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

- **Informations to product No. 4272**
- **Product name:**

Hydrochinon
 Hydrochinonum
 Hydroquinone

- **Supplier of the Product / responsible Company:**

Caesar & Loretz GmbH
 Herderstr. 31
 40721 Hilden
 Tel.: 02103/4994-0
 Fax: 02103/32360
 e-mail: info@caelo.de

- **Emergency telephone:**

Giftinformationszentrum Mainz
 Langenbeckstr. 1, 55131 Mainz
 Tel.: 06131/19240

- **Relevant identified uses of the substance or mixture and uses advised against:**

No further relevant information available.

- **Application of the substance / mixture:**

Ingredient for pharmaceutical drugs or active pharmaceutical ingredient.

2 Hazards identification

- **GHS-Labeling Elements:**




- **Signal word:** Danger

- **H-Phrases:**

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

- **P-Phrases:**

P262 Do not get in eyes, on skin, or on clothing
 P264 Wash thoroughly after handling
 P273 Avoid release to the environment
 P280 Wear protective gloves/protective clothing/eye protection/face protection
 P301 IF SWALLOWED:
 P310 Immediately call a POISON CENTER or doctor/physician

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P501 Dispose of contents/container to dangerous wastes

P202 Do not handle until all safety precautions have been read and understood

Acute Tox. 4
Skin Sens. 1
Eye Dam. 1
Muta. 2
Carc. 2
Aquatic Acute 1

3 Composition / information on ingredients

- **Chemical characterization:**
- CAS-No. Substance name**
123-31-9 1,4-Dihydroxybenzol
- **EINECS-No.:** 204-617-8
- **Index-No.:** 604-005-00-4
- **REACH-Reg. No.:** 01-2119524016-51-0000
- **INCI-Name:** Hydroquinone

4 First aid measures


- **after inhalation:** Bring the person out of the contaminated area to fresh air, Seek medical help 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 out with plenty of water with the eyelid wide open , seek medical advice, even if no immediate symptoms are observed.
- **after swallowing:** Drink water. Induce vomiting. Seek medical advice.

5 Fire-fighting measures

- **Suitable extinguishing media:** All regular extinguishing media can be used. Select fire fighting measures suitable to surrounding environment.
- **Specific hazards during fire fighting:** Combustible. In case of fire dangerous vapours/gases can be generated: Smoke gases.
- **Special protective equipment for fire-fighters:** Suitable protective clothes and respiratory protection.
- **Additional information:** Prevent fire extinguishing water from contaminating surface water, the ground water system or soil. Residues must be deposited according to local regulations.

6 Accidental release measures

- **Personal protective measures:** Avoid dust formation and contact with substance.
- **Environmental protective measures:** Prevent from entering into drains.
- **Methods for cleaning:** Take up dry. Disposal according to Chapter 13 of this MSDS. Clean up with water.

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7 Handling and storage

- **Handling:**
- **Advice on safe handling:** Ensure good ventilation/exhaustion at the workplace. Handling corresponding to laboratory safety guidelines.
- **Informations to fire or explosion protection:** Keep away from ignition sources. Do not smoke..
- **Storage:**
- **Requirements for storage areas and containers:** Tightly closed. Store at a dry place. At room temperature (+15°C to +25°C). Store at a good ventilated place. Protect from light.

8 Exposure controls / personal protective equipment

Components with limit values that require monitoring at the workplace:


- **CAS-No. Substance name**
123-31-9 Hydrochinon MAK: 2 mg/m³ (dust)
 - **Personal protective equipment:**
 - **Respiratory protection:** Dust protection mask.
 - **Hand protection:** Protection gloves of nitrile rubber, of rubber only in case of short contact.
 - **Eye protection:** Safety glasses.
- C3: possibly cancerogene
M3: possibly mutagene
Sh: Danger of skin sensitization

9 Physical and chemical properties

- **Form:** solid
- **Colour:** colourless - white
- **Odour:** nearly odourless
- **Melting point / melting range:** 172 °C (Decomposition)
- **Boiling point / boiling range:** 287 °C
- **Flash point:** 165 °C
- **Ignition temperature:** 515 °C
- **Decomposition temperature:** > 170 °C
- **Explosion hazard:** The product is not hazardous for explosion, but the explosion of dust-air mixtures is possible.
- **Density:** (20 °C) 1,358 g/cm³
- **Bulk density:** ca. 600 kg/m³
- **Vapour pressure:** <0,1 hPa bei 25 °C
- **Relative vapour density:** 3,81
- **Solubility in / Miscibility with**
- **Water:** (20 °C) 72 g/l
- **Alcohols:** readily soluble in Ethanol

10 Stability and reactivity

- **Thermal decomposition / conditions to avoid:**
Thermal decomposition > 170 °C.
- **Materials to avoid:** Strong oxidants, basic substances.

