



Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 17.12.2024

Version number 2.00 (replaces version 1.00)

Revision: 17.12.2024

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

- **Product identifier**
- **Trade name:** Hydroquinone
- **Article number:** 4272
- **CAS Number:**
123-31-9
- **EC number:**
204-617-8
- **Index number:**
604-005-00-4
- **Registration number** The substance is exempt from REACH-registration.
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Ingredient for pharmaceutical drugs
- **Uses advised against** No relevant information available.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
CAELO
Caesar & Loretz GmbH
Herderstr. 31
D-40721 Hilden
GERMANY
- **Further information obtainable from:**
E-mail: info@caelo.de
Tel.: +49210349940 (during regular opening hours)
- **Emergency telephone number:**
Poison Information Center Bonn
Venusberg-Campus 1, 53127 Bonn
Tel: +49 (0) 228-192400

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Acute Tox. 4 H302 Harmful if swallowed.
Eye Dam. 1 H318 Causes serious eye damage.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Muta. 2 H341 Suspected of causing genetic defects.
Carc. 2 H351 Suspected of causing cancer.
Aquatic Acute 1 H400 Very toxic to aquatic life.
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.

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Hazard pictograms

GHS05



GHS07



GHS08



GHS09

Signal word Danger**Hazard statements**

- H302 Harmful if swallowed.
- H318 Causes serious eye damage.
- H317 May cause an allergic skin reaction.
- H341 Suspected of causing genetic defects.
- H351 Suspected of causing cancer.
- H400 Very toxic to aquatic life.

Precautionary statements

- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.
- P321 Specific treatment (see on this label).
- P330 Rinse mouth.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards**Results of PBT and vPvB assessment**

- PBT:** Not applicable.
- vPvB:** Not applicable.
- Determination of endocrine-disrupting properties** Not applicable.

3 Composition/information on ingredients

Substances**CAS No. Description**

CAS: 123-31-9 1,4-dihydroxybenzene

Identification number(s)**EC number:** 204-617-8**Index number:** 604-005-00-4**M-factor** Aquatic Acute: 10

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4 First aid measures

· **Description of first aid measures**

· **After inhalation:**

Bring the person out of the contaminated area to fresh air.

Call a doctor immediately.

Show product-label or this MSDS.

· **After skin contact:**

Take off contaminated clothes and shoes, wash immediately with plenty of water and soap.

· **After eye contact:**

Rinse opened eye for several minutes under running water.

Seek medical advice, even if no immediate symptoms are observed.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Call for a doctor immediately.

· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

All regular extinguishing media can be used.

Use fire extinguishing methods suitable to surrounding conditions.

· **Special hazards arising from the substance or mixture**

Combustible. In case of fire dangerous vapours/gases can be generated: Smoke gases.

· **Advice for firefighters**

· **Protective equipment:** In case of fire wear suitable protective clothes and respiratory protection.

· **Additional information**

Prevent from entering into drains. Fire residues must be disposed in accordance with official regulations.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Avoid formation of dust.

Avoid contact with the substance.

· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:**

Take up dry. Clean up with water.

Dispose contaminated material as waste according to section 13.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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7 Handling and storage

- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Provide eye rinsing kit.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Tightly closed. Store at a dry place. At room temperature (+15°C to +25°C).
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store receptacle in a well ventilated area.
Store in the dark.
- **Storage class:** TRHS 510: 13 non-combustible solids
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
CAS: 123-31-9 1,4-dihydroxybenzene
OEL Long-term value: 0.5 mg/m³
Sens
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Dust protection mask.
- **Hand protection** Protective gloves
- **Material of gloves**
Nitrile rubber, NBR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye/face protection** Safety glasses
- **Body protection:** Protective work clothing

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9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Physical state

Solid

· Colour:

Colourless

· Odour:

Nearly odourless

· Odour threshold:

Not determined.

· Melting point/freezing point:

172.3 °C

· Boiling point or initial boiling point and boiling range

286.8 °C

· Flammability

Product is not flammable.

· Lower and upper explosion limit

· Lower:

Not determined.

· Upper:

Not determined.

· Flash point:

165 °C

· Auto-ignition temperature:

515 °C

· Decomposition temperature:

Not determined.

· pH

Not applicable.

· Viscosity:

· Kinematic viscosity

Not applicable.

· Dynamic:

Not applicable.

· Solubility

· water at 25 °C:

72 g/l

· Partition coefficient n-octanol/water (log value)

-0.22915

· Vapour pressure:

0 hPa

· Density and/or relative density

· Density at 20 °C:

1.328 g/cm³

· Relative density

Not determined.

· Vapour density

Not applicable.

· Particle characteristics

Not determined

· Other information

· Appearance:

· Form:

Crystalline

· Important information on protection of health and environment, and on safety.

· Ignition temperature:

Not determined.

· Explosive properties:

Product does not present an explosion hazard.

