



## Safety Data Sheet

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

Product identifier:

Product name: Catechol

SDS No. : 1476E-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 3

Acute toxicity (Dermal): Category 3

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 1

Skin sensitization: Category 1

Germ cell mutagenicity: Category 2

Carcinogenicity: Category 1B

Reproductive toxicity: Category 2

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

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

#### ENVIRONMENT HAZARDS

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

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

Label elements



Signal word: Danger

#### HAZARD STATEMENT

Toxic if swallowed

Toxic in contact with skin

Causes skin irritation

Causes serious eye damage

May cause an allergic skin reaction

Suspected of causing genetic defects

May cause cancer

Suspected of damaging fertility or the unborn child

Causes damage to organs (central nervous system)

May cause respiratory irritation

Toxic to aquatic life

**PRECAUTIONARY STATEMENT****Prevention**

- Avoid release to the environment.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Use only outdoors or in a well-ventilated area.
- Wash contaminated parts thoroughly after handling.
- Wear protective gloves or protective clothing.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear eye protection/face protection.
- Do not eat, drink or smoke when using this product.

**Response**

- IF exposed or concerned: Get medical advice/attention.
- Call a POISON CENTER/doctor/physician if you feel unwell.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation or rash occurs: Get medical advice/attention.
- 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: Immediately call a POISON CENTER/doctor/physician.
- IF SWALLOWED: Rinse mouth.

**Storage**

- Store in a well-ventilated place. Keep container tightly closed.

**Disposal**

- Dispose of contents/container in accordance with local/national regulation.

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**Section 3. Composition/information on ingredients****Mixture/Substance selection:****Substance**

- Ingredient name:Catechol
- Content (%):99(min)
- Chemical formula:C6H4(OH)2
- Chemicals No, Japan:3-543
- CAS No.:120-80-9
- MW:110.11
- ECNO:204-427-5

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

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**Section 4. First-aid measures****Descriptions of first-aid measures****General measures**

- IF exposed or concerned: Get medical advice/attention.

**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.

Immediately call a POISON CENTER/doctor/physician.

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**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**

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 piece operated positive pressure mode.

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**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.

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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**

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing or face protection.

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.

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

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.

Keep container protect from light.

Container and packaging materials for safe handling

Glass

Polyethylene

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## Section 8. Exposure controls/personal protection

Control parameters

Adopted value

(Catechol)

ACGIH(1995) TWA: 5ppm (Eye & URT irr; dermatitis)

Notation

(Catechol)

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

Respiratory protection

Wear respiratory protection.

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

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## Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Crystals

Color: Colorless or White to pale brown

Odor: Characteristic odour

Melting point/Freezing point: 105°C

Boiling point or initial boiling point: (Catechol)245.5°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: (Catechol)(C.C.) 127°C

Auto-ignition temperature: (Catechol)510°C

Decomposition temperature data is not available.



pH data is not available.  
Kinematic viscosity data is not available.  
Solubility:  
    Solubility in water: 43 g/100 ml  
n-Octanol/water partition coefficient: log Pow0.88  
Vapor pressure data is not available.  
Density and/or relative density: 1.3  
Relative vapor density (Air=1): 3.8  
Particle characteristics data is not available.

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## Section 10. Stability and Reactivity

### Reactivity

Not available.

### Chemical stability

Turns brown on exposure to air and light. (ICSC 0411)

### Possibility of hazardous reactions

On combustion, forms toxic fumes. Reacts violently with oxidants. This generates fire and explosion hazard. (ICSC 0411)

### 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)

[Data for components of the product]

[GHS Cat. Japan, base data]

(Catechol)

rat LD50=260mg/kg (NITE Initial Risk Assessment Report Ver.1.0 No.145, 2008)

##### Acute toxicity (Dermal)

[Data for components of the product]

[GHS Cat. Japan, base data]

(Catechol)

rat LD50=600mg/kg (NITE Initial Risk Assessment Report, 2008)

#### Irritant properties

##### Skin corrosion/irritation

[Data for components of the product]

[GHS Cat. Japan, base data]

(Catechol)

rabbit moderate irritation (CERI/NITE Initial Risk Assessment Report ver.1.0 No.145, 2008)

##### Serious eye damage/irritation

[Data for components of the product]

[GHS Cat. Japan, base data]

(Catechol)

rabbit severe irritation (CERI/NITE Initial Risk Assessment Report ver.1.0 No.145, 2008)

#### Sensitization

##### Skin sensitization



[Data for components of the product]

[GHS Cat. Japan, base data]

(Catechol)

cat. 1; NITE Initial Risk Assessment Report, ver.1.0 No.145, 2008

Germ cell mutagenicity

[Data for components of the product]

[GHS Cat. Japan, base data]

(Catechol)

cat. 2; NITE Initial Risk Assessment Report, ver.1.0 No.145, 2008

Carcinogenicity

[Data for components of the product]

[GHS Cat. Japan, base data]

(Catechol)

cat.1B; EU Carc. 1B (EU CLP, Accessed Oct. 2021)

[IARC]

(Catechol)

Group 2B : Possibly carcinogenic to humans

[ACGIH]

(Catechol)

A3(1995) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

[EU]

(Catechol)

Category 1B; Substances presumed to have carcinogenic potential for humans

Reproductive toxicity

[Data for components of the product]

[GHS Cat. Japan, base data]

(Catechol)

cat. 2; NITE Initial Risk Assessment Report, ver.1.0 No.145, 2008

Specific target organ toxicity (STOT)

STOT-single exposure

[Data for components of the product]

[cat.1]

[GHS Cat. Japan, base data]

(Catechol)

central nervous system (MOE Environmental Risk Assessment for Chemical Substances Vol.2, 2003; NITE Initial Risk Assessment Report Ver.1.0 No.145, 2008)

[cat.3 (respiratory tract irritation)]

[GHS Cat. Japan, base data]

(Catechol)

respiratory tract irritation (MOE Environmental Risk Assessment for Chemical Substances Vol.2, 2003; PATTY 5th, 2001)

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

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## 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]

(Catechol)

Crustacea (Daphnia magna) EC50=1.66mg/L/24hr (NITE Initial Risk Assessment Report, 2008)

Water solubility



(Catechol)  
43 g/100 ml (ICSC, 1997)  
Persistence and degradability  
[Data for components of the product]  
(Catechol)  
BOD\_Degradation : 83% (METI existing chemical safety inspections)  
Bioaccumulative potential  
[Data for components of the product]  
(Catechol)  
log Pow=0.88 (PHYSPROP DB, 2009)  
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 in accordance with local/national regulation.

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### Section 14. Transport Information

UN Number or ID Number : 2811  
UN Proper Shipping Name :  
TOXIC SOLID, ORGANIC, N.O.S.  
Class or division (Transport hazard class) : 6.1  
Packing group : III  
ERG GUIDE No.: 154  
Special provisions No.: 223; 274  
IMDG Code (International Maritime Dangerous Goods Regulations)  
UN Number or ID Number : 2811  
UN Proper Shipping Name :  
TOXIC SOLID, ORGANIC, N.O.S.  
Class or division (Transport hazard class) : 6.1  
Packing group : III  
Special provisions No.: 223; 274  
IATA (Dangerous Goods Regulations)  
UN Number or ID Number : 2811  
UN Proper Shipping Name :  
TOXIC SOLID, ORGANIC, N.O.S.  
Class or division (Transport hazard class) : 6.1  
Hazard labels : Toxic  
Packing group : III  
Special provisions No.: A3; A5  
Environmental hazards  
Marine pollutants (yes/no) : no



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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

Gatechol

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**

GHS classification and labelling

Acute toxicity, Category 3: H301 Toxic if swallowed

Acute toxicity, Category 3: H311 Toxic in contact with skin

Skin corrosion/irritation, Category 2: H315 Causes skin irritation

Serious eye damage/eye irritation, Category 1: H318 Causes serious eye damage

Skin sensitization, Category 1: H317 May cause an allergic skin reaction

Germ cell mutagenicity, Category 2: H341 Suspected of causing genetic defects

Carcinogenicity, Category 1B: H350 May cause cancer

Reproductive toxicity, Category 2: H361 Suspected of damaging fertility or the unborn child

STOT – single exposure, Category 1: H370 Causes damage to organs

STOT – single exposure, Category 3, Respiratory tract irritation: H335 May cause respiratory irritation.

Hazardous to the aquatic environment, short-term (acute), Category 2: H401 Toxic to aquatic life

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).