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- **Hazardous reactions:** Reactions with strong oxidants.
- **Hazardous decomposition products:** On rapid heating hazardous vapours can be released.
- **Additional information:** Combustible, sublimable, strong reductant, Dust explosion hazard

11 Toxicological information

• Acute toxicity:

LD/LD50-data relevant for hazard classification:

123-31-9 Hydrochinon

Oral: LD50: 302 mg/kg (rat)

LDL0 oral 29 mg/kg (man)

LD50, dermal, Rat: > 500 mg/kg, 900mg/kg

• Primary irritating effect:

• **on skin:** Test on skin irritation (Rabbit): no Irritation. (OECD 406)

• **on eyes:** Test on eye irritation (Rabbit): no Irritation. Danger of corneal clouding.

• **Sensitization test:** (guinea pig) Sensitization possible.

• **after swallowing:** Illness, Vomiting, Diarrhea, Respiratory insufficiency, Cyanosis, Collapse.

• **Other information (experimental toxicology):** The estimation of a teratogene effect is not yet finalized.

12 Ecological information

• Information about elimination (persistence and degradability):

BSB5: 0,62 g/g, ThSB: 1,89, BSB 25% von ThSB/5d.

Biodegradation: 86%/14d. Easily biodegradable. Bioaccumulation is not likely.

• Aquatic toxicity:

Toxic for water organisms. Formation of hazardous mixtures with water possible.

High aquatic toxicity.

Fishes: Pimephales promelas LC50 0,044 mg/l/96h (IUCLID)

Daphnia: Daphnia magna EC50 0,29 mg/l/48h (OECD 202)

Other aquatic invertebrates: Tetrahymen pyriformis EC50 95 mg/l/96h (IUCLID)

Alges: pseudokirchneriella subcapitata IC50 0,335 mg/l/72h (IUCLID)

Bacteria: Photobacterium phosphoreum EC50 0,038 mg/l/30min (IUCLID)

• General advices:

Prevent from leaking into ground water, environment waters or drainage. Danger to drinking water if even small quantities leak into the ground.

• **Log pOW:** 0,59

• **Water hazard class:** 3 (VwVwS): very hazardous for water.


13 Disposal considerations

• Product:

• **Recommendation:** Disposal according to local regulations as pharmaceutical waste.

• Empty contaminated packaging:

• **Recommendation:** Disposal according to the local regulations.

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14 Transport informations

- **Land transport according to ADR:**
- **Proper shipping name:** Environmentally hazardous substance, n.o.s., Hydrochinon
- **Class:** 9
- **UN-number:** 3077
- **Packing group:** III
- **Classification code:** M7
- **Limited quantities (Table 3.4.6. ADR):** 5 kg
- **Hazard classification number:** 90
- **Special provisions (Chapter 3.3 ADR):** 274, 335, 601
- **Additional informations for sea transport IMDG:**
- **EMS-No.:** F-A, S-F
- **Properties:** m.p.

15 Regulatory information

- **Labelling according to actual legislation (GHS, Globally Harmonized System of Classification and Labelling of Chemicals):**
The product is classified and labelled according to GHS-regulations.
- **Hazard symbols:** GHS05, GHS07, GHS08, GHS09
- **Signal word:** Danger
- **H-Phrases:**
H351 Suspected of causing cancer
H341 Suspected of causing genetic defects
H302 Harmful if swallowed
H318 Causes serious eye damage
H317 May cause an allergic skin reaction
H400 Very toxic to aquatic life
- **P-Phrases:**
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P301 IF SWALLOWED:
P310 Immediately call a POISON CENTER or doctor/physician
P501 Dispose of contents/container to dangerous wastes
P202 Do not handle until all safety precautions have been read and understood
- **National regulations (Germany):**
- **Water hazard class:** see chapter 12
- **Storage class TRGS 510:** 6.1C

16 Other Information

The information provided in this MSDS is correct to the best of our knowledge at the date of edition.

- **Reason for last revision:** Adjustment to regulation (EC) 1907/2006 (REACH) and GHS-labelling system.