(in accordance with Regulation (EU) 2015/830)

93911-HYDROQUINONE

Version 1 Date of compilation: 3/06/2016



SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: **HYDROQUINONE**

Product Code: 93911

Chemical Name: 1,4-dihydroxybenzene; hydroquinone; quinol

Index No: 604-005-00-4 CAS No: 123-31-9 EC No: 204-617-8

01-2119524016-51-XXXX Registration No:

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

Active pharmaceutical ingredient

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

GUINAMA Company:

Address: C/ Praga, s/n. P.I. Gutenberg 46185 La Pobla de Vallbona City: Province: Valencia

Telephone: +34961869090 / 902119816

+34961850352 Fax: E-mail: ventas@guinama.com Web: www.guinama.com

1.4 Emergency telephone number: +34961869090 / 902119816 (Only available during office hours; Monday-Friday; 08:00-

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance or mixture.

In accordance with Regulation (EU) No 1272/2008:

Acute Tox. 4: Harmful if swallowed.

Aquatic Acute 1: Very toxic to aquatic life. (M=10)

Carc. 2: Suspected of causing cancer. Eye Dam. 1: Causes serious eye damage. Muta. 2: Suspected of causing genetic defects. Skin Sens. 1: May cause an allergic skin reaction.

2.2 Label elements.

Labelling in accordance with Regulation (EU) No 1272/2008:

Pictograms:









Signal Word: **Danger**

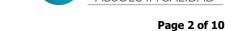
H statements:

H302 Harmful if swallowed.

May cause an allergic skin reaction. H317 H318 Causes serious eye damage.

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H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.

P statements:

P201 Obtain special instructions before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

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).

2.3 Other hazards.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Chemical Name: [1] 1,4-dihydroxybenzene; hydroquinone; quinol

Index No: 604-005-00-4 CAS No: 123-31-9 EC No: 204-617-8

Registration No: 01-2119524016-51-XXXX

[1] Substance with a Community workplace exposure limit (see section 8.1).

3.2 Mixtures.

Not Applicable.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.

Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Dont let the person to rub the affected eye.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

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

Corrosive Product, contact with eyes or skin can cause burns; ingestion or inhalation can cause internal damage, if this occurs immediate medical assistance is required.

Harmful Product, prolonged exposure due to inhalation may cause anaesthetic effects and the need for immediate medical assistance.

Long-term chronic exposure may result in injury to certain organs or tissues.

Contact with eyes may cause irreversible damage.

It may cause an allergic reaction, dermatitis, redness or inflammation of the skin.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious. Keep the person comfortable. Turn him/her over to the left side and stay there while waiting for medical care.

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The product is NOT classified as flammable, in case of fire the following measures should be taken:

5.1 Extinguishing media.

Suitable extinguishing media:

Extinguisher powder or CO2. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media:

Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

5.2 Special hazards arising from the substance or mixture.

Special risks

Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways. Product residues and extinguishing media may contaminate the aquatic environment.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Product dangerous for the environment, in case of large spills or if the product contaminates lakes, rivers, or sewers, inform the responsible authorities according to local legislation. Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.

Contain and collect spillage with inert absorbent material (earth, sand, vermiculite, Kieselguhr...) and clean the area immediately with a suitable decontaminant.

Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

For personal protection, see section 8.

In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Store the containers between 5 and 25 ° C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

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The product is not affected by Directive 2012/18/EU (SEVESO III).

7.3 Specific end use(s).

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Work exposure limit for:

Name	CAS No.	Country	Limit value	ppm	mg/m³
1,4-dihydroxybenzene, hydroquinone, quinol	123-31-9	United	Eight hours		0,5
		Kingdom [1]	Short term		
		Éire [2]	Eight hours		0,5
			Short term		
		United States [3] (Cal/OSHA)	Eight hours		2
			Short term		
		United States [4] (NIOSH)	Eight hours		(Ceiling) 2 [15- min]
			Short term		
		United States	Eight hours		2
		[5] (OSHA)	Short term		

^[1] According Limit Value (IOELV) list in 2nd Indicative Occupational Exposure adobted by Health and Safety Executive.

Concentration levels DNEL/DMEL:

Name	DNEL/DMEL	Туре	Value
1,4-dihydroxybenzene, hydroquinone, quinol CAS No: 123-31-9	DNEL (Workers)	Inhalation, Long-term, Local effects	1 (mg/m³)
EC No: 204-617-8	DNEL (Workers)	Inhalation, Long-term, Systemic effects	7 (mg/m³)

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	100 %			
Uses:	Active pharmaceutical ingredient			
Breathing protection:				
PPE:	Particle filter mask			
Characteristics:	«CE» marking, category III. Made of filtering material, it covers nose, mouth and chin.			
CEN standards:	EN 149			
Maintenance:	Check for any tears, defects, etc. before use. Since it is disposable individual protection equipment, it should be replaced after use.			
Observations:	Does not protect worker unless properly adjusted. Follow the manufacturer's instructions regarding suitable use of the equipment.			
Filter Type needed:	P2			

^[2] According Code of Practice for the Safety, Health and Welfare at Work (Chemicals Agents) Regulations adopted by Health and Safety Authority (HSA).

