

# Hydroquinone

## Safety Data Sheet

**252204**

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Version: 3.0

Date of issue: 18/07/2011 Revision date 05/11/2018

Supersedes 06/03/2017

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

#### 1.1. Product identifier

Product form : Substance  
 Substance name : Hydroquinone  
 IUPAC name : 1,4-Benzenediol  
 EC Index-No. : 604-005-00-4  
 EC-No. : 204-617-8  
 CAS-No. : 123-31-9  
 Product code : 252204  
 Formula : C<sub>6</sub>H<sub>6</sub>O<sub>2</sub>  
 Product group : Raw material

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

##### 1.2.1. Relevant identified uses

Main use category : Pharmaceutical industry  
 Industrial/Professional use spec : For professional use only  
 Use of the substance/mixture : Active ingredient for the preparation of pharmaceuticals  
 Function or use category : Raw material

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier

Duchefa Farma BV  
 A. Hofmanweg 71  
 2031BH Haarlem - Nederland  
 T +31(0)23-5319093  
[farma@duchefa.nl](mailto:farma@duchefa.nl) - [www.duchefa-farma.com](http://www.duchefa-farma.com)

#### 1.4. Emergency telephone number

Emergency number : Supplier contact information:  
 +31(0)23-5319093 (M-F 09:00-17:00)  
 +31(0)6-30109355 (outside office hours)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Carcinogenicity, Category 2

H351

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Germ cell mutagenicity, Category 2	H341	
Acute toxicity (oral), Category 4	H302	
Serious eye damage/eye irritation, Category 1	H318	
Skin sensitisation, Category 1	H317	
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400	(M=10)

Full text of H statements : see section 16

### Adverse physicochemical, human health and environmental effects

Irritation: severely irritant to eyes. Irritation of the nasal mucous membranes. Skin sensitization.

## 2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: 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.

Precautionary statements (CLP)

: P262 - Do not get in eyes, on skin, or on clothing.  
P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P302+P352 - IF ON SKIN: Wash with plenty of water/...  
P305 - IF IN EYES:  
P351 - Rinse cautiously with water for several minutes.  
P308+P313 - IF exposed or concerned: Get medical advice/attention.  
P273 - Avoid release to the environment.

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type : Pharmaceuticals

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydroquinone	(CAS-No.) 123-31-9 (EC-No.) 204-617-8 (EC Index-No.) 604-005-00-4	99 - 100.5	Carc. 2, H351 Muta. 2, H341 Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=10)

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: If medical advice is needed, have product container or label at hand.
First-aid measures after inhalation	: Assure fresh air breathing. If not breathing, give artificial respiration.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical attention if ill effect or irritation develops.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Seek immediate medical advice.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Seek medical attention immediately.

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

No additional information available

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO <sub>2</sub> ). Water spray.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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

Fire hazard	: On exposure to high temperature, may decompose, releasing toxic gases.
Hazardous decomposition products in case of fire	: On burning: release of harmful gases/vapours.

### 5.3. Advice for firefighters

Firefighting instructions	: Prevent fire fighting water from entering the environment.
Protection during firefighting	: Wear self-contained breathing apparatus, rubber boots and thick rubber gloves.

## SECTION 6: Accidental release measures

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

General measures	: Evacuate area.
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#### 6.1.1. For non-emergency personnel

Protective equipment	: Use the personal protective equipment as indicated in chapter 8.
Emergency procedures	: Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing.

#### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment.
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### 6.2. Environmental precautions

Prevent product from entering drains.

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

For containment : Ensure adequate ventilation. Sweeping or shovelling without dust for disposal.

Methods for cleaning up : Hose down area with water.

### 6.4. Reference to other sections

Reference to other sections (8, 13).

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety practice.

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

Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Store away from heat. Protect from sunlight.

Incompatible products : Metals.

Storage temperature : 15 - 25 °C

### 7.3. Specific end use(s)

Pharmaceutical industry.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Technical measures and appropriate working operations should have priority over the use of personal protective equipment.

#### Hand protection:

Wear gloves according to EN374 to protect against skin effects from powders.

