

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 SDS Reference Number: 04582

Issue date: 4/9/2015 Revision date: 11/16/2022 Supersedes version of: 4/9/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance

Trade name : MERCURIC OXIDE YELLOW AR

 IUPAC name
 : Mercury (II) oxide

 EC Index-No.
 : 080-002-00-6

 EC-No.
 : 244-654-7

 CAS-No.
 : 21908-53-2

 Product code
 : 04582

 Formula
 : HgO

Chemical structure

Hg**—**O

Synonyms : Mercuric oxide Yellow

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

Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.

107 Wode House Road, Jehangir Villa, Colaba

400005 Mumbai

INDIA

T +91 22 6663 6663, F +91 22 6663 6699

info@lobachemie.com, www.lobachemie.com

1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 2 H300
Acute toxicity (dermal), Category 1 H310
Acute toxicity (inhal.), Category 2 H330
Specific target organ toxicity – Repeated exposure, Category 2 H373
Hazardous to the aquatic environment – Chronic Hazard, H410

Category 1

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

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

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS06





GHS08 GHS09

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Signal word (CLP) : Danger

Hazard statements (CLP) : H300+H310+H330 - Fatal if swallowed, in contact with skin or if inhaled.

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

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

Precautionary statements (CLP) : P260 - Do not breathe dust, mist, spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P273 - Avoid release to the environment.

P280 - Wear protective clothing, eye protection, face protection, protective gloves.

P284 - Wear respiratory protection.

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%
MERCURIC OXIDE YELLOW	CAS-No.: 21908-53-2 EC-No.: 244-654-7 EC Index-No.: 080-002-00-6	100

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial

respiration if necessary. If you feel unwell, seek medical advice. Call a physician

immediately. Call a doctor.

First-aid measures after skin contact : Immediately call a POISON CENTER/doctor. Specific measures (see supplemental first aid

instruction on this label). Gently wash with plenty of soap and water. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Wash skin with plenty

of water. Call a physician immediately.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with

water for several minutes. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Immediately call a POISON CENTER/doctor. Specific treatment (see

supplemental first aid instruction on this label). Call a physician immediately.

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

Symptoms/effects : There are potential chronic health effects to consider.

Symptoms/effects after skin contact : Fatal in contact with skin. Symptoms/effects after ingestion : Fatal if swallowed.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel. Do not breathe dust, mist, spray. Only qualified

personnel equipped with suitable protective equipment may intervene.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Use personal protective

equipment as required. For further information refer to section 8: "Exposure

controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not breathe dust, mist, spray. Wear personal

protective equipment. Use only outdoors or in a well-ventilated area.

Hygiene measures : Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when

using this product. Wash contaminated clothing before reuse. Always wash hands after

handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

MERCURIC OXIDE YELLOW AR (21908-53-2)

EU - Indicative Occupational Exposure Limit (IOEL)

Local name Mercuric oxide

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MERCURIC OXIDE YELLOW AR (21908-53-2)		
Regulatory reference	COMMISSION DIRECTIVE 2009/161/EU	
EU - Biological Limit Value (BLV)		
Local name	Mercuric oxide	
BLV	10 μg/l Parameter: Hg - Medium: blood 30 μg/g creatinine Parameter: Hg - Medium: urine	
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs	
Spain - Occupational Exposure Limits		
Local name	Óxido de mercurio II	
VLA-ED (OEL TWA)	0.02 mg/m³ como Hg	
Remark	Hg (El mercurio es una sustancia con efectos sanitarios acumulativos posiblemente graves. En consecuencia, la evaluación de la exposición debería complementarse con una vigilancia sanitaria con control biológico de acuerdo con el artículo 6 del RD 374/2001), r (Esta sustancia tiene establecidas restricciones a la fabricación, la comercialización o el uso en los términos especificados en el "Reglamento (CE) nº 1907/2006 sobre Registro, Evaluación, Autorización y Restricción de sustancias y preparados químicos" (REACH) de 18 de diciembre de 2006 (DOUE L 369 de 30 de diciembre de 2006). Las restricciones de una sustancia pueden aplicarse a todos los usos o sólo a usos concretos. El anexo XVII del Reglamento REACH contiene la lista de todas las sustancias restringidas y especifica los usos que se han restringido), VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo), VLB® (Agente químico que tiene Valor Límite Biológico).	
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2022. INSHT	

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment symbol(s):







Eye and face protection

Eye protection:

Chemical goggles or safety glasses

Skin protection

Skin and body protection:

Wear a mask

Hand protection:

Protective gloves

Respiratory protection

Respiratory protection:

Wear appropriate mask. [In case of inadequate ventilation] wear respiratory protection.

