

Material Safety Data Sheet

Benzoquinone (para-) MSDS

Section 1: Chemical Product and Company Identification

Product Name: Benzoquinone (para-)

CAS#: 106-51-4

RTECS: DK2625000

TSCA: TSCA 8(b) inventory: Benzoquinone (para-)

CI#: Not available.

Synonym: 1,4-Benzoquinone

Chemical Name: Quinone

Chemical Formula: C₆H₄O₂

Contact Information:

GAJANAN ENTERPRISES

A – 300, TTC INDUSTRIAL AREA, MIDC, MAHAPE, NAVI MUMBAI 400 710. INDIA

Section 2: Hazards Identification

Potential Acute Health Effects:

Extremely hazardous in case of eye contact (irritant), of ingestion. Very hazardous in case of skin contact (corrosive, irritant), of inhalation. Hazardous in case of skin contact (permeator). The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death.

Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

2.1 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Hazard statement(s)

H228

H301 + H331

H314

H317

H335

H341

H410

Flammable solid.

Toxic if swallowed or if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

May cause respiratory irritation.

Suspected of causing genetic defects.

Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210

Keep away from heat, hot surfaces, sparks, open



P260	flames and other ignition sources. No smoking.
P280	Do not breathe dusts or mists.
P303 + P361 + P353	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P304 + P340 + P310	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
comfortable	IF INHALED: Remove person to fresh air and keep for breathing. Immediately 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.

Supplemental Hazard Statements : none

Potential Chronic Health Effects:

Extremely hazardous in case of eye contact (irritant), of ingestion.

Very hazardous in case of skin contact (corrosive, irritant), of inhalation.

Hazardous in case of skin contact (permeator).

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Section 3: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Benzoquinone (para-)	106-51-4	100

Toxicological Data on Ingredients: Benzoquinone (para-): ORAL (LD50): Acute: 130 mg/kg [Rat].

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream.

Seek immediate medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: 560°C (1040°F)

Flash Points: CLOSED CUP: 77°C (170.6°F). (Setaflash.)

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances: Not available.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Material in powder form, capable of creating a dust explosion.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill:

Corrosive solid. Poisonous solid.

Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:

Keep locked up.. Keep container dry. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material.

Do not ingest. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label.

Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Protect from direct heat and sunlight.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 0.1 CEIL: 0.3

TWA: 0.4 CEIL: 2

Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Crystalline solid.)

Odor: Pungent.

Taste: Not available.

Molecular Weight: 108 g/mole

Color: Yellowish Green

pH (1% soln/water): Not available.

Boiling Point: Decomposes.

Melting Point: 115.7°C (240.3°F)

Critical Temperature: Not available.

Specific Gravity: 1.318 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: 3.7 (Air = 1)

Volatility: Not available.

Odor Threshold: 0.1 ppm

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility: Partially soluble in cold water, hot water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 50 mg/kg [Rat].

Acute dermal toxicity: LD50 : 130 mg/kg

Acute inhalation toxicity: LC50 mg/L : 4h – 0.51 mg/L

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans:

Extremely hazardous in case of ingestion.

Very hazardous in case of skin contact (corrosive, irritant), .

Hazardous in case of skin contact (permeator), of eye contact (corrosive), of inhalation (lung corrosive).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Consideratio

Waste Disposal:

Section 14: Transport Information

UN number

ADR/RID: 2587

IMDG: 2587

IATA: 2587

UN proper shipping name

ADR/RID: BENZOQUINONE

IMDG: BENZOQUINONE

IATA: Benzoquinone

Transport hazard class(es)

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

Packaging group

ADR/RID: II

IMDG: II

IATA: II

UN number 2587
UN proper shipping name: BENZOQUINONE

(contains benzoquinone)

Transport hazard class(es) :Class 6.1Subrisk Not

Applicable

Packing group II
Environmental hazard Environmentally hazardous.

Special precautions for user

Hazard identification (Kemler) 60

Classification code T2

Hazard Label 6.1

Special provisions Not Applicable

Limited quantity 500 g

Tunnel Restriction Code : 2 (D/E).

Air transport (ICAO-IATA / DGR).
UN number 2587
UN proper shipping name Benzoquinone

(contains benzoquinone)

Transport hazard class(es) ICAO/IATA Class 6.1

ICAO / IATA Subrisk Not Applicable

ERG Code 6L

Packing group II
Environmental hazard Environmentally hazardous

Special precautions for user

Special provisions Not Applicable

Cargo Only Packing Instructions 676

Cargo Only Maximum Qty / Pack 100 kg

Passenger and Cargo Packing Instructions 669

Passenger and Cargo Maximum Qty / Pack 25 kg

Passenger and Cargo Limited Quantity Packing

Instructions Y644

Passenger and Cargo Limited Maximum Qty / Pack 1
kg

Sea transport (IMDG-Code / GGVSee)

UN number 2587

UN proper shipping name: BENZOQUINONE

(contains benzoquinone)

Transport hazard class(es)

IMDG Class 6.1

IMDG Subrisk Not Applicable

Packing group II

Environmental hazard Marine Pollutant

Special precautions for user

EMS Number F-A , S-A

Special provisions Not Applicable.

Limited Quantities 500 g.

Inland waterways transport (ADN).

UN number 2587

UN proper shipping name BENZOQUINONE

(contains benzoquinone)

Transport hazard class(es) 6.1 Not Applicable

Packing group II

Environmental hazard Environmentally hazardous

Special precautions for user

Classification code T2

Special provisions 802

Limited quantity 500 g

Equipment required PP, EP

Fire cones number 2.

**Transport in bulk according to Annex II of MARPOL
and the IBC code : Not Applicable**

**Transport in bulk in accordance with MARPOL
Annex V and the IMSBC Code.**

Product Name – benzoquinone.

Group – Not Available.

Transport in bulk in accordance with the ICG Code.

Product Name – benzoquinone.

Ship Type – Not Available.

Section 15: Other Regulatory Information

Federal and State Regulations:

Pennsylvania RTK: Benzoquinone (para-)

Massachusetts RTK: Benzoquinone (para-)

TSCA 8(b) inventory: Benzoquinone (para-)

SARA 313 toxic chemical notification and release reporting: Benzoquinone (para-)

CERCLA: Hazardous substances.: Benzoquinone (para-)

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada):

CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).

CLASS D-2B: Material causing other toxic effects (TOXIC).

CLASS E: Corrosive solid.

DSCL (EEC):

R25- Toxic if swallowed.

R34- Causes burns.

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 2

Reactivity: 0

Personal Protection: j

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 2

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves.

Synthetic apron.

Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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