

SAFETY DATA SHEETS

According to the UN GHS revision 10

Version: 1.1
Creation Date: July 15, 2024
Revision Date: August 04, 2025

SECTION 1: Identification

1.1 GHS Product identifier

Product name Resorcinol

1.2 Other means of identification

Product number C1534189
Other names -

1.3 Recommended use of the chemical and restrictions on use

Identified uses For laboratory and Industrial use only.
Uses advised against no data available

1.4 Supplier's details

Company CATO Research Chemicals Inc.
Address 3/F,Building B,No.179 BASIGO, Guangpu Rd East,Huangpu Dist,Guangzhou
Telephone +86-20-81960175

1.5 Emergency phone number

Emergency phone number +86-20-81960175
Service hours 'Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Eye irritation, Category 2

2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word Warning
Hazard statement(s) H319 Causes serious eye irritation

Precautionary statement(s)
Prevention

P264 Wash ... thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Response

Storage none
Disposal none

2.3 Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Resorcinol	m-Hydroxyphenol, oligomers	26982-54-7	500-056-0	≈ 99%

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled

Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.

Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention .

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rinse mouth. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Give a slurry of activated charcoal in water to drink. Refer for medical attention .

4.2 Most important symptoms/effects, acute and delayed

Inhalation of vapors or dust causes irritation of respiratory tract. Ingestion causes burns of mucous membranes, severe diarrhea, pallor, sweating, weakness, headache, dizziness, tinnitus, shock, and severe convulsions; may also cause siderosis of the spleen and tubular injury to the kidney. Contact with eyes causes irritation. Can be absorbed from wounds or through unbroken skin, producing severe dermatitis, methemoglobinemia, cyanosis, convulsions, tachycardia, dyspnea, and death. (USCG, 1999)

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Phenols and related compounds

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

If material on fire or involved in fire: Extinguish fire using agent suitable for type of surrounding fire (Material itself does not burn or burns with difficulty). Use water