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Colour : Yellowish orange.

Appearance Powder. Molecular mass 216.69 g/mol Odour Odourless. Odour threshold : Not available Melting point 500 °C Freezing point : Not applicable Boiling point : Not available : Non flammable. Flammability Lower explosion limit : Not applicable Upper explosion limit : Not applicable : Not applicable Flash point Auto-ignition temperature : Not applicable

pH solution concentration : 5 %

Viscosity, kinematic : Not applicable Solubility : Water: Insoluble Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure : Not available Vapour pressure at 50°C : Not available Density : 11.14 g/cm3 at 20°C Relative density : Not available Relative vapour density at 20°C : Not applicable : Not available Particle size

: Not available

: ≈ 8 at 20°C

9.2. Other information

Decomposition temperature

рΗ

Other safety characteristics

Relative evaporation rate (butylacetate=1) : 0.6

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Air contact. Moisture.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Fatal if swallowed. Acute toxicity (dermal) Fatal in contact with skin.

Acute toxicity (inhalation) : Fatal if inhaled. Skin corrosion/irritation : Not classified pH: ≈ 8 at 20°C

: Not classified

Serious eye damage/irritation pH: ≈ 8 at 20°C

Respiratory or skin sensitisation : Not classified Germ cell mutagenicity Not classified Carcinogenicity : Not classified Reproductive toxicity : Not classified STOT-single exposure : Not classified

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

Additional information : There are potential chronic health effects to consider

Aspiration hazard Not classified

MERCURIC OXIDE YELLOW AR (21908-53-2)

Viscosity, kinematic Not applicable

11.2. Information on other hazards

Other information

Potential adverse human health effects and

symptoms

: Fatal if swallowed, Fatal in contact with skin.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life with long lasting effects. Ecology - water

: Not classified

Hazardous to the aquatic environment, short-term

Hazardous to the aquatic environment, long-term

(chronic)

: Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

MERCURIC OXIDE YELLOW AR (21908-53-2)

Rapidly degradable Persistence and degradability

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

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12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance

with local, regional, national and/or international regulation.

Ecological information : Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

 UN-No. (ADR)
 : UN 1641

 UN-No. (IMDG)
 : UN 1641

 UN-No. (IATA)
 : UN 1641

 UN-No. (ADN)
 : UN 1641

 UN-No. (RID)
 : UN 1641

14.2. UN proper shipping name

Proper Shipping Name (ADR) : MERCURY OXIDE
Proper Shipping Name (IMDG) : MERCURY OXIDE
Proper Shipping Name (IATA) : Mercury oxide
Proper Shipping Name (ADN) : MERCURY OXIDE
Proper Shipping Name (RID) : MERCURY OXIDE

Transport document description (ADR) : UN 1641 MERCURY OXIDE, 6.1, II, (D/E)

Transport document description (IMDG) : UN 1641 MERCURY OXIDE, 6.1, II, MARINE POLLUTANT/ENVIRONMENTALLY

HAZARDOUS

Transport document description (IATA) : UN 1641 Mercury oxide, 6.1, II, ENVIRONMENTALLY HAZARDOUS

Transport document description (ADN) : UN 1641 MERCURY OXIDE, 6.1, II, ENVIRONMENTALLY HAZARDOUS

Transport document description (RID) : UN 1641 MERCURY OXIDE, 6.1, II, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 6.1
Danger labels (ADR) : 6.1

.



IMDG

Transport hazard class(es) (IMDG) : 6.1 Danger labels (IMDG) : 6.1

: 6. .



