



SAFETY DATA SHEET

US GHS

Revision Date 29-Aug-2017

Version 3

Issue Date No data available

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name HYDROQUINONE

Safety data sheet number G0010

Alternate Name None

Recommended Use Production of tires and other rubber products.

Company Name The Goodyear Tire & Rubber Company, 200 Innovation Way, Akron, Ohio 44316-0001 U.S.A.

Company Phone Number Technical Assistance 1.330.796.1906

24 Hour Emergency Phone Number Goodyear / 24 hour Assistance 1.330.796.5111

Emergency Telephone CHEMTREC: +1-703-741-5970 (INTERNATIONAL) 1-800-424-9300 (NORTH AMERICA)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 2

Emergency Overview

Signal word

Danger

Hazard statements

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



Appearance beige

Odor Odorless

Physical state Solid

Precautionary statements

Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection
 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

Response

IF exposed or concerned: Get medical advice/attention

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

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

Ingestion

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

Rinse mouth

Storage

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other hazards

0% of the mixture consists of ingredient(s) of unknown toxicity
 Very toxic to aquatic life Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Hydroquinone	123-31-9	99+

4. FIRST AID MEASURES**First aid measures****General advice**

IF exposed or concerned: Get medical advice/attention

Eye contact

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.

Skin Contact

Wash off immediately with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Ingestion

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

Most important symptoms and effects, both acute and delayed**Symptoms**

rash, Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. May cause sensitization by skin contact.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None.

Specific hazards arising from the chemical

Very toxic to aquatic life. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Hazardous combustion products Carbon oxides.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing dust/fume/gas/mist/vapors/spray. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Avoid creating dust.

Environmental precautions

Environmental precautions Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Collect spillage. See Section 12 for additional ecological information. Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant.

Methods and material for containment and cleaning up

Methods for containment Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.

Methods for cleaning up Use personal protective equipment as required. Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid breathing dust/fume/gas/mist/vapors/spray. Use personal protective equipment as required. Avoid generation of dust. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

Incompatible materials Strong oxidizing agents. Alkali, Copper,

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH:
Hydroquinone 123-31-9	TWA: 1 mg/m ³	TWA: 2 mg/m ³ (vacated) TWA: 2 mg/m ³	IDLH: 50 mg/m ³ Ceiling: 2 mg/m ³ 15 min

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH: Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Suitable protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations Do not eat, drink or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended. Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid	Odor	Odorless
Appearance	beige		
Odor threshold	No information available		
Property	Values	Remarks • Method	
pH	Not applicable	None known	
Melting point/freezing point	171 °C / 339 °F		
Boiling point / boiling range	177 °C / 351 °F	None known	
Flash point			
Evaporation rate	Not applicable	None known	
Flammability (solid, gas)	No data available	Upper flammability limits	No data available
		Lower flammability limit	No data available
		Vapor pressure	1 mmHg
		Vapor density	3.81
		Specific Gravity	No data available
		Water solubility	No data available
		Solubility in other solvents	No data available
		Partition coefficient	No data available
		Autoignition temperature	No data available
		Decomposition temperature	No data available
Other Information			
Softening point	No data available		
Molecular weight	Not applicable		
Density	No information available		

Bulk density No information available

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidizing agents. Alkali, Copper,

Hazardous Decomposition Products

Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.
Eye contact	Causes serious eye damage.
Skin Contact	No data available.
Ingestion	Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydroquinone 123-31-9	= 298 mg/kg (Rat)	= 74800 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms None known.

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

Serious eye damage/eye irritation	Risk of serious damage to eyes.
Sensitization	May cause sensitization by skin contact.
Germ cell mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B)

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydroquinone 123-31-9	A3	Group 3		

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Not classifiable as a human carcinogen

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.

