

Revision: 1.1

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Section 1. Identification

1.1 Product Identifier 0418

Product Name	MERCURY (II) OXIDE RED pure
CAS Number	21908-53-2
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	HgO = 216.59

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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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 1 (dermal)	H310: Fatal in contact with skin.
Acute toxicity, category 2 (oral)	H300: Fatal if swallowed.
Acute toxicity, category 2 (inhalation)	H330: Fatal if inhaled.
Spec target organ tox - repeat, category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Hazard to aquatic environment, category 1	H400: Very toxic to aquatic life.
Hazard to aquatic environment, category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms



Hazard Statements Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

Precautionary Statements Do not breathe dust. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Mercuric oxide	21908-53-2	244-654-7		>99%	Acute Tox. 1 (D), Acute Tox. 2 (O), Acute Tox. 2 (I), STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. Unless contact has been slight OBTAIN MEDICAL ATTENTION
Skin	Wash off skin thoroughly with water. OBTAIN MEDICAL ATTENTION.
Inhalation	Remove from exposure. Keep warm and at rest. OBTAIN MEDICAL ATTENTION.
Ingestion	Wash out the patients mouth thoroughly with water. OBTAIN MEDICAL ATTENTION URGENTLY.
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. Use water spray to keep fire exposed containers cool.
Unsuitable Media	Nothing specified.

5.2 Special hazards arising from the substance or mixture

Hazards	May evolve toxic fumes if involved in a fire.
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5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.
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Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Avoid breathing vapour. Evacuate area immediately. Use approved personal protective equipment. Do not allow other people to enter area. Do not allow general use of area until it is safe to do so.
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6.2 Environmental precautions

Environmental Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

6.3 Methods and material for containment and cleaning up

Major Spillage Vacuum up into container for removal. Carefully remove material from vacuum cleaner and transfer to sealable container for disposal. Carry out this operation under fume extraction. Wash area down with copious amounts of water.

Minor Spillage Vacuum up into container for removal. Carefully remove material from vacuum cleaner and transfer to sealable container for disposal. Carry out this operation under fume extraction. 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 contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains dust concentrations to a minimum.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage .

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
Mercuric oxide	21908-53-2	>99%	-	0.1 ppm

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

Respiratory Protection Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge respirator, or use self contained breathing apparatus.

Hand Protection Wear gloves.

Eye Protection Use tightly fitting chemical splash proof glasses or goggles.

Skin Protection Avoid contact with skin.

Special Hazards No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Bright red, orange or yellow powder.
Odour	No specific odour.
pH	Not applicable
Boiling Point	Not available
Melting Point	500°C
Flash Point	Not applicable
Upper Flammable Limit	Not applicable
Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	Can form explosive dust clouds.

Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	11.4000
Water Solubility	Practically insoluble in 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
10.3 Possibility of hazardous reactions	No data available.
10.4 Conditions to Avoid	Exposure to light.
10.5 Incompatible Materials	Forms explosive compounds with ammonia, acetylenic compounds, azides and ethylene oxide. Oxidising and reducing agents.
10.6 Hazardous Decomposition Products	Decomposes to emit highly toxic fumes of mercury.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Contact with the solid or solution may be irritating to the eyes.
Skin	Contact with the solid or solution may be irritating to the skin. Very toxic in contact with skin.
LD50 Skin	315mg/kg Rat
Ingestion	Toxic if swallowed. Chronic poisoning leads inflammation of mouth and gums, excessive salivation, loosening of teeth, kidney damage, muscle tremors, jerky gait, and spasms of extremities. Personality changes may occur including, depression, irritability and nervousness.
LD50 Oral	18mg/kg Rat
Inhalation	Very toxic by inhalation.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Has been found to cause cancer in laboratory animals.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.

Section 12. Ecological

12.1 Toxicity	Mercury and its compounds are highly toxic to the environment. Very Toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment.
LC50 Algal	Not available
LC50 Crustacea	Not available
LC50 Fish	Not 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 & vPvB assessment	Assessment not required.
12.6 Other adverse effects	None known at present.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal Methods	Add a mixture of equal amounts of slaked lime (calcium hydroxide) and flowers of sulphur wetted with enough water to form a thin paste prior to disposal via an authorised toxic waste service.
Contaminated Packaging	Use a licensed waste disposer.

Section 14. Transport Information


14.1 UN Number	1641
14.2 Proper Shipping Name	Mercury oxide
14.3 Transport classes	
UN classification	6.1
Subsidiary hazard(s)	None
Transport category	2
ADR Hazard ID	60
Tunnel Restriction Code	D/E
14.4 Packing Group	II
14.5 Environment hazards	See section 12.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	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 1 (dermal); Acute toxicity, category 2 (oral); Acute toxicity, category 2 (inhalation); Spec target organ tox - repeat, category 2; Hazard to aquatic environment, category 1; Hazard to aquatic environment, category 1
Signal word	Danger
Hazard Pictograms	
Hazard Statements	H300, H310, H330, H373, H410 Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.
Hazard Statements (Packs of 100ml/g or less)	H300+H310+H330, H373, H410 Fatal if swallowed, inhaled and in contact with skin. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.
Precautionary Statements	P260, P301+P310, P361 Do not breathe dust. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing.
Precautionary Statements (Packs of 100ml/g or less)	P260, P301+P310 Do not breathe dust. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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.

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