IATA

Transport hazard class(es) (IATA) : 6.1
Danger labels (IATA) : 6.1

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ADN

Transport hazard class(es) (ADN) : 6.1 Danger labels (ADN) : 6.1



RID

Transport hazard class(es) (RID) : 6.1
Danger labels (RID) : 6.1





14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-A

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : T5
Limited quantities (ADR) : 500g
Excepted quantities (ADR) : E4

Packing instructions (ADR) : P002, IBC08

Special packing provisions (ADR) : B4
Mixed packing provisions (ADR) : MP10
Portable tank and bulk container instructions (ADR) : T3
Portable tank and bulk container special provisions : TP33

(ADR)

Tank code (ADR) : SGAH
Tank special provisions (ADR) : TU15, TE19

Vehicle for tank carriage : AT
Transport category (ADR) : 2
Special provisions for carriage - Packages (ADR) : V11
Special provisions for carriage - Loading, unloading : CV13, CV28

and handling (ADR)

Special provisions for carriage - Operation (ADR) : S9, S19 Hazard identification number (Kemler No.) : 60

Orange plates :



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Tunnel restriction code (ADR) : D/E EAC code : 2X

Transport by sea

Limited quantities (IMDG) : 500 g Excepted quantities (IMDG) E4 Packing instructions (IMDG) P002 IBC packing instructions (IMDG) IBC08 IBC special provisions (IMDG) : B21, B4 Tank instructions (IMDG) Т3 Tank special provisions (IMDG) TP33 Stowage category (IMDG) Α

Segregation (IMDG) : SGG7, SGG11

Properties and observations (IMDG) : Orange powder. Insoluble in water. Toxic if swallowed, by skin contact or by dust inhalation.

MFAG-No : 151

Air transport

PCA Excepted quantities (IATA) : E4 PCA Limited quantities (IATA) : Y644 PCA limited quantity max net quantity (IATA) : 1kg PCA packing instructions (IATA) 669 PCA max net quantity (IATA) 25kg CAO packing instructions (IATA) : 676 CAO max net quantity (IATA) : 100kg ERG code (IATA) 6L

Inland waterway transport

Classification code (ADN) : T5

Special provisions (ADN) : 802

Limited quantities (ADN) : 500 g

Excepted quantities (ADN) : E4

Equipment required (ADN) : PP, EP

Number of blue cones/lights (ADN) : 2

Rail transport

Classification code (RID) : T5
Limited quantities (RID) : 500g
Excepted quantities (RID) : E4
Packing instructions (RID) : P002, IBC08

Special packing provisions (RID) : B4
Mixed packing provisions (RID) : MP10
Portable tank and bulk container instructions (RID) : T3
Portable tank and bulk container special provisions : TP33

(RID)

Tank codes for RID tanks (RID) : SGAH
Special provisions for RID tanks (RID) : TU15
Transport category (RID) : 2
Special provisions for carriage – Packages (RID) : W11

Special provisions for carriage - Loading, unloading : CW13, CW28, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE9
Hazard identification number (RID) : 60

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
18.	MERCURIC OXIDE YELLOW AR

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Listed on the PIC list (Regulation EU 649/2012): mercury monoxide

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

France

Occupational diseases	
Code	Description
RG 2	Occupational diseases caused by mercury and its compounds

Germany

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV).

Chemicals Prohibition Ordinance (ChemVerbotsV) : This product is subject to ChemVerbotsV Annex 2 Entry 1. The following requirements must be observed: authorization requirement (according to § 6 paragraph 1 sentence 1), basic

requirements for carrying out the delivery (according to § 8 paragraph 1, 3 and 4), identification and documentation (according to § 9 paragraph 1 to 3) and exclusion of the

shipping route (according to § 10).

Hazardous Incident Ordinance (12. BImSchV) : Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed SZW-lijst van mutagene stoffen : The substance is not listed SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed SZW-lijst van reprotoxische stoffen – : The substance is not listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

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Denmark

Danish National Regulations

: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
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
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds

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Abbreviations and acronyms:	
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Full text of H- and EUH-statements:	
Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.