



## Safety Data Sheet

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

Product identifier:

Product name: Benzoyl peroxide(wet)

SDS No. : 0826E-3

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

Research and Development

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

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

Division: Chemical Safety Management Department

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

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### Section 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

PHYSICAL AND CHEMICAL HAZARDS

Organic peroxides: Type C

HEALTH HAZARDS

Serious eye damage/eye irritation: Category 2

Skin sensitization: Category 1

Specific target organ toxicity – single exposure: Category 3 (Respiratory tract irritation)

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment, short-term (acute): Category 1

(Note) GHS classification without description: Not classified/Classification not possible

Label elements



Signal word: Danger

HAZARD STATEMENT

H242 Heating may cause a fire

H319 Causes serious eye irritation

H317 May cause an allergic skin reaction

H335 May cause respiratory irritation

H400 Very toxic to aquatic life

PRECAUTIONARY STATEMENT

Prevention

P273 Avoid release to the environment.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P234 Keep only in original packaging.

P235 Keep cool.

P240 Ground and bond container and receiving equipment.



- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P271 Use only outdoors or in a well-ventilated area.
- P264 Wash contaminated parts thoroughly after handling.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

- P370 + P378 In case of fire: Use appropriate media to extinguish.
- P391 Collect spillage.
- P312 Call a POISON CENTER/doctor/physician if you feel unwell.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
- P362 + P364 Take off contaminated clothing and wash it before reuse.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 If eye irritation persists: Get medical advice/attention.

**Storage**

- P403 Store in a well-ventilated place.
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P410 Protect from sunlight.
- P411 Store at temperatures not exceeding specified values.
- P420 Store separately.

**Disposal**

- P501 Dispose of contents/container in accordance with local/national regulation.

**Specific adverse human health effects**

See "11. Toxicological Information".

**Section 3. Composition/information on ingredients**

Mixture/Substance selection:

Mixture

Ingredient name	Content (%)	CAS No.	ENCS	Chemical formula
Benzoyl peroxide	≥ 73	94-36-0	3-1349	(C <sub>6</sub> H <sub>5</sub> CO) <sub>2</sub> O <sub>2</sub>
Water	25	7732-18-5	-	H <sub>2</sub> O

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

**Section 4. First-aid measures**

Descriptions of first-aid measures

General measures

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

**IF INHALED**

Remove person to fresh air and keep comfortable for breathing.

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

**IF INHALED:** Call a POISON CENTER/doctor/physician if you feel unwell.

**IF ON SKIN**

Take off immediately all contaminated clothing. Rinse skin with water or 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.

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

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**Section 5. Fire-fighting measures**

## Extinguishing media

## Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

In case of fire, use water mist or loaded liquid, foam, dry sand to extinguish.

\*Fire Service Act Group 5 Hazardous Materials

## Unsuitable extinguishing media

Carbon Dioxide/ Halon Extinguishing System

Dry Chemical Extinguishing System-Using Phosphates, etc./Using Hydrogen Carbonates , etc./Others (except for phosphates etc., Hydrogen Carbonates etc.)

Fire Extinguisher Discharging Carbon Dioxide/Halogenide

Fire Extinguisher Discharging Dry Extinguishing agents- Using Phosphates, etc./Using Hydrogen Carbonates, etc./Others (except for phosphates etc., Hydrogen Carbonates etc.)

\*Cabinet Order Concerning the Control of Hazardous Materials (Attached Table 5) Group 5 Hazardous Materials

## Specific hazards arising from the substance or mixture

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

Runoff from fire control or dilution water may cause pollution.

See "10.Stability and Reactivity".

## Advice for firefighters

## Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

## Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.

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

Firefighters should wear self-contained breathing apparatus with a full facepiece operated in the positive pressure mode.

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**Section 6. Accidental release measures**

## Personnel precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

## Environmental precautions

Prevent spills from entering sewers, watercourses, low areas or rivers. To be careful not discharged to the environment without being properly handled waste water contaminated.

## Methods and materials for containment and cleaning up

Liquid: Absorb spill with inert material (dry sand, earth, et al), then place in a chemical



waste container.

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

Preventive measures for secondary accident

Collect spillage.

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## Section 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, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Ground and bond container and receiving equipment.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Use only outdoors or in a well-ventilated area.

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

Wash hands et al thoroughly after handling.

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.

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 locked up. (P405)

Store at temperatures not exceeding specified values.

Chilled storage.

Storage in accordance with local/national regulation.

(Incompatible storage condition)

Protect from sunlight.

Store separately.

Container and packaging materials for safe handling

Keep only in original packaging.

Use closed unbreakable containers.

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## Section 8. Exposure controls/personal protection

Control parameters

Administrative Control Levels and Concentration standard value

Not established

**Occupational Exposure Limit**

The Japan Society for Occupational Health

(Other inorganic and organic dust (third class dust ))

JSOH Respirable dust 2mg/m<sup>3</sup>, Total dust 8mg/m<sup>3</sup>

**ACGIH**

(Benzoyl peroxide)

TWA: 5mg/m<sup>3</sup> (URT & skin irr)

**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**

Recommend to use protective equipment in conformity with the standards.

Use appropriate protective equipment in accordance with local/national regulation.

**Respiratory protection**

Wear respiratory protection (dust-proof mask/gas mask). Select chemical cartridge corresponding to type of gases when using a gas mask.

**Hand protection**

Wear impervious protective glove.

**Eye protection**

Wear eye/face protection. Wear safety goggles in cases gas is generated.

**Skin and body protection**

Wear protective clothing.

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**Section 9. Physical and Chemical Properties**

Information on basic physical and chemical properties

Physical state: Crystalline powder to powder

Color: Colorless to white

Odor: Characteristic odor

Melting point/Freezing point: 103~105°C

Boiling point or initial boiling point data is not available.