Type	Material	Permeation	Thickness (mm)	Standard
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,11	EN 374

#### Eye protection:

Safety glasses (to European standard EN 166 or equivalent)

#### Skin and body protection:

Protective clothing (with elasticated cuffs and closed neck)

#### Respiratory protection:

Dustmask with filtertype P3

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid

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Appearance	: Crystalline powder.
Molecular mass	: 110.11 g/mol
Colour	: White. Colourless.
Odour	: odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 170 °C
Freezing point	: No data available
Boiling point	: 287 °C
Flash point	: 165 °C
Auto-ignition temperature	: 515 °C
Decomposition temperature	: > 170 °C
Flammability (solid, gas)	: No data available
Vapour pressure	: < 0.01 hPa 25°C
Relative vapour density at 20 °C	: 3.81
Relative density	: No data available
Density	: 1.36 g/cm <sup>3</sup> 20°C
Solubility	: Soluble in water. Soluble in ethanol. Ether. Water: 70 g/l 25°C
Log Pow	: 0.6
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions.

### 10.2. Chemical stability

May decompose under the influence of light.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

On strong heating: Decomposition.

### 10.5. Incompatible materials

Strong oxidizers. Bases. aluminium.

### 10.6. Hazardous decomposition products

In case of fire refer to chapter 5.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

Hydroquinone (123-31-9)	
LD50 oral rat	320 mg/kg
LD50 oral	50 mg/kg guinea pig
LD50 dermal rat	> 900 mg/kg
LD50 dermal	> 1000 mg/kg guinea pig

Skin corrosion/irritation : Not classified  
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 : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Irritation: severely irritant to eyes. Irritation of the nasal mucous membranes.  
Skin sensitization.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Very toxic to aquatic life.

Hydroquinone (123-31-9)	
LC50 fish 1	0.044 mg/l 96 hour, Oncorhynchus mykiss
LC50 fish 2	0.17 mg/l 96 hour Zebra danio, Dano rerio
EC50 Daphnia 1	0.12 - 0.15 mg/l 48 h
EC50 Daphnia 2	0.25 - 0.33 48 h

### 12.2. Persistence and degradability

Hydroquinone (123-31-9)	
Persistence and degradability	readily degradable in water.

### 12.3. Bioaccumulative potential

Hydroquinone (123-31-9)	
Log Pow	0.6
Bioaccumulative potential	Slightly or not bioaccumulative.

### 12.4. Mobility in soil

Hydroquinone (123-31-9)	
Ecology - soil	There are no available data for a classification.

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.  
 Product/Packaging disposal recommendations : Dispose of this material and its container at hazardous or special waste collection point.

### SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
3077	3077	3077	Not applicable	3077
<b>14.2. UN proper shipping name</b>				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (HYDROQUINONE)	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
9	9	9	Not applicable	9
<b>14.4. Packing group</b>				
III	III	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

#### 14.6. Special precautions for user

##### - Overland transport

Classification code (ADR) : M7  
 Limited quantities (ADR) : 5kg  
 Excepted quantities (ADR) : E1  
 Hazard identification number (Kemler No.) : 90  
 Orange plates :



Tunnel restriction code (ADR) : E  
 EAC code : 2Z

##### - Transport by sea

No data available

##### - Air transport

No data available

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### - Inland waterway transport

No data available

### - Rail transport

No data available

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Hydroquinone is not on the REACH Candidate List

Hydroquinone is not on the REACH Annex XIV List

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:

1.2	Use of the substance/mixture	Added	
1.4	Emergency telephone	Modified	Added additional information
2	Classification (DSD/DPD)	Removed	Obsolete
2.2	Precautionary statements (CLP)	Added	P301+P312;308+313;P273
2.2	Precautionary statements (CLP)	Removed	P280
8.2	Hand protection	Modified	Specified material, thickness, et cetera of gloves
8.2	Respiratory protection	Modified	Added additional information
13.1	Regional legislation (waste)	Added	
13.1	Sewage disposal recommendations	Removed	

Abbreviations and acronyms:

SDS	Safety Data Sheet
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
BCF	Bioconcentration factor
ATE	Acute Toxicity Estimate
EC50	Median effective concentration

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LC50	Median lethal concentration
LD50	Median lethal dose

Data sources : Supplier.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Muta. 2	Germ cell mutagenicity, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.

SDS EU (REACH Annex II) Version 2018

*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*