SAFETY DATA SHEET（SDS）

p-Benzoquinone

Version: 1.01-EN Creation

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

Product identifier

Product name:	p-Benzoquinone
Alternative name (s):	4-Benzoquinone, Quinone
CAS No.:	106-51-4
Molecular Formula:	$C_6H_4O_2$

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

Relevant identified uses:	Laboratory chemicals, Industrial & for professional use only.
Uses advised against:	Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company Name:	Qualitron Chemicals
Address:	312, Industrial Estate, G.I.D.C. Panoli 394116, Dist. Bharuch,Gujarat,India
Phone:	+91 93777 02792 , +91 93777 02791
E-mail:	info@qualitron.net

Emergency telephone number

Emergency Phone #:	+91 93777 02792

SECTION 2: Hazards identification

Emergency Overview

Harmful if swallowed. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. Very toxic to aquatic life with long lasting effects.

GHS Classification

Flammable solids:	Category 1
Acute toxicity (Oral):	Category 3
Acute toxicity (Inhalation):	Category 3
Skin corrosion/irritation:	Category 2

Serious eye damage/eye irritation: Category 2A
Skin sensitization: Category 1
Germ cell mutagenicity: Category 2

Specific target organ toxicity - single exposure：Category 3

Short-term (acute) aquatic hazard: Category 1 Long-term (chronic) aquatic hazard: Category 1 Hazard Pictogram:

Signal Words:	DANGER!
Hazard Statement(s):	H228 Flammable solid. H301 + H331 Toxic if swallowed or if inhaled. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention:	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment. P261 Avoid breathing dust. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:	P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth. P302 + P352 IF ON SKIN: Wash with plenty of water. P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 If exposed or concerned: Get medical advice/ attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. P391 Collect spillage.
Storage:	P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.

Disposal:	P501 Dispose of contents/ container to an approved waste disposal plant.

SECTION 3: Composition/information on ingredients

Chemical name	CAS No.	Concentration (% w/w)
Quinone	106-51-4	≤100

SECTION 4: First aid measures

General advice:	If symptoms persist, call a physician.
In case of eye contact:	Rinse out with plenty of water. Immediately call in ophthalmologist.
In case of skin contact:	Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
If inhaled:	Move to fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.
If swallowed:	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Most important symptoms and effects:	No additional information available.
Protection of first-aiders:	For personal protection.
Notes to physician:	Treat symptomatically.

SECTION 5: Firefighting measures

Suitable extinguishing media:	Water, Foam, Carbon dioxide (CO2), Dry powder.
Unsuitable extinguishing media:	For this substance/mixture no limitations of extinguishing agents are given.
Specific hazards during fire fighting:	Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

Hazardous combustion products:	Carbon oxides
Specific extinguishing methods:	Prevent fire extinguishing water from contaminating surface water or the ground water system.
Special protective equipment for fire-fighters:	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.
Environmental precautions:	Do not let product enter drains.
Methods and materials for containment and cleaning up :	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7: Handling and storage

Handling:	Wear personal protective equipment/face protection. Provision of sufficient ventilation. Avoid dust formation Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.
Storage:	Store in a dry and well-ventilated place. Keep away from fire and heat sources. Keep container closed. Air sensitive. Keep away from reducing agents, anhydrides, alkalis, strong oxidants and food. Be equipped with corresponding types and quantities of fire-fighting equipment. Be equipped with appropriate materials to contain the leaked substances.

SECTION 8: Exposure controls/personal protection

Occupational Exposure Limits

Maximum admissible concentration:	No data available
TWA:	0.4 mg/m^3
STEL:	No data available

Personal protective equipment

Respiratory Protection:	Respiratory protection necessary at: Dust formation, wear a self-priming filtering dust mask. In case of emergency rescue or evacuation, an air respirator should be worn.
Eye/face protection:	Use safety goggle with side protection.
Body Protection:	Wear anti-toxic substance penetration work clothes.
Hand protection:	Wear rubber gloves

SECTION 9: Physical and chemical properties

Appearance:	Yellow powder solid
Odor:	Pungent
Odor Threshold:	No data available
pH:	No data available
Melting point:	113-115 ℃
Boiling point:	No data available
Flash point:	No data available
Upper explosion limit / Upper flammability limit:	No data available
Lower explosion limit / Lower flammability limit:	No data available
Vapor pressure:	0.133 hPa（25 ℃）
Relative vapor density:	4.33
Density:	1.32 g/cm^3(20 ℃)
Water solubility:	14.7 g/L completely soluble(20 ℃)
Partition coefficient: n-octanol/water:	0.1-0.3
Autoignition temperature:	No data available No
Decomposition temperature:	data available

SECTION 10: Stability and reactivity

Chemical stability:	The material is stable under normal conditions.
Reactivity:	It reacts vigorously with alkali and strong reducing agents.
Conditions to avoid:	Strong heating
Incompatible Materials:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon Dioxide. Carbon Monoxide.

SECTION 11: Toxicological information

Information on toxicological effects

Component	LD_{50}(Oral)	LD_{50}(Dermal)	LC_{50}(Inhalation)

Quinone	130 mg/kg(Rat)	No data available	No data available

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

Specific target organ toxicity - single exposure: No data available

Specific target organ toxicity - repeated exposure: No data available

SECTION 12: Ecological information

Ecotoxicity: LC_{50}=0.04-0.125 mg/L (96h) (rainbow trout)
EC_{50}=1-3.5 mg/L (24h) (Water flea)
EC_{50}=0.08 mg/L (4h) (Pseudokirchneriella subcapitata)

Persistence and No data available

Bioaccumulation/ Accumulation: No data available

Mobility: No data available

SECTION 13: Disposal considerations

Product: Dispose of waste and residues in accordance with local authority.

Contaminated packaging: Dispose of waste and residues in accordance with local authority.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
UN-No	UN2587	UN2587	UN2587
Technical Name	BENZOQUINONE	BENZOQUINONE	BENZOQUINONE
Hazard Class	6.1	6.1	6.1
Packing Group	II	II	II

Further information

Before transportation, it is necessary to check whether the packaging containers are intact and sealed. During transportation, it is essential to ensure that the containers do not leak, collapse, fall or get damaged. It is strictly prohibited to transport together with acids, oxidants, food and food additives. During transportation, it should be protected from exposure to sunlight, rain and high temperatures.

SECTION 15: Regulatory information National regulatory information

Component	EINECS	TSCA	IECSC
Quinone	Listed	Listed	Listed

EINECS European Inventory of Existing commercial Chemical Substances TSCA

US Toxic Substances Control Act

IECSC Inventory of Existing Chemical Substances in China

SECTION 16: Other information Revision Information

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Reasons for revision: New SDS

Disclaimer

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