· Change in condition

· Evaporation rate

Not applicable.

· Information with regard to physical hazard classes

· Explosives

Void

Void

· Flammable gases

Void

Void

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· Aerosols	Void
	Void
· Oxidising gases	Void
	Void
· Gases under pressure	Void
	Void
· Flammable liquids	Void
	Void
· Flammable solids	Void
	Void
· Self-reactive substances and mixtures	Void
	Void
· Pyrophoric liquids	Void
	Void
· Pyrophoric solids	Void
	Void
· Self-heating substances and mixtures	Void
	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
	Void
· Oxidising liquids	Void
	Void
· Oxidising solids	Void
	Void
· Organic peroxides	Void
	Void
· Corrosive to metals	Void
	Void
· Desensitised explosives	Void
	Void

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Processing temperature over 5 °C.
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Reacts with strong oxidising agents.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**
Alkalis
Strong oxidizing agents
- **Hazardous decomposition products:** Irritant gases/vapours

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11 Toxicological information

Information on hazard classes as defined in Regulation (EC) No 1272/2008**Acute toxicity** Harmful if swallowed.**LD/LC50 values relevant for classification:**

Oral LD50 367 mg/kg (rat)

Dermal LD50 2,000 mg/kg (rabbit)

Primary irritant effect:**Skin corrosion/irritation** Based on available data, the classification criteria are not met.**Serious eye damage/irritation** Causes serious eye damage.**Respiratory or skin sensitisation** May cause an allergic skin reaction.**Germ cell mutagenicity** Suspected of causing genetic defects.**Carcinogenicity** Suspected of causing cancer.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.**Information on other hazards****Endocrine disrupting properties**

On the basis of the available data, the substance does not meet the criteria for the identification of substances having properties of interference with the endocrine system, in accordance with Article 59, paragraph 1 of the REACH Regulation and the criteria established in the Delegated Regulation (EU) 2017 / 2100 of the Commission or in Commission Regulation (EU) 2018/605.

12 Ecological information

Toxicity**Aquatic toxicity:**

LC50 0.638 mg/L (Fish)

EC50 0.33 mg/L (algae)

0.134 mg/L (invertebrates)

71 mg/L (Microorganism)

EC10 0.019 mg/L (algae)

0.0057 mg/L (invertebrates)

58 mg/L (Microorganism)

Persistence and degradability Easily biodegradable**Bioaccumulative potential** Does not accumulate in organisms**Mobility in soil** No further relevant information available.**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**Endocrine disrupting properties**

Based on the available data, the substance does not meet the criteria for the identification of substances with properties affecting the endocrine system according to Article 59(1) of the REACH Regulation and the criteria of the Commission Delegated Regulation (EU) 2017/2100 or in the Commission Regulation (EU) 2018/605.

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The product does not contain substances with endocrine disrupting properties.

· **Other adverse effects**

· **Remark:** Very toxic for fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even extremely small quantities leak into the ground.

Very toxic for aquatic organisms

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to local regulations.

14 Transport information

· **UN number or ID number**

UN3077

· **ADR, IMDG, IATA**

· **UN proper shipping name**

· **ADR**

3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S. (1,4-dihydroxybenzene)

· **IMDG**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S. (1,4-dihydroxybenzene)

· **IATA**

Environmentally hazardous substance, solid, n.o.s. (1,4-
dihydroxybenzene)

· **Transport hazard class(es)**

· **ADR, IMDG, IATA**

· **Class**

9 Miscellaneous dangerous substances and articles.

· **Label**

9

· **Packing group**

· **ADR, IMDG, IATA**

III

· **Environmental hazards:**

· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (ADR):**

Symbol (fish and tree)

· **Special marking (IATA):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Miscellaneous dangerous substances and
articles.

· **Hazard identification number (Kemler code):** 90

· **EMS Number:**

F-A,S-F

· **Maritime transport in bulk according to IMO
instruments**

Not applicable.

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· Transport/Additional information:**· ADR**

- **Limited quantities (LQ)** 5 kg
- **Transport category** 3
- **Tunnel restriction code** -

· IMDG

- **Limited quantities (LQ)** 5 kg
- **UN "Model Regulation":** UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,4-DIHYDROXYBENZENE), 9, III

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)** Not listed
- **REGULATION (EC) No 1907/2006 ANNEX XVII**
Not listed
Conditions of restriction: 75
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
Substance is not listed.
- **National regulations:**
- **Storage of hazardous substances in in nonstationary vessels (TRGS 510) (Germany)**
TRHS 510: 13 non-combustible solids
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

- The information provided is based on our current level of knowledge. This MSDS has been compiled and is exclusively for this product intended.
- **Reasons for alterations** This version replaces all old versions.
 - **Version number of previous version:** 1.00
 - **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Muta. 2: Germ cell mutagenicity – Category 2

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Carc. 2: Carcinogenicity – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

IE