



Safety Data Sheet

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

Product identifier:

Product name: Hydrogen peroxide

SDS No. : 3765E-6

Recommended use of the chemical and restrictions on use

Research and Development, Food additives (Conforming product for Japan's Specifications and Standards for Food Additives only)

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

Section 2. Hazards identification

Classification of the substance or mixture

PHYSICAL AND CHEMICAL HAZARDS

Oxidizing liquids: Category 2

HEALTH HAZARDS

Acute toxicity (Oral): Category 4

Acute toxicity (Dermal): Category 3

Acute toxicity (Inhalation): Category 2

Skin corrosion/irritation: Category 1

Serious eye damage/eye irritation: Category 1

Carcinogenicity: Category 2

Specific target organ toxicity – single exposure: Category 1 (respiratory system)

Specific target organ toxicity – repeated exposure: Category 1 (respiratory system)

ENVIRONMENT HAZARDS

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

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

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements

H272 May intensify fire; oxidizer

H302 Harmful if swallowed

H311 Toxic in contact with skin

H330 Fatal if inhaled

H314 Causes severe skin burns and eye damage

H351 Suspected of causing cancer

H370 Causes damage to organs (respiratory system)



H372 Causes damage to organs through prolonged or repeated exposure (respiratory system)

H400 Very toxic to aquatic life

Precautionary statements

Prevention

- P203 Obtain, read and follow all safety instructions before use.
- P273 Avoid release to the environment.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P220 Keep away from clothing and other combustible materials.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P284 In case of inadequate ventilation wear respiratory protection.
- P271 Use only outdoors or in a well-ventilated area.
- P264 Wash hands thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P264 + P265 Wash hands thoroughly after handling. Do not touch eyes.
- 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.
- P308 + P316 IF exposed or concerned: Get emergency medical help immediately.
- P316 Get emergency medical help immediately.
- P317 Get medical help.
- P318 IF exposed or concerned, get medical advice.
- P319 Get medical help 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 water.
- P302 + P361 + P354 IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.
- P363 Wash contaminated clothing before reuse.
- P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.
- P305 + P354 + P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P330 IF SWALLOWED: Rinse mouth.
- P301 + P317 IF SWALLOWED: Get medical help.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.

Disposal

- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Specific danger/hazard

Health hazard

See "11. Toxicological Information".



Section 3. Composition/information on ingredients

Substance/mixture:

Mixture

Ingredient name	Content (%)	CAS RN	ENCS	Chemical formula
Hydrogen peroxide	30-36	7722-84-1	1-419	H2O2
Water	64-70	7732-18-5	-	H2O

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

Section 4. First aid measures

Descriptions of first aid measures

General measures

IF exposed or concerned, get medical advice.

Get medical help if you feel unwell.

IF exposed or concerned: Get emergency medical help immediately.

IF INHALED

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Get emergency medical help immediately.

Get medical help if you feel unwell.

IF ON SKIN

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water or shower.

If experiencing skin: Get emergency medical help immediately.

If you observe unusual symptom, have irritation/pain and/or feel unwell, seek medical advice.

IF IN EYES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Rinse in order to better reach all parts of eyes.

Remove all chemicals from contact with the victim's eyes immediately. A delay of only seconds may increase the injury.

If experiencing eye: Get medical help.

IF SWALLOWED

Rinse mouth.

Do NOT induce vomiting.

IF SWALLOWED: Get emergency medical help immediately.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

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

Special extinguishing method

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.

Section 6. Accidental release measures

Personal 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.

Section 7. Handling and storage

Precautions for safe handling

Engineering measures

(Measures to prevent operator exposure)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Measures to prevent fire and explosion)

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

Keep away from clothing and other combustible materials.

(Local ventilation/general ventilation)

Use adequate general or local exhaust ventilation.

(Precautions)

Avoid contact with skin.

Avoid contact with eyes.

Advice on safe handling

Obtain, read and follow all safety instructions before use.

Use only outdoors or in a well-ventilated area.

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

Wash hands and contaminated parts thoroughly after handling.

When using do not eat, drink or smoke.

Avoidance of contact

See Section 10: Stability and Reactivity.

Advice on general occupational hygiene



Wash hands thoroughly after handling. Do not touch eyes.

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

Take off immediately all contaminated clothing and wash it before reuse.

Conditions for safe storage, including any incompatibilities

Conditions for safe storage

Store locked up. (P405)

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

Storage in accordance with local/national regulation.

Safe packaging material

Store in vented containers.

Don't overturn containers.

Section 8. Exposure controls/personal protection

Control parameters

Permissible concentration

Administrative Control Levels and Concentration standard value

(Hydrogen peroxide)

Concentration standard value TWA: 0.5ppm

Occupational exposure limit values

ACGIH

(Hydrogen peroxide)

TWA: 1ppm (Eye, URT & skin irr)

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Washing facilities should be available.

Individual protection measures, such as personal protective equipment

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.

Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials as needed.

Inspect before use and replace worn or damaged gloves.

Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions as needed.

Eye/face protection

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

Skin and body protection

Wear protective clothing.

Personal protective equipment for the body and skin should be selected based on the task being performed and the risks involved.

Section 9. Physical and Chemical Properties

Physical state: Liquid

Color: Colorless, Clear



Odor: Irritant odor

Melting point/Freezing point data is not available.

Boiling point, initial boiling point, or boiling range data is not available.

Flammability data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Flash point data is not available.