^[3] California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).

^[4] National Institute for Occupational Safety and Health. NIOSH Recommendations for occupational safety and health, Compendium of Policy Documents and Statements, January, 1992, DHHS (NIOSH) Publication No. 92-100.

^[5] Occupational Safety and Health Administration, United States Department of Labor. Permissible Exposure limits (PELs), California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).

The product does NOT contain substances with Biological Limit Values.

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Hand protection:

PPE: Protective gloves against chemicals.

Characteristics: «CE» marking, category III.

CEN standards: EN 374-1, En 374-2, EN 374-3, EN 420

Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible.

Maintenance: Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or

Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Observations:

Always use with clean, dry hands.

Breakthrough time Material thickness > 480 0,35

Material: PVC (polyvinyl chloride)

(min.): (mm):

Eye protection:

Protective goggles against particle impacts. PPE:

Characteristics: «CE» marking, category II. Eye protector against dust and smoke.

CEN standards: EN 165, EN 166, EN 167, EN 168

Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should Maintenance:

be disinfected periodically following the manufacturer's instructions.

Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, Observations:

scraping etc.

Skin protection:

Protective clothing. PPF:

«CE» marking, category II. Protective clothing should not be too tight or loose in Characteristics:

order not to obstruct the user's movements.

CEN standards: EN 340

In order to guarantee uniform protection, follow the washing and maintenance instructions provided by Maintenance:

the manufacturer.

The protective clothing should offer a level of comfort in line with the level of protection provided in

Observations: terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level

of activity and the expected time of use.

PPE: Work footwear

Characteristics: «CE» marking, category II. CEN standards: EN ISO 13287, EN 20347

This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should Maintenance:

not be used by other people.

Work footwear for professional use includes protection elements aimed at protecting users against any Observations:

injury resulting from an accident

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Appearance:Solid Colour: white-colorless Odour:odorless Odour threshold:odorless

pH:3.75

Melting point:172 °C Boiling Point: 285 °C Flash point: 165 °C Evaporation rate: N.A./N.A. Inflammability (solid, gas): 165 °C Lower Explosive Limit: N.A./N.A. Upper Explosive Limit: N.A./N.A. Vapour pressure: < 0,1 hPa Vapour density: N.A./N.A. Relative density:1,33 Solubility: N.A./N.A.

Liposolubility: N.A./N.A.

Hydrosolubility: 70 g/l Partition coefficient (n-octanol/water): 0.59 Auto-ignition temperature: N.A./N.A. Decomposition temperature: N.A./N.A.

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Viscosity: N.A./N.A.

Explosive properties: N.A./N.A. Oxidizing properties: N.A./N.A.

N.A./N.A.= Not Available/Not Applicable due to the nature of the product

9.2 Other information.

Dropping point: N.A./N.A.

Blink: N.A./N.A.

Kinematic viscosity: N.A./N.A.

N.A./N.A.= Not Available/Not Applicable due to the nature of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Unstable in contact with:

- Acids.
- Bases.
- Oxidizing agents.

10.3 Possibility of hazardous reactions.

Neutralization can occur on contact with bases.

At high temperatures can occur pyrolysis and dehydrogenation.

In certain conditions this may cause a polymerization reaction.

10.4 Conditions to avoid.

Avoid the following conditions:

- Heating.
- High temperature.
- Contact with incompatible materials.
- Avoid contact with bases.

10.5 Incompatible materials.

Avoid the following materials:

- Acids.
- Bases
- Oxidizing agents.

10.6 Hazardous decomposition products.

Depending on conditions of use, can be generated the following products:

- COx (carbon oxides).
- Organic compounds.
- Corrosive vapors or gases.
- Aromatics compounds.

In case of fire, dangerous decomposition products can be generated, such as carbon monoxide and dioxide and nitrogen fumes and oxides.

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects.

There are no tested data available on the product.

Splatters in the eyes can cause irritation and reversible damage.

a) acute toxicity;

Product classified:

Acute toxicity (Oral), Category 4: Harmful if swallowed.

b) skin corrosion/irritation;

Not conclusive data for classification.

c) serious eye damage/irritation;



-Continued on next page.-

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Product classified:

Serious eye damage, Category 1: Causes serious eye damage.

d) respiratory or skin sensitisation;

Product classified:

Skin sensitiser, Category 1: May cause an allergic skin reaction.

e) germ cell mutagenicity;

Product classified:

Mutagen, Category 2: Suspected of causing genetic defects.

f) carcinogenicity;

Product classified:

Carcinogen, Category 2: Suspected of causing cancer.

g) reproductive toxicity;

Not conclusive data for classification.

h) STOT-single exposure:

Not conclusive data for classification.

i) STOT-repeated exposure;

Not conclusive data for classification.

j) aspiration hazard;

Not conclusive data for classification.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

No information is available regarding the ecotoxicity.

12.2 Persistence and degradability.

No information is available regarding the biodegradability.

No information is available on the degradability. No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.

Information about the bioaccumulation.

Name	Bioaccumulation			
Name	Log Pow BCF NOECs		Level	
1,4-dihydroxybenzene, hydroquinone, quinol	0.50			Verv low
CAS No: 123-31-9 EC No: 204-617-8	0,59	_	_	very low

12.4 Mobility in soil.

No information is available about the mobility in soil.

The product must not be allowed to go into sewers or waterways.

Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

SECTION 13: DISPOSAL CONSIDERATIONS.

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13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

Follow the provisions of Directive 2008/98/EC regarding waste management.

SECTION 14: TRANSPORT INFORMATION.

Transport following ADR rules for road transport, RID rules for railway, ADN for inner waterways, IMDG for sea, and ICAO/IATA for air transport.

Land: Transport by road: ADR, Transport by rail: RID.

Transport documentation: Consignment note and written instructions

<u>Sea:</u> Transport by ship: IMDG. Transport documentation: Bill of lading <u>Air</u>: Transport by plane: ICAO/IATA. Transport document: Airway bill.

14.1 UN number. UN No: UN3077

14.2 UN proper shipping name.

Description:

ADR: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS 1,4-DIHYDROXYBENZENE HYDROQUINONE QUINOL), 9, PG III, (-)

IMDG: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS 1,4-DIHYDROXYBENZENE HYDROQUINONE QUINOL), 9, PG III, MARINE POLLUTANT

ICAO/IATA: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS 1,4-

DIHYDROXYBENZENE HYDROQUINONE QUINOL), 9, PG III

14.3 Transport hazard class(es).

Class(es): 9

14.4 Packing group.

Packing group: III

14.5 Environmental hazards.

Marine pollutant: Yes



Dangerous for the environment

14.6 Special precautions for user.

Labels: 9



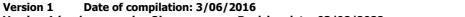
Hazard number: 90 ADR LQ: 5 kg IMDG LQ: 5 kg ICAO LQ: 30 kg B

Provisions concerning carriage in bulk ADR:

VC1 Carriage in bulk in sheeted vehicles, sheeted containers or sheeted bulk containers is permitted.
VC2 Carriage in bulk in closed vehicles, closed containers or closed bulk containers is permitted.

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Transport by ship, FEm - Emergency sheets (F - Fire, S - Spills): F-A,S-F Proceed in accordance with point 6.

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

The product is not transported in bulk.

SECTION 15: REGULATORY INFORMATION.

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

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

Product classification according to Annex I of Directive 2012/18/EU (SEVESO III): N/A

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

Classification codes:

Acute Tox. 4: Acute toxicity (Oral), Category 4

Aquatic Acute 1: Acute toxicity to the aquatic environment, Category 1

Carc. 2: Carcinogen, Category 2

Eye Dam. 1 : Serious eye damage, Category 1

Muta. 2: Mutagen, Category 2

Skin Sens. 1 : Skin sensitiser, Category 1

Changes regarding to the previous version:

- Modification in the values of the physical and chemical properties (SECTION 9).

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data Health hazards Calculation method **Environmental hazards** Calculation method

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Information on the TSCA Inventory (Toxic Substances Control Act) USA:

CAS No	Name	State
123-31-9	1,4-dihydroxybenzene, hydroquinone, quinol	Registered

Risk classification system NFPA 704:

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Health hazard: 3 (Extreme Danger)

Flammability: 0 (Will not burn)

Reactivity: 0 (Stable)

Abbreviations and acronyms used:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

BCF: Bioconcentration factor.

CEN: European Committee for Standardization.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be

considered a tolerable minimum.

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not

anticipated.

EC50: Half maximal effective concentration.

PPE: Personal protection equipment.

IATA: International Air Transport Association.

ICAO: International Civil Aviation Organization.

IMDG: International Maritime Code for Dangerous Goods.

LC50: Lethal concentration, 50%.

LD50: Lethal dose, 50%.

Log Pow: Logarithm of the partition octanol-water.

NOEC: No observed effect concentration.

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.

Key literature references and sources for data:

http://eur-lex.europa.eu/homepage.html

http://echa.europa.eu/

Regulation (EU) 2015/830. Regulation (EC) No 1907/2006. Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.