Target Organ Effects
Aspiration hazardCentral nervous system, Eyes, Respiratory system, Skin.
No information available.**Unknown Acute Toxicity**

0% of the mixture consists of ingredient(s) of unknown toxicity

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

1% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Toxicity to Fish	Toxicity to Algae	Daphnia magna (Water Flea)	Toxicity to microorganisms
Hydroquinone 123-31-9	LC50 96 h: 0.1 - 0.18 mg/L static Pimephales promelas LC50 96 h: = 0.044 mg/L flow-through Oncorhynchus mykiss LC50 96 h: = 0.044 mg/L flow-through Pimephales promelas LC50 96 h: = 0.17 mg/L Brachydanio rerio	EC50 72 h: = 0.335 mg/L Pseudokirchneriella subcapitata EC50 120 h: = 13.5 mg/L Desmodesmus subspicatus	EC50 48 h: = 0.29 mg/L Daphnia magna	

Bioaccumulation

No information available.

Mobility

No information available.

Persistence and degradability

READILY BIODEGRADABLE.

Chemical Name	Partition coefficient
Hydroquinone 123-31-9	0.5

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes**

This material, as supplied, is not a hazardous waste according to state and federal regulations (40 CFR 261)

Contaminated packaging

Do not reuse container.

14. TRANSPORT INFORMATION**Note:**

Per 49 CFR 172.504(f)(9) – A Class 9 Placard is not required for Domestic Transportation. However, BULK packaging must be marked with the appropriate UN Identification Number on a CLASS 9 label.

DOT

UN/ID No	UN3077
Proper shipping name	Environmentally hazardous substances, solid, n.o.s.
Hazard Class	9
Packing Group	III
Reportable Quantity (RQ)	Hydroquinone; RQ kg = 45.86
Description	UN3077, Environmentally hazardous substances, solid, n.o.s., (Hydroquinone), 9, III
Emergency Response Guide	171

Number**TDG**

UN/ID No UN3077
Proper shipping name Environmentally hazardous substances, solid, n.o.s.
Hazard Class 9
Packing Group III
Marine pollutant This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO.
Description UN3077, Environmentally hazardous substances, solid, n.o.s., (Hydroquinone), 9, III

MEX

UN/ID No UN3077
Hazard Class 9
Packing Group III
Description UN3077, Environmentally hazardous substances, solid, n.o.s., (Hydroquinone), 9, III

UN/ID No UN3077
Hazard Class 9
Packing Group III
Description UN3077, Environmentally hazardous substances, solid, n.o.s., (Hydroquinone), 9, III

IATA

UN/ID No UN3077
Hazard Class 9
Packing Group III
ERG Code 9L
Description &UN3077& (Hydroquinone),9,III,MP

IMDG

UN/ID No UN3077
Packing Group III
EmS-No F-A,S-F
Marine pollutant This material meets the definition of a marine pollutant
Description UN3077, Environmentally hazardous substances, solid, n.o.s., (Hydroquinone), 9, III

UN/ID No UN3077
Hazard Class 9
Packing Group III
Description UN3077, Environmentally hazardous substances, solid, n.o.s., (Hydroquinone), 9, III

UN/ID No UN3077
Hazard Class 9
Packing Group III
Tunnel restriction code (E)
Description UN3077, Environmentally hazardous substances, solid, n.o.s., (Hydroquinone), 9, III

UN/ID No UN3077
Hazard Class 9
Packing Group III
Classification code M7
Special Provisions 274, 335, 601
Description UN3077, Environmental hazardous substances, solid, n.o.s. (Hydroquinone), 9,III, MP
Limited quantity (LQ) 5 kg

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Hydroquinone 123-31-9 (99+)	X	X	Present		Present	X	Present	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Hydroquinone - 123-31-9	123-31-9	99	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Hydroquinone 123-31-9	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hydroquinone 123-31-9	X	X	X

International Regulations

Mexico - Grade

Moderate risk, Grade 2

Chemical Name	Carcinogenicity	Exposure Limits
Hydroquinone	A3	Mexico: TWA 2 mg/m ³

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

D1B - Toxic materials
 D2B - Toxic materials



16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 2*	Flammability 1	Physical hazards 0	Personal protection -
	* = Chronic Health Hazard			

Revision Date 29-Aug-2017

Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

End of Safety Data Sheet