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Safety Data Sheet

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

Product identifier:
Product name: Phenol
SDS No. : 6078E-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 (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
Harmful if swallowed
Toxic in contact with skin
Causes severe skin burns and eye damage
Suspected of causing genetic defects
May damage fertility or the unborn child
Causes damage to organs (cardiovascular system, nervous system, respiratory system, kidneys)
Causes damage to organs through prolonged or repeated exposure (blood system, cardiovascular system, liver, central nervous system, kidneys)
Toxic to aquatic life with long lasting effects
PRECAUTIONARY STATEMENT

Prevention
Avoid release to the environment.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash contaminated parts thoroughly after handling.
Wear protective gloves, protective clothing or face protection.
Wear eye protection/face protection.
Do not eat, drink or smoke when using this product.
Response
Collect spillage.
Get medical advice/attention if you feel unwell.
IF exposed or concerned: Get medical advice/attention.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Wash contaminated clothing before reuse.
Take off immediately all contaminated clothing and wash it before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Disposal
Dispose of contents/container in accordance with local/national regulation.

Section 3. Composition/information on ingredients

Mixture/Substance selection:
Substance
Ingredient name:Phenol
Content (%):98(min)
Chemical formula:C6H5OH
Chemicals No, Japan:3-481
CAS No.:108-95-2
MW:94.11
ECNO:203-632-7
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 (or hair)
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.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

In case of fire, use water mist, foam, dry powder, CO2, dry sand to extinguish.

Unsuitable extinguishing media

Dry-powder firefighting equipment - other (except for phosphate etc.,hydrogen carbonate etc.)

Dry-powder extinguisher - other (except for phosphate etc.,hydrogen carbonate etc.)

Specific hazards arising from the substance or mixture

Containers may explode when heated.
Fire may produce irritating, corrosive and/or toxic gases.

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 full face peace operated positive pressure mode.

Section 6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Ventilate area until material pick up is complete.
Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

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

Wear protective gloves or protective clothing.
Wear eye protection/face protection.
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 in a cool, dry place. Do not store in direct sunlight.
Keep under lock and key.
Container and packaging materials for safe handling
Glass
Stainless steel

Section 8. Exposure controls/personal protection
Control parameters
Adopted value
(Phenol)
ACGIH(1996) TWA: 5ppm (URT irr; lung dam; CNS impair)
Notation
(Phenol)
Skin
OSHA-PEL
(Phenol)
TWA: 5ppm, 19mg/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
Respiratory protection
Wear respiratory protection.
Hand protection
Wear protective gloves.
Eye protection
Wear eye/face protection.

Section 9. Physical and Chemical Properties
Information on basic physical and chemical properties
Physical state: Crystals or lump
Color: Colorless to yellow, white to pink
Odor: Characteristic odor
Melting point/Freezing point: 41℃
Boiling point or initial boiling point: (Phenol)182℃
Boiling range data is not available.
Flammability (gases, liquids and solids) data is not available.
Lower and upper explosion limit/flammability limit:
Lower explosion limit: 1.3 vol %
Upper explosion limit: 9.5 vol %
Flash point: (Phenol)(C.C.) 79℃

Auto-ignition temperature: (Phenol)715℃
Decomposition temperature data is not available.
pH data is not available.
Kinematic viscosity data is not available.
Solubility:
Solubility in water: 84 g/L (Soluble)
n-Octanol/water partition coefficient: log Pow1.46
Vapor pressure: 47 Pa (20℃)
Density and/or relative density: 1.06 g/cm3
Relative vapor density (Air=1): 3.2
Relative density of the Vapor/air - mixture at 20℃ (Air = 1): 1.0
Particle characteristics data is not available.

Section 10. Stability and Reactivity

Reactivity
Not available.
Chemical stability
Stable under normal storage/handling conditions.
Possibility of hazardous reactions
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

Section 11. Toxicological Information

Information on toxicological effects
Acute toxicity
Acute toxicity (Oral)
[Data for components of the product]
[GHS Cat. Japan, base data]
(Phenol)
rat LD50=340-530mg/kg (AICIS IMAP, 2014)
Acute toxicity (Dermal)
[Data for components of the product]
[GHS Cat. Japan, base data]
(Phenol)
rat LD50=0.50mL/kg (converted value by density 1.071g/cm3: 536mg/kg) (EPA Pesticides RED, 2009)
Irritant properties
Skin corrosion/irritation
[Data for components of the product]
[GHS Cat. Japan, base data]
(Phenol)
(OECD TG 431)skin corrosive(AICIS IMAP, 2014)
Serious eye damage/irritation
[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

[Data for components of the product]

[GHS Cat. Japan, base data]

(Phenol)

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

Carcinogenicity

[IARC]

(Phenol)

Group 3 : Not classifiable as to its carcinogenicity to humans

[ACGIH]

(Phenol)

A4(1996) : Not Classifiable as a Human Carcinogen

Reproductive toxicity

[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

[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

[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.

Section 12. Ecological Information

Toxicity

Aquatic toxicity

[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.

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 in accordance with local/national regulation.

Section 14. Transport Information

UN Number or ID Number : 1671

UN Proper Shipping Name :

PHENOL, SOLID

Class or division (Transport hazard class) : 6.1

Packing group : II

ERG GUIDE No.: 153

Special provisions No.: 279

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : 1671

UN Proper Shipping Name :

PHENOL, SOLID

Class or division (Transport hazard class) : 6.1

Packing group : II

Special provisions No.: 279

IATA (Dangerous Goods Regulations)

UN Number or ID Number : 1671

UN Proper Shipping Name :

PHENOL, SOLID

Class or division (Transport hazard class) : 6.1

Hazard labels : Toxic

Packing group : II

Special provisions No.: A113

Environmental hazards

Marine pollutants (yes/no) : yes

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

Other regulatory information

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

Section 16. Other information

GHS classification and labelling

Acute toxicity, Category 4: H302 Harmful if swallowed
Acute toxicity, Category 3: H311 Toxic in contact with skin
Skin corrosion/irritation, Category 1: H314 Causes severe skin burns and eye damage
Serious eye damage/eye irritation, Category 1: H318 Causes serious eye damage
Germ cell mutagenicity, Category 2: H341 Suspected of causing genetic defects
Reproductive toxicity, Category 1B H360 May damage fertility or the unborn child
STOT - single exposure, Category 1: H370 Causes damage to organs
STOT - Repeated exposure, Category 1: H372 Causes damage to organs through prolonged or repeated exposure
Hazardous to the aquatic environment, short-term (acute), Category 2: H401 Toxic to aquatic life
Hazardous to the aquatic environment, long-term (chronic), Category 2: H411 Toxic to aquatic life with long lasting effects

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN
IMDG Code, 2020 Edition (Incorporating Amendment 40-20)
IATA Dangerous Goods Regulations (62nd Edition) 2021
2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2022 TLVs and BEIs. (ACGIH)
Supplier's data/information

General Disclaimer

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 2021).