

SAFETY DATA SHEET

Creation Date 08-Oct-2014

Revision Date 08-Oct-2014

Revision Number 1

1. Identification

Product Name Hydroquinone Capsule

Cat No. : 23900657

Synonyms No information available

Recommended Use Laboratory chemicals.

Uses advised against No Information available

Details of the supplier of the safety data sheet

Company

Richard Allan Scientific
A Subsidiary of Thermo Fisher Scientific
4481 Campus Drive
Kalamazoo, MI 49008
Tel: (800) 522-7270

Emergency Telephone Number

Chemtrec US: (800) 424-9300
Chemtrec EU: 001 (202) 483-7616

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity	Category 4
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitization	Category 1
Germ Cell Mutagenicity	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Central nervous system (CNS).	

Label Elements

Signal Word

Danger

Hazard Statements

Harmful if swallowed
May cause an allergic skin reaction
Causes serious eye damage
May cause drowsiness or dizziness
Suspected of causing genetic defects
Suspected of causing cancer

**Precautionary Statements****Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves
 Use only outdoors or in a well-ventilated area

Response

IF exposed or concerned: Get medical attention/advice

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Skin

IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician

Ingestion

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

Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life
 Sensitivity to light

3. Composition / information on ingredients

Component	CAS-No	Weight %
Hydroquinone	123-31-9	100

4. First-aid measures

General Advice

If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact

Call a physician immediately. SPEEDY ACTION IS CRITICAL, GET MEDICAL AID

IMMEDIATELY. If symptoms persist, call a physician. Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation

Move to fresh air. Artificial respiration and/or oxygen may be necessary. Consult a physician. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician.

Most important symptoms/effects

Causes eye burns. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Notes to Physician

Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Carbon dioxide (CO₂). Water. Water spray.

Unsuitable Extinguishing Media No information available

Flash Point 165 °C / 329 °F
Method - No information available

Autoignition Temperature 515 °C / 959 °F

Explosion Limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

None known

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
2

Flammability
1

Instability
1

Physical hazards
N/A

6. Accidental release measures

Personal Precautions Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental Precautions See Section 12 for additional ecological information. Avoid release to the environment. Collect spillage. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods for Containment and Clean Up Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. Handling and storage

Handling Pay attention to flashback. No information available.

Storage Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydroquinone	TWA: 1 mg/m ³	(Vacated) TWA: 2 mg/m ³ TWA: 2 mg/m ³	IDLH: 50 mg/m ³ Ceiling: 2 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Hydroquinone	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 1 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection	Tightly fitting safety goggles.
Skin and body protection	Long sleeved clothing. Impervious gloves.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Hygiene Measures	When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

9. Physical and chemical properties

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	3.75
Melting Point/Range	170 - 174 °C / 338 - 345.2 °F
Boiling Point/Range	285 °C / 545 °F @ 760 mmHg
Flash Point	165 °C / 329 °F
Evaporation Rate	No information available
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Relative Density	1.320
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	515 °C / 959 °F
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	C6H6O2
Molecular Weight	110.11

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	None under normal use conditions
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydroquinone	298 mg/kg (Rat)	74800 mg/kg (Rabbit)	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	No information available														
Sensitization	May cause sensitization by inhalation May cause sensitization by inhalation and skin contact														
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.														
	<table border="1"> <thead> <tr> <th>Component</th> <th>CAS-No</th> <th>IARC</th> <th>NTP</th> <th>ACGIH</th> <th>OSHA</th> <th>Mexico</th> </tr> </thead> <tbody> <tr> <td>Hydroquinone</td> <td>123-31-9</td> <td>Not listed</td> <td>Not listed</td> <td>A3</td> <td>Not listed</td> <td>A3</td> </tr> </tbody> </table>	Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico	Hydroquinone	123-31-9	Not listed	Not listed	A3	Not listed	A3
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	<p><i>ACGIH: (American Conference of Governmental Industrial Hygienists)</i></p> <p><i>Mexico - Occupational Exposure Limits - Carcinogens</i></p> <p><i>A1 - Known Human Carcinogen</i> <i>A2 - Suspected Human Carcinogen</i> <i>A3 - Animal Carcinogen</i> <i>ACGIH: (American Conference of Governmental Industrial Hygienists)</i> <i>Mexico - Occupational Exposure Limits - Carcinogens</i> <i>A1 - Confirmed Human Carcinogen</i> <i>A2 - Suspected Human Carcinogen</i> <i>A3 - Confirmed Animal Carcinogen</i> <i>A4 - Not Classifiable as a Human Carcinogen</i> <i>A5 - Not Suspected as a Human Carcinogen</i></p>														
Mutagenic Effects	Mutagenic effects have occurred in humans.														
Reproductive Effects	May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility.														
Developmental Effects	No information available.														
Teratogenicity	No information available.														
STOT - single exposure	Central nervous system (CNS)														
STOT - repeated exposure	None known														
Aspiration hazard	No information available														
Symptoms / effects, both acute and delayed	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing														
Endocrine Disruptor Information	No information available														

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Hydroquinone	0.335 mg/L EC50 = 72 h 13.5 mg/L EC50 = 120 h	0.17 mg/L LC50 96 h 0.1 - 0.18 mg/L LC50 96 h 0.044 mg/L LC50 96 h	EC50 = 0.038 mg/L 15 min EC50 = 0.0382 mg/L 30 min EC50 = 0.042 mg/L 5 min EC50 = 23.75 mg/L 60 min	0.29 mg/L EC50 = 48 h

Persistence and Degradability No information available
Bioaccumulation/ Accumulation No information available.

Mobility

Component	log Pow
Hydroquinone	0.5

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

All of the components in the product are on the following Inventory lists: Australia X = listed China Canada The product is classified and labeled according to EC directives or corresponding national laws The product is classified and labeled in accordance with Directive 1999/45/EC Europe TSCA Korea Philippines Japan

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Hydroquinone	X	X	-	204-617-8	-		X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Hydroquinone	123-31-9	100	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act Not applicable

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Hydroquinone	X		-

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Hydroquinone	100 lb	100 lb

California Proposition 65 This product does not contain any Proposition 65 chemicals

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Hydroquinone	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ):	N
DOT Marine Pollutant	Y
DOT Severe Marine Pollutant	Y

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade Slight risk, Grade 1

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class D2B Toxic materials
D1B Toxic materials
E Corrosive material



16. Other information

Prepared By	Regulatory Affairs Richard Allan Scientific A Subsidiary of Thermo Fisher Scientific Tel: (800) 522-7270
Creation Date	08-Oct-2014
Revision Date	08-Oct-2014
Print Date	08-Oct-2014
Revision Summary	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS