

Date of issue: 2018/06/21 Date of revision: 2024/04/19

Safety Data Sheet

Section 1. Identification of the substance/mixture and of the company/undertaking Product identifier: Product name: Resorcinol SDS No. : 6808E-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

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

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2A

Skin sensitization: Category 1B

Specific target organ toxicity - single exposure: Category 1 (blood system, central nervous 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



Signal word: Danger

HAZARD STATEMENT

H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

H317 May cause an allergic skin reaction

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

H400 Very toxic to aquatic life

PRECAUTIONARY STATEMENT

Prevention

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.



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

P391 Collect spillage.

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

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.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P330 IF SWALLOWED: Rinse mouth.

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

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".

Section 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name	Content (%)	CAS No.	Chemicals No, Japan	Chemical formula
Resorcinol	98(min)	108-46-3	3–543	C6H4(OH)2

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: Call a POISON CENTER/doctor/physician.

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.		
	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		
	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.



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Safety Measures

- 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	
Adopted value	
ACGIH(1996) TWA: 10ppm;	
STEL: 20ppm (Eye & skin irr)	
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: Crystals Color: White to pale red



Odor: Characteristic odor Melting point/Freezing point: 110°C Boiling point or initial boiling point: (Resorcinol)280°C 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: 1.4 vol % Flash point: (Resorcinol)(C.C.) 127°C Auto-ignition temperature: (Resorcinol)607°C Decomposition temperature data is not available. pH data is not available. Kinematic viscosity data is not available. Solubility: Solubility in water: 140 g/100 ml Solubility in solvent data is not available. n-Octanol/water partition coefficient: log Pow0.79 through 0.93 Vapor pressure: 0.065 Pa (20°C) Density and/or relative density: 1.28 g/cm3 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

As a result of flow, agitation, etc., electrostatic charges can be generated.
Reacts with strong oxidants, ammonia and amino compounds. This generates fire and explosion hazard. (ICSC 1033)

Conditions to avoid

Contact with incompatible materials.
Contact with fire source.

Incompatible materials

Strong oxidizing agents, Ammonia, Amino compounds

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] [GHS Cat. Japan, base data]



rat LD50=301mg/kg (CICAD 71, 2006) Acute toxicity (Dermal) [Data for components of the product] [GHS Cat. Japan, base data] rabbit LD50=2830mg/kg (CICADs No.71, 2006) Irritant properties Skin corrosion/irritation [Product] Category 2, Causes skin irritation [Data for components of the product] [GHS Cat. Japan, base data] human dermatitis (ACGIH 7th, 2001) Serious eye damage/irritation [Product] Category 2A, Causes serious eye irritation [Data for components of the product] [GHS Cat. Japan, base data] rabbit severe irritation, eyes irritation score: 70/110, equivalent to cat.2A (MHLW Risk Assessment Report, 2019) Sensitization Skin sensitization [Product] Category 1B, May cause an allergic skin reaction [Data for components of the product] [GHS Cat. Japan, base data] cat. 1B; guinea pig/positive (OECD TG 406, GLP) (ECHA RAC Opinion, 2021) Mutagenic effects data is not available. Carcinogenicity [Data for components of the product] [IARC] Group 3 : Not classifiable as to its carcinogenicity to humans [ACGIH] A4(1996) : Not Classifiable as a Human Carcinogen Reproductive toxicity data is not available. 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] blood system, central nervous system (DFGOT vol.20, 2003) STOT-repeated exposure data is not available. 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) [GHS Cat. Japan, base data] Crustacea (Daphnia magna) LC50=1mg/L/48hr; Fish (Pimephales promelas) LC50=26.8mg/L/96hr (EU CLP CLH, 2020) Hazardous to the aquatic environment, long-term (chronic) [GHS Cat. Japan, base data] Crustacea (Daphnia magna) NOEC >=0.172mg/L/21days (EU CLP CLH, 2020) Water solubility 140 g/100 ml (ICSC, 2003) Persistence and degradability [Data for components of the product] Rapidly degradable (BOD_Degradation : 66.7% (METI Existing Chemical Substances Safety Inspections Data, 1975)) Bioaccumulative potential [Data for components of the product] log Kow=0.80 (SRC PHYSPROP Database, 2005) 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 : 2876 UN Proper Shipping Name : RESORCINOL 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 : 2876 UN Proper Shipping Name : RESORCINOL Class or division (Transport hazard class) : 6.1 Packing group : III IATA (Dangerous Goods Regulations) UN Number or ID Number : 2876 UN Proper Shipping Name : RESORCINOL



Class or division (Transport hazard class) : 6.1 Hazard labels : Toxic Packing group : III 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

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) 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).