



Safety Data Sheet

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

Product identifier:

Product name: 2-Naphthol(β -)

SDS No. : 5320E-4

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

Section 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Acute toxicity (Oral): Category 4

Acute toxicity (Inhalation): Category 4

Serious eye damage/eye irritation: Category 1

Skin sensitization: Category 1

Specific target organ toxicity – single exposure: Category 1 (blood system, central nervous system, kidneys)

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

Specific target organ toxicity – repeated exposure: Category 1 (blood system, liver, nervous system, kidneys, urinary bladder)

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment, short-term (acute): Category 2

Hazardous to the aquatic environment, long-term (chronic): Category 3

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

Label elements



Signal word: Danger

HAZARD STATEMENT

H302 Harmful if swallowed

H332 Harmful if inhaled

H318 Causes serious eye damage

H317 May cause an allergic skin reaction

H370 Causes damage to organs (blood system, central nervous system, kidneys)

H335 May cause respiratory irritation

H372 Causes damage to organs through prolonged or repeated exposure (blood system, liver, nervous system, kidneys, urinary bladder)



H401 Toxic to aquatic life

H412 Harmful to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

P273 Avoid release to the environment.

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.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear eye protection/face protection.

P270 Do not eat, drink or smoke when using this product.

Response

P314 Get medical advice/attention if you feel unwell.

P310 Immediately call a POISON CENTER/doctor/physician.

P312 Call a POISON CENTER/doctor/physician if you feel unwell.

P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor/physician.

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.

P330 IF SWALLOWED: Rinse mouth.

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.

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/national regulation.

Specific adverse human health effects

See "11. Toxicological Information".

Section 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name	Content (%)	CAS No.	ENCS	Chemical formula
2-Naphthol	≥ 99	135-19-3	4-355	C ₁₀ H ₇ OH

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

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.

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.

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

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, inactive gases, dry powder, dry sand to extinguish.

*Fire Service Act Combustible solids or synthetic resins

Unsuitable extinguishing media

Extinguisher which discharge dry chemical fire extinguishing agents—Others (except for phosphates etc., hydrogen carbonates etc.)

*Ministerial Ordinance for Enforcement of the Fire Service Act (Appended Table 2)

Combustible solids or synthetic resins

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.

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.

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.

(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.

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

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

Keep container protect from light.

Storage in accordance with local/national regulation.

Container and packaging materials for safe handling

Use closed unbreakable containers.

Section 8. Exposure controls/personal protection

Control parameters

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

Adopted value

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

JSOH Respirable dust 2mg/m³, Total dust 8mg/m³

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.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Crystal or crystalline powder

Color: White to gray or pale pink

Odor: Characteristic odor

Melting point/Freezing point: 122°C

Boiling point or initial boiling point: (2-Naphthol)285°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: (2-Naphthol)153°C

Auto-ignition temperature: (2-Naphthol)550°C

Decomposition temperature data is not available.

pH data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: 0.074 g/100 ml (25°C)

Solubility in solvent data is not available.

n-Octanol/water partition coefficient: log Pow2.7

Vapor pressure: 2 Pa (25°C)

Density and/or relative density: 1.28 g/cm³

Relative vapor density (Air=1): 5

Particle characteristics data is not available.

Other information

Other information is not available.

Section 10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

May discolor on exposure to air.

Possibility of hazardous reactions

Dust explosion possible if in powder or granular form, mixed with air. (ICSC 0719)

Conditions to avoid



Contact with fire source.
Incompatible materials
Not available.
Hazardous decomposition products
Carbon oxides

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]

rat LD50: 1320 mg/kg (OECD TG 401) (source: NITE)

Acute toxicity (Inhalation)

[Product]

Category 4, Harmful if inhaled

[Data for components of the product]

[NITE-CHRIP]

dust/mist: rat LC50: 2.2 mg/L (4-hour) (OECD TG 403) (source: NITE)

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation

[Product]

Category 1, Causes serious eye damage

[Data for components of the product]

[NITE-CHRIP]

Category 1 (source: NITE)

Sensitization

Skin sensitization

[Product]

Category 1, May cause an allergic skin reaction

[Data for components of the product]

[NITE-CHRIP]

Category 1 (source: NITE)

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

Reproductive toxicity data is not available.

Specific target organ toxicity (STOT)

STOT-single exposure

[Product]

Category 1, Causes damage to organs

Category 3, May cause respiratory irritation

[Data for components of the product]

[NITE-CHRIP]

Category 1 (blood system, central nervous system, kidneys), Category 3 (Respiratory tract irritation) (source: NITE)

STOT-repeated exposure

**[Product]**

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

[Data for components of the product]**[NITE-CHIRP]**

Category 1 (blood system, liver, nervous system, kidneys, urinary bladder) (source: NITE)

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

Section 12. Ecological Information**Toxicity****Aquatic toxicity****[Product]**

Category 2, Toxic to aquatic life

Category 3, Harmful to aquatic life with long lasting effects

[Data for components of the product]

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

[NITE-CHIRP]

Fish (*Oryzias latipes*) 96-hour LC50: 4.0 mg/L (OECD TG 203, GLP) (source: NITE)

Crustacea (*Daphnia magna*) 48-hour EC50: 5.3 mg/L (OECD TG 202, GLP) (source: NITE)

Algae (*Raphidocelis subcapitata*) 72-hour ErC50: 2.1 mg/L (OECD TG 201, GLP) (source: NITE)

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

[NITE-CHIRP]

Crustacea (*Daphnia magna*) 21-day NOEC: 0.69 mg/L (OECD TG 211, GLP) (source: NITE)

Algae (*Raphidocelis subcapitata*) 72-hour NOErC: 0.58 mg/L (OECD TG 201, GLP) (source: NITE)

Water solubility

0.074 g/100 mL (25°C) (source: ICSC, 2005)

Persistence and degradability**[Data for components of the product]**

Rapidly degradable (A 14-day degradation rate: 68.4% (by BOD)) (Guidelines specified by the Chemical Substances Control Law) (source: NITE)

Bioaccumulative potential**[Data for components of the product]**

log Kow: 2.84 (source: NITE)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

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.



Section 14. Transport Information

UN Number or ID Number : Not regulated
IMDG Code (International Maritime Dangerous Goods Regulations)
UN Number or ID Number : Not regulated
IATA (Dangerous Goods Regulations)
UN Number or ID Number : Not regulated
Environmental hazards
Marine pollutants (yes/no) : no

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.

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
© KISHIDA CHEMICAL CO., LTD.
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-CHRIIP), up to FY2023).