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: 110°C

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

pH data is not available.

Kinematic viscosity data is not available.

**Solubility:**

Solubility in water: Insoluble

Solubility in solvent data is not available.

n-Octanol/water partition coefficient data is not available.

Vapor pressure data is not available.

Density and/or relative density: 1.33

Relative vapor density (Air=1) data is not available.

Particle characteristics data is not available.

**Other information**



Other information is not available.

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**Section 10. Stability and Reactivity**

## Reactivity

Not available.

## Chemical stability

(Benzoyl peroxide)

May decompose explosively on shock, friction or concussion. (ICSC 0225)

## Possibility of hazardous reactions

(Benzoyl peroxide)

May explode on heating above 103–105°C. On combustion, forms irritating and toxic fumes and gases of benzoic acid and carbon monoxide.

The substance is a strong oxidant. It reacts violently with combustible and reducing materials. Reacts violently with many organic acids, inorganic acids, alcohols and amines.

This generates fire and explosion hazard. (ICSC 0225)

## Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

## Incompatible materials

Reducing agents, Combustible materials, Organic acids, Inorganic acids, Alcohols, Amines

## Hazardous decomposition products

Carbon oxides, Benzoic acid

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**Section 11. Toxicological Information**

## Information on toxicological effects

## Acute toxicity

## Acute toxicity (Oral)

[Data for components of the product]

[NITE-CHRIP]

(Benzoyl peroxide)

rat LD50: > 5000 mg/kg (source: NITE)

## Acute toxicity (Inhalation)

[Data for components of the product]

[NITE-CHRIP]

(Benzoyl peroxide)

dust/mist: rat LC0: > 24.3 mg/L (converted value : 19.0 mg/L) (source: NITE)

## Irritant properties

Skin corrosion/irritation data is not available.

## Serious eye damage/irritation

[Product]

Category 2, Causes serious eye irritation

[Data for components of the product]

[NITE-CHRIP]

(Benzoyl peroxide)

Category 2 (source: NITE)

## Sensitization

## Skin sensitization

[Product]



Category 1, May cause an allergic skin reaction

[Data for components of the product]

[NITE-CHRIP]

(Benzoyl peroxide)

Category 1 (source: NITE)

Mutagenic effects data is not available.

Carcinogenicity

[Data for components of the product]

[IARC]

(Benzoyl peroxide)

Group 3 : Not classifiable as to its carcinogenicity to humans

[ACGIH]

(Benzoyl peroxide)

A4: Not Classifiable as a Human Carcinogen

Reproductive toxicity data is not available.

Specific target organ toxicity (STOT)

STOT-single exposure

[Product]

Category 3, May cause respiratory irritation

[Data for components of the product]

[NITE-CHRIP]

(Benzoyl peroxide)

Category 3 (Respiratory tract irritation) (source: NITE)

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

Information on other hazards

May cause lung disorders by massive inhalation of powdered substance.

-e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

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## Section 12. Ecological Information

Toxicity

Aquatic toxicity

[Product]

Category 1, Very toxic to aquatic life

[Data for components of the product]

Hazardous to the aquatic environment, short-term (acute)

[NITE-CHRIP]

(Benzoyl peroxide)

Crustacea (Daphnia magna) 48-hour EC50: 0.07 mg/L (source: NITE)

Water solubility

(Benzoyl peroxide)

poor (source: ICSC, 2002)

Persistence and degradability

[Data for components of the product]

(Benzoyl peroxide)

Rapidly degradable (Degradation rate: 84% (by BOD)) (source: NITE)

Bioaccumulative potential

[Data for components of the product]



(Benzoyl peroxide)

log Pow: 3.46 (source: ICSC, 2002)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

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**Section 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.

Dispose of contents/container as industrial waste. Accordance with local/national regulation.

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**Section 14. Transport Information**

UN Number or ID Number : 3104

UN Proper Shipping Name :

ORGANIC PEROXIDE TYPE C, SOLID

Class or division (Transport hazard class) : 5.2

ERG GUIDE No.: 146

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : 3104

UN Proper Shipping Name :

ORGANIC PEROXIDE TYPE C, SOLID

Class or division (Transport hazard class) : 5.2

IATA (Dangerous Goods Regulations)

UN Number or ID Number : 3104

UN Proper Shipping Name :

ORGANIC PEROXIDE TYPE C, SOLID

Class or division (Transport hazard class) : 5.2

Hazard labels : Organic peroxide & keep away from heat

Environmental hazards

Marine pollutants (yes/no) : yes

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**Section 15. Regulatory Information**

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

U.S. Toxic Substances Control Act (TSCA) Inventory

Chemicals listed in TSCA Inventory

Benzoyl peroxide; Water

Other regulatory information

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

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**Section 16. Other information**

References and sources for data



Globally Harmonized System of classification and labelling of chemicals, UN  
Recommendations on the TRANSPORT OF DANGEROUS GOODS 23rd edit., 2023 UN  
IMDG Code, 2024 Edition (Incorporating Amendment 42-24)  
IATA Dangerous Goods Regulations (66th Edition) 2025  
2024 EMERGENCY RESPONSE GUIDEBOOK (US DOT)  
2025 TLVs and BEIs. (ACGIH)  
JIS Z 7252 : 2019  
JIS Z 7253 : 2019  
2024 Recommendation on TLVs (JSOH)  
Supplier's data/information

**General Disclaimer**

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Unauthorized translation or modification is prohibited.

Please provide SDS to customers for selling or transferring.

All chemicals have unknown hazard. Handle the product with care.

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 Data published in Japan (National Institute of Technology and Evaluation (NITE) Chemical Risk Information Platform (NITE-CHRIP), up to FY2023).