



## Safety Data Sheet

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

Product identifier:

Product name: Phenol solution 80%

SDS No. : 6079E-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

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### 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 (Dermal): Category 3

Skin corrosion/irritation: Category 1

Serious eye damage/eye irritation: Category 1

Germ cell mutagenicity: Category 2

Reproductive toxicity: Category 1B

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

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

#### ENVIRONMENT HAZARDS

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

Hazardous to the aquatic environment, long-term (chronic): Category 2

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

Label elements



Signal word: Danger

#### HAZARD STATEMENT

H302 Harmful if swallowed

H311 Toxic in contact with skin

H314 Causes severe skin burns and eye damage

H341 Suspected of causing genetic defects

H360 May damage fertility or the unborn child

H370 Causes damage to organs (cardiovascular system, nervous system, respiratory system, kidneys)



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

H411 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.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash contaminated parts thoroughly after handling.

P280 Wear protective gloves or protective clothing.

P280 Wear protective gloves, protective clothing or face protection.

P280 Wear eye protection/face protection.

P280 Use personal protective equipment as required.

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

##### Response

P391 Collect spillage.

P314 Get medical advice/attention if you feel unwell.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

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.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water or shower.

P363 Wash contaminated clothing before reuse.

P361 + P364 Take off immediately all 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.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

##### Storage

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".

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### Section 3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name	Content (%)	CAS No.	Chemicals No, Japan	Chemical formula
Phenol	80	108-95-2	3-481	C <sub>6</sub> H <sub>5</sub> OH
Water	20	7732-18-5	-	H <sub>2</sub> O

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



products may exceed the figures shown above.

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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.

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.

Do NOT induce vomiting.

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 spraying loaded liquid, foam (water-soluble liquid: alcohol-resistant foam), inactive gases, dry powder, dry sand to extinguish.

\*Fire Service Act Group 4 Hazardous Materials

###### Unsuitable extinguishing media

Indoor Fire Plug System or Outdoor Fire Plug System

Sprinkler System

Dry Chemical Extinguishing System—Others (except for phosphates etc., Hydrogen Carbonates etc.)

Fire Extinguisher Discharging Jet Water/Spraying Water

Fire Extinguisher Discharging Jet Loaded Liquid

Fire Extinguisher Discharging Dry Extinguishing agents—Others (except for phosphates etc., Hydrogen Carbonates etc.)

Water Bucket or Water Tank

\*Cabinet Order Concerning the Control of Hazardous Materials (Attached Table 5) Group 4 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**

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

**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.

(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.

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.

Take off immediately all 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.  
Storage in accordance with local/national regulation.  
Container and packaging materials for safe handling  
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.

### Adopted value

(Phenol)

JSOH(1978) 5ppm; 19mg/m<sup>3</sup> (skin)

(Phenol)

ACGIH(1996) TWA: 5ppm (URT irr; lung dam; CNS impair)

### [ACGIH] Notation

(Phenol)

Skin

### 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: Liquid

Color: Colorless to pale brown

Odor: Characteristic odor

Melting point/Freezing point data is not available.

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: 103°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: Soluble

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: 1.05

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

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

(Phenol)

The solution in water is a weak acid. Reacts with oxidants. This generates fire and explosion hazard. (ICSC 0070)

Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

Incompatible materials

Oxidizing agents

Hazardous decomposition products

Carbon oxides

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## 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]

[GHS Cat. Japan, base data]

(Phenol)

rat LD50=340-530mg/kg (AICIS IMAP, 2014)

Acute toxicity (Dermal)

[Product]

Category 3, Toxic in contact with skin

[Data for components of the product]

[GHS Cat. Japan, base data]

(Phenol)

rat LD50=0.50mL/kg (converted value by density 1.071g/cm<sup>3</sup>: 536mg/kg) (EPA Pesticides RED, 2009)

Irritant properties



## Skin corrosion/irritation

## [Product]

Category 1, Causes severe skin burns and eye damage

## [Data for components of the product]

[GHS Cat. Japan, base data]

(Phenol)

(OECD TG 431) skin corrosive (AICIS IMAP, 2014)

## Serious eye damage/irritation

## [Product]

Category 1, Causes serious eye damage

## [Data for components of the product]

[GHS Cat. Japan, base data]

(Phenol)

rabbit (equivalent to OECD TG 405) severe conjunctivitis, iritis, corneal opacity and ulcers, not recover after 14 days (CERI/NITE Hazard Assessment Report, 2008 et al)

Allergenic and sensitizing effects data is not available.

## Germ cell mutagenicity

## [Product]

Category 2, Suspected of causing genetic defects

## [Data for components of the product]

[GHS Cat. Japan, base data]

(Phenol)

cat. 2; EU REACH CoRAP, 2015; ATSDR, 2008 et al.

## Carcinogenicity

## [Data for components of the product]

[IARC]

(Phenol)

Group 3 : Not classifiable as to its carcinogenicity to humans

[ACGIH]

(Phenol)

A4(1996) : Not Classifiable as a Human Carcinogen

## Reproductive toxicity

## [Product]

Category 1B, May damage fertility or the unborn child

## [Data for components of the product]

[GHS Cat. Japan, base data]

(Phenol)

cat. 1B; EFSA, 2013 et al.

## Specific target organ toxicity (STOT)

## STOT-single exposure

## [Product]

Category 1, Causes damage to organs

## [Data for components of the product]

[cat.1]

[GHS Cat. Japan, base data]

(Phenol)

cardiovascular system, nervous system, respiratory system, kidneys (CERI/NITE Hazard Assessment Report, 2008)

## 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]

(Phenol)

blood system, cardiovascular system, liver, central nervous system, kidneys (CERI/NITE

Hazard Assessment Report, 2008)

Aspiration hazard data is not available.

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## Section 12. Ecological Information

Toxicity

Aquatic toxicity

[Product]

Category 2, Toxic to aquatic life

Category 2, 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]

(Phenol)

Crustacea (Ceriodaphnia dubia) LC50=3.1mg/L/48hr (MOE Result of the initial environmental risk assessment of chemicals, 2002)

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

[GHS Cat. Japan, base data]

(Phenol)

Fish (Cirrhina mrigala) NOEC=0.077mg/L/60days (SIAP, 2004)

Water solubility

(Phenol)

moderate (ICSC, 2001)

Persistence and degradability

[Data for components of the product]

(Phenol)

Rapidly degradable (BOD\_Degradation : 85% (METI Existing Chemical Substances Safety Inspections Data, 1979))

Bioaccumulative potential

[Data for components of the product]

(Phenol)

log Pow=1.46 (ICSC, 2001)

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 : 2821

UN Proper Shipping Name :

PHENOL SOLUTION

Class or division (Transport hazard class) : 6.1

Packing group : III

ERG GUIDE No.: 153

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : 2821

UN Proper Shipping Name :

PHENOL SOLUTION

Class or division (Transport hazard class) : 6.1

Packing group : III

IATA (Dangerous Goods Regulations)

UN Number or ID Number : 2821

UN Proper Shipping Name :

PHENOL SOLUTION

Class or division (Transport hazard class) : 6.1

Hazard labels : Toxic

Packing group : III

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

Phenol; 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 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).