



## Safety Data Sheet

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

#### Product identifier:

Product name: Hydroquinone

SDS No. : 3767E-2

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

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN

Division: Safety Management Dept. of Chemicals

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

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### 2. Hazards identification

#### GHS classification and label elements of the product

#### Classification of the substance or mixture

##### HEALTH HAZARDS

Acute toxicity (Oral): Category 4

Serious eye damage/eye irritation: Category 1

Skin sensitization: Category 1

Germ cell mutagenicity: Category 1B

Carcinogenicity: Category 2

Specific target organ toxicity – single exposure: Category 1(central nervous system)

Specific target organ toxicity – repeated exposure: Category 2(kidney; liver)

##### ENVIRONMENT HAZARDS

Hazardous to the aquatic environment (Acute): Category 1

Hazardous to the aquatic environment (Long-term): Category 1

#### Label elements



Signal word: Danger

#### HAZARD STATEMENT

Harmful if swallowed

Causes serious eye damage

May cause an allergic skin reaction

May cause genetic defects

Suspected of causing cancer

Causes damage to organs after single exposure(central nervous system)

May cause damage to organs through prolonged or repeated exposure(kidney; liver)

Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

#### PRECAUTIONARY STATEMENT

##### Prevention

Avoid release to the environment.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash contaminated parts thoroughly after handling.

Wear protective gloves.



Contaminated work clothing should not be allowed out of the workplace.

Wear eye protection/face protection.

Do not eat, drink or smoke when using this product.

#### Response

Collect spillage.

Get medical advice/attention if you feel unwell.

IF exposed or concerned: Get medical advice/attention.

IF exposed or concerned: Call a POISON CENTER or doctor/physician.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Rinse mouth.

#### Disposal

Dispose of contents/container in accordance with local/national regulation.

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### 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name:Hydroquinone

Content (%):99(min)

Chemical formula:C6H6O2

Chemicals No, Japan:3-543

CAS No.:123-31-9

MW:110.11

ECNO:204-617-8

Note : The figures shown above are not the specifications of the product.

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### 4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical attention/advice if you feel unwell.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth.

Call a POISON CENTER or doctor/physician if you feel unwell.



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## 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

#### Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

### Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

### Advice for firefighters

#### Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

#### Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/retardant clothing.

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

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

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## 6. Accidental release measures

### Personnel precautions, protective equipment and emergency procedures

Ventilate area until material pick up is complete.

Wear proper protective equipment.

### Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

### Methods and materials for containment and cleaning up

Sweep up, place in a bag and hold for waste disposal.

### Preventive measures for secondary accident

Collect spillage.

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## 7. Handling and storage

### Precautions for safe handling

#### Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

#### Safety Measures

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

When using do not eat, drink or smoke.

#### Any incompatibilities

See "10.Stability and Reactivity"

#### Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.



Take off contaminated clothing and wash it before reuse.

#### Storage

Conditions for safe storage

Keep container tightly closed.

Store in a cool, dry place. Do not store in direct sunlight.

Container and packaging materials for safe handling

Polyethylene

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#### 8. Exposure controls/personal protection

##### Control parameters

Adopted value

(Hydroquinone)

ACGIH(2007) TWA: 1mg/m<sup>3</sup> (Eye irr; eye dam)

Notation

(Hydroquinone)

DSEN

OSHA-PEL

(Hydroquinone)

TWA: 2mg/m<sup>3</sup>

##### Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

Individual protection measures

Respiratory protection

Wear respiratory protection.

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

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#### 9. Physical and Chemical Properties

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

Physical state: Crystals

Color: Colorless, white to grayish white

Odor: Characteristic odor

Melting point/Freezing point: 172°C

Boiling point or initial boiling point: (Hydroquinone)287°C

Boiling range data is not available.

Flammability (gases, liquids and solids) data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Flash point: (Hydroquinone)165°C

Auto-ignition temperature: (Hydroquinone)515°C

Decomposition temperature data is not available.

pH data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: 5.9 g/100 ml (15°C)

n-Octanol/water partition coefficient: log Pow0.59

Vapor pressure: 0.12 Pa (20°C)

Density and/or relative density: 1.3



Relative vapor density (Air=1): 3.8

Relative density of the Vapor/air – mixture at 20°C (Air = 1): 1

No Particle characteristics data is not available.

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## 10. Stability and Reactivity

### Reactivity

Not available.

### Chemical stability

May discolor on exposure to air.

### Possibility of hazardous reactions

Dust explosion possible if in powder or granular form, mixed with air.

Reacts violently with sodium hydroxide. (ICSC 0166)

### Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

### Incompatible materials

Sodium hydroxide

### Hazardous decomposition products

Carbon oxides

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## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

##### Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Hydroquinone)

rat LD50=390mg/kg (SIDS, Access on Apr. 2012)

#### Irritant properties

Skin corrosion/irritation data is not available.

##### Serious eye damage/irritation

[GHS Cat. Japan, base data]

(Hydroquinone)

rabbit corrosive damage (DFGMAK–Doc. 10, 1998)

#### Sensitization

##### Skin sensitization

[GHS Cat. Japan, base data]

(Hydroquinone)

cat. 1; EHC 157, 1994

#### Germ cell mutagenicity

[GHS Cat. Japan, base data]

(Hydroquinone)

cat. 1B; EHC 157, 1994

#### Carcinogenicity

[GHS Cat. Japan, base data]

(Hydroquinone)

cat.2; ACGIH A3 (ACGIH, 2008 et al.)

(Hydroquinone)

IARC–Gr.3 : Not Classifiable as a Human Carcinogen

(Hydroquinone)

ACGIH–A3(2007) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

(Hydroquinone)

EU–Category 2; Substances suspected human carcinogens



Reproductive toxicity data is not available.

#### STOT

STOT-single exposure

[cat.1]

[GHS Cat. Japan, base data]

(Hydroquinone)

central nervous system (EHC 157, 1994; DFGMAK-Doc. 10, 1998)

STOT-repeated exposure

[cat.2]

[GHS Cat. Japan, base data]

(Hydroquinone)

kidney; liver (NTP TR 366, 1989)

Aspiration hazard data is not available.

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## 12. Ecological Information

### Ecotoxicity

#### Aquatic toxicity

Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

(Hydroquinone)

Fish (fat head minnow) LC50=0.044mg/L/96hr (NITE primary risk assessment, 2008)

Hazardous to the aquatic environment (Long-term)

[GHS Cat. Japan, base data]

(Hydroquinone)

Crustacea (Daphnia magna) NOEC=0.003mg/L/21days (MOE Japan, 2010)

#### Water solubility

(Hydroquinone)

5.9 g/100 ml (15°C) (ICSC, 2001)

#### Persistence and degradability

(Hydroquinone)

BOD\_Degradation : 70% (Registered chemicals data check & review)

#### Bioaccumulative potential

(Hydroquinone)

log Pow=0.59 (PHYSPROP DB, 2009)

#### Mobility in soil

Mobility in soil data is not available.

#### Other adverse effects

Ozone depleting chemical data is not available.

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## 13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

#### Waste treatment methods

Avoid release to the environment (- if this is not the intended use).

Dispose of contents/container in accordance with local/national regulation.



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**14. Transport Information**

UN No. or ID No.: 3077

UN Proper Shipping Name :

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Class or division (Transport hazard class) : 9

Packing group : III

ERG GUIDE No.: 171

Special provisions No.: 274; 331; 335; 375

**IMDG Code (International Maritime Dangerous Goods Regulations)**

UN No.: 3077

Proper Shipping Name :

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Class or division : 9

Packing group : III

Special provisions No.: 274; 335; 966; 967; 969

**IATA Dangerous Goods Regulations**

UN No.: 3077

Proper Shipping Name :

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Class or division : 9

Hazard labels : Miscellaneous &amp; Environmentally hazardous

Packing group : III

Special provisions No.: A97; A158; A179; A197; A215

**Environmental hazards****MARPOL Annex III – Prevention of pollution by harmful substances**

Marine pollutants (yes/no) : yes

**MARPOL Annex V – Prevention of pollution by garbage discharge**

Germ cell mutagenicity: cat.1, 1A, 1B

Hydroquinone

Hazardous to the aquatic environment – acute hazard: cat.1

Hydroquinone

Hazardous to the aquatic environment – long-term hazard: cat.1, 2

Hydroquinone

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**15. Regulatory Information**

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

Chemicals listed in TSCA Inventory

Hydroquinone

Other regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

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**16. Other information**

GHS classification and labelling

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. 1B: H340 May cause genetic defects

Carc. 2: H351 Suspected of causing cancer

STOT SE 1: H370 Causes damage to organs after single exposure

STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure



Aquatic Acute 1: H400 Very toxic to aquatic life

Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects

#### Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN IMDG Code, 2018 Edition (Incorporating Amendment 39-18)

IATA Dangerous Goods Regulations (62nd Edition) 2021

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2020 TLVs and BEIs. (ACGIH)

Supplier's data/information

#### General Disclaimer

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2019).