids

### 7.3 Specific end use(s)

See section 1.2.

## Section 8. Workplace Exposure & Personal Protection

### 8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits	
			Long Term (8hr TWA)	Short Term 15min period)
Barium oxide anhydrous	1304-28-5	>98%	-	-

Exposure data source(s) No occupational exposure data currently available.

### 8.2 Exposure controls

Respiratory Protection Use L.E.V. or natural ventilation to reduce dust concentrations to a minimum.

Hand Protection Wear gloves.

Eye Protection Use safety glasses with side shields.

Skin Protection If skin contact or contamination of clothing is likely, protective clothing must be worn.

Special Hazards No special precautions required.

## Section 9. Physical & Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance	White powder.
Odour	Odourless.
pH	Not applicable
Boiling Point	Not applicable
Melting Point	1923°C
Flash Point	Not applicable
Upper Flammable Limit	Not applicable
Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	5.7200
Water Solubility	Reacts exothermically with water.

### 9.2 Other information

No data available.

## Section 10. Stability & Reactivity

10.1 Reactivity No data available.

10.2 Chemical Stability Stable under normal conditions

<b>10.3</b>	Possibility of hazardous reactions	No data available.
<b>10.4</b>	Conditions to Avoid	Avoid ingress of water and contact with acids.
<b>10.5</b>	Incompatible Materials	Air, Carbon Dioxide, Acid Chlorides, Acid Anhydrides, Reducing Agents.
<b>10.6</b>	Hazardous Decomposition Products	Not determined.

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

Eyes	Contact with the solid or dust may be irritating to the eyes.
Skin	Contact with the solid or dust may be irritating to the skin.
LD50 Skin	Not available
Ingestion	Harmful if swallowed.
LD50 Oral	Not available
Inhalation	Harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.
Other Information	To the best of our knowledge, the chemical, physical, & toxicological properties have not been thoroughly investigated.

## Section 12. Ecological

<b>12.1</b>	Toxicity	No environmental hazard is anticipated provided that the material is handled and disposed of with due care and attention.
	LC50 Algal	Not available
	LC50 Crustacea	Not available
	LC50 Fish	Not available
<b>12.2</b>	Persistence and degradability	No data available.
<b>12.3</b>	Bioaccumulative potential	No data available.
<b>12.4</b>	Mobility in soil	No data available.
<b>12.5</b>	Results of PBT & vPvB assessment	Assessment not required.
<b>12.6</b>	Other adverse effects	None known at present.

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

Disposal Methods	Dispose of to a licensed land fill site.
Contaminated Packaging	Wash out containers with water. Dispose of to a licensed land fill site.

## Section 14. Transport Information

<b>14.1 UN Number</b>	1884
<b>14.2 Proper Shipping Name</b>	Barium oxide
<b>14.3 Transport classes</b>	
UN classification	6.1
Subsidiary hazard(s)	None
Transport category	2
ADR Hazard ID	60
Tunnel Restriction Code	E
<b>14.4 Packing Group</b>	III
<b>14.5 Environment hazards</b>	See section 12.
<b>14.6 Special precautions for user</b>	No special precautions required.
<b>14.7 Transport in bulk</b>	Not transported in bulk.



## Section 15. Regulatory Information

### 15.1 Safety, health and environment regulations specific for substance/mixture.

#### Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Acute toxicity, category 4 (oral); Acute toxicity, category 4 (inhalation)

Signal word Warning

Hazard Pictograms



Hazard Statements H302, H332  
Harmful if swallowed. Harmful if inhaled.

Precautionary Statements P264, P270, P280, P301+P330+P331, P303+P361+P353, P305+P351+P338  
Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves / protective clothing / eye protection / face protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

### 15.2 Chemical safety assessment

Assessment not required.

## Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

Revision number: 1.1 (Supersedes revision 1.0)

Revision date: 16 April 2021

Reviewed by chemist: 16 April 2021

Printed date: 03 February 2023

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