



## Safety Data Sheet

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

Product identifier:

Product name: Dicumyl peroxide

SDS No. : 2330E-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 F

HEALTH HAZARDS

Serious eye damage/eye irritation: Category 2B

Reproductive toxicity: Category 1B

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

Specific target organ toxicity – repeated exposure: Category 1 (nasal cavity [olfactory epithelia])

ENVIRONMENT HAZARDS

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

Hazardous to the aquatic environment, long-term (chronic): 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

H320 Causes eye irritation

H360 May damage fertility or the unborn child

H335 May cause respiratory irritation

H372 Causes damage to organs through prolonged or repeated exposure (nasal cavity [olfactory epithelia])

H410 Very toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

P202 Do not handle until all safety precautions have been read and understood.



- 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.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P271 Use only outdoors or in a well-ventilated area.  
P264 Wash contaminated parts thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P280 Use personal protective equipment as required.  
P270 Do not eat, drink or smoke when using this product.

**Response**

- P370 + P378 In case of fire: Use appropriate media to extinguish.  
P391 Collect spillage.  
P314 Get medical advice/attention if you feel unwell.  
P308 + P313 IF exposed or concerned: Get medical advice/attention.  
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.  
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".

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

Mixture/Substance selection:

Substance

Ingredient name	Content (%)	CAS No.	Chemicals No, Japan	Chemical formula
Dicumyl peroxide	98(min)	80-43-3	3-1086	C <sub>6</sub> H <sub>5</sub> C(CH <sub>3</sub> ) <sub>2</sub> OOC(C H <sub>3</sub> ) <sub>2</sub> C <sub>6</sub> H <sub>5</sub>

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

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**Section 4. First-aid measures**

Descriptions of first-aid measures

General measures



Get medical advice/attention 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 ON SKIN**

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

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.

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**

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**

Do not handle until all safety precautions have been read and understood.

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.

Do not eat, drink or smoke when using this product.

**Storage****Conditions for safe storage**

Keep container tightly closed.

Store locked up. (P405)

Store at temperatures not exceeding specified values.

Store in a cool, dry place. Do not store in direct sunlight.

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

Control value and concentration standard value are not available in ISHA.

## 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: Flake or crystalline powder

Color: Yellow to white

Odor: Characteristic odour

Melting point/Freezing point: 39°C

Boiling point or initial boiling point: (Dicumyl peroxide)(decomposes) 130°C

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: (Dicumyl peroxide)(C.C.) 71°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: log Pow5.5

Vapor pressure data is not available.

Density and/or relative density: 1.0g/cm<sup>3</sup>

Relative vapor density (Air=1): 9.3

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

Stable under normal storage/handling conditions.

## Possibility of hazardous reactions

Decomposes rapidly on heating. Decomposes rapidly under the influence of light. This generates fire and explosion hazard. Reacts violently with acids, bases, reducing agents and heavy metals. (ICSC 1346)

## Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

## Incompatible materials

Acids, Bases, Reducing agents, Heavy metals

## Hazardous decomposition products

Carbon oxides

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**Section 11. Toxicological Information**

## Information on toxicological effects

Acute toxicity data is not available.

## Irritant properties

Skin corrosion/irritation data is not available.

## Serious eye damage/irritation

[Product]

Category 2B, Causes eye irritation

[Data for components of the product]

[GHS Cat. Japan, base data]

rabbit mild irritation (DFGOT vol.3, 1992)

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

## Reproductive toxicity

[Product]

Category 1B, May damage fertility or the unborn child

[Data for components of the product]

[GHS Cat. Japan, base data]

cat. 1B; ECHA RAC, 2015

## Specific target organ toxicity (STOT)

## STOT-single exposure

[Product]

Category 3, May cause respiratory irritation

[Data for components of the product]

[cat.3 (respiratory tract irritation)]

[GHS Cat. Japan, base data]

respiratory tract irritation (ICSC, 1999)

## STOT-repeated exposure

[Product]

Category 1, Causes damage to organs through prolonged or repeated exposure



[Data for components of the product]

[cat.1]

[GHS Cat. Japan, base data]

nasal cavity [olfactory epithelia] (DFGOT vol.3, 1992)

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

Category 1, Very toxic to aquatic life with long lasting effects

[Data for components of the product]

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

[GHS Cat. Japan, base data]

Crustacea (Daphnia magna) EC50=0.262mg/L/48hr; Fish (Oryzias latipes) LC50=0.469mg/L/96hr (MOE Results of Eco-toxicity tests of chemicals, 1999)

Hazardous to the aquatic environment, long-term (chronic)

[GHS Cat. Japan, base data]

Crustacea (Daphnia magna) NOEC=0.117mg/L/21days (MOE Results of Eco-toxicity tests of chemicals, 1999)

Water solubility

none (ICSC, 1999)

Persistence and degradability

[Data for components of the product]

Not rapidly degradable (BOD\_Degradation : 0% (METI Existing Chemical Substances Safety Inspections Data, 1984))

Bioaccumulative potential

[Data for components of the product]

log Pow=5.5 (ICSC, 1999)

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 : 3110

UN Proper Shipping Name :

ORGANIC PEROXIDE TYPE F, SOLID

Class or division (Transport hazard class) : 5.2

ERG GUIDE No.: 145

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : 3110

UN Proper Shipping Name :

ORGANIC PEROXIDE TYPE F, SOLID

Class or division (Transport hazard class) : 5.2

IATA (Dangerous Goods Regulations)

UN Number or ID Number : 3110

UN Proper Shipping Name :

ORGANIC PEROXIDE TYPE F, 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

Applicable

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 22nd edit., 2021 UN

IMDG Code, 2022 Edition (Incorporating Amendment 41-22)

IATA Dangerous Goods Regulations (65th Edition) 2024

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2024 TLVs and BEIs. (ACGIH)

JIS Z 7252 : 2019

JIS Z 7253 : 2019

2023 Recommendation on TLVs (JSOH)

Supplier's data/information

General Disclaimer

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 Japan official data (NITE published in 2022).