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: Soluble

Solubility in solvent data is not available.

Partition coefficient n-octanol/water data is not available.

Vapor pressure data is not available.

Density and/or relative density: 1.13

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

Particle characteristics data is not available.

Other information

Other information is not available.

Section 10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

(Hydrogen peroxide)

Decomposes under the influence of light. Decomposes on warming. This produces oxygen. This increases fire hazard. The substance is a strong oxidant. It reacts violently with combustible and reducing materials. This generates fire and explosion hazard particularly in the presence of metals. Attacks many organic substances such as textiles and paper.

(ICSC 0164)

Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

Incompatible materials

Reducing agents, Metals, Combustible materials

Hazardous decomposition products

Not available.

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[Product]

Category 4, Harmful if swallowed

[Data for components of the product]



[NITE-CHRIP]

(Hydrogen peroxide)

rat LD50: 805 mg/kg (source: NITE)

Acute toxicity (Dermal)

[Product]

Category 3, Toxic in contact with skin

[Data for components of the product]

[NITE-CHRIP]

(Hydrogen peroxide)

rabbit LD50: 690 mg/kg (test substance: 90% Solution of this substance) (source: NITE)

Acute toxicity (Inhalation)

[Product]

Category 2, Fatal if inhaled

[Data for components of the product]

[NITE-CHRIP]

(Hydrogen peroxide)

vapor: rat LC50: 2000 mg/m³ (4-hour) (source: NITE)

aerosol: mouse LC50: 920 – 2000 mg/m³ (2-hour) (converted 4-hour equivalent value: 0.46 – 1.00 mg/L) (test substance: 90% solution of this substance) (source: NITE)

Skin corrosion/irritation

[Product]

Category 1, Causes severe skin burns and eye damage

[Data for components of the product]

[NITE-CHRIP]

(Hydrogen peroxide)

Category 1 (source: NITE)

Serious eye damage/irritation

[Product]

Category 1, Causes serious eye damage

[Data for components of the product]

[NITE-CHRIP]

(Hydrogen peroxide)

Category 1 (source: NITE)

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenicity

[Product]

Category 2, Suspected of causing cancer

[Data for components of the product]

[NITE-CHRIP]

(Hydrogen peroxide)

Category 2 (source: NITE)

[IARC]

(Hydrogen peroxide)

Group 3 : Not classifiable as to its carcinogenicity to humans

[ACGIH]

(Hydrogen peroxide)

A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans

Reproductive toxicity data is not available.

Specific target organ toxicity – single exposure



[Product]

Category 1, Causes damage to organs

[Data for components of the product]

[NITE-CHRIP]

(Hydrogen peroxide)

Category 1 (respiratory system) (source: NITE)

Specific target organ toxicity – repeated exposure

[Product]

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

[Data for components of the product]

[NITE-CHRIP]

(Hydrogen peroxide)

Category 1 (respiratory system) (source: NITE)

Aspiration hazard data is not available.

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]

(Hydrogen peroxide)

Algae (*Nitzschia closterium*) 72-hour EC50: 0.85 mg/L (source: NITE)

Crustacea (*Daphnia magna*) 24-hour EC50: 2.3 mg/L (source: NITE)

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

[NITE-CHRIP]

(Hydrogen peroxide)

Algae (*Chlorella vulgaris*) 72-hour NOEC: 0.1 mg/L (source: NITE)

Water solubility

(Hydrogen peroxide)

miscible (source: ICSC, 2018)

Persistence and degradability

[Data for components of the product]

(Hydrogen peroxide)

Rapidly degradable (source: NITE)

Bioaccumulative potential

[Data for components of the product]

(Hydrogen peroxide)

log Pow: -1.36 (source: ICSC, 2018)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

Section 13. Disposal considerations

Waste treatment methods



Waste from residues, Contaminated packing

Avoid release to the environment.

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

Section 14. Transport Information

UNRTDG

UN number : UN2014

UN Proper Shipping Name : HYDROGEN PEROXIDE, AQUEOUS SOLUTION with 20% or more but 40% or less hydrogen peroxide (stabilized as necessary)

Transport hazard class(es) : 5.1

Subsidiary hazard(s) : 8

Packing group : II

IMDG Code (International Maritime Dangerous Goods Regulations)

UN number : UN2014

UN Proper Shipping Name : HYDROGEN PEROXIDE, AQUEOUS SOLUTION with 20% or more but 40% or less hydrogen peroxide (stabilized as necessary)

Transport hazard class(es) : 5.1

Subsidiary hazard(s) : 8

Packing group : II

IATA (Dangerous Goods Regulations)

UN number : UN2014

UN Proper Shipping Name : HYDROGEN PEROXIDE, AQUEOUS SOLUTION with 20% or more but 40% or less hydrogen peroxide (stabilized as necessary)

Transport hazard class(es) : 5.1

Subsidiary hazard(s) : 8

Hazard labels : Oxidizer & Corrosive

Packing group : II

Environmental hazards

Marine pollutants (yes/no) : yes

Environmentally hazardous substance/mixture (yes/no) : yes

ERG GUIDE No.: 140

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

Hydrogen peroxide; Water

Other regulatory information

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

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 (67th Edition) 2026
2024 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2026 TLVs and BEIs. (ACGIH)
JIS Z 7252 : 2025
JIS Z 7253 : 2025
Recommendation of occupational exposure limits (2024-2025) (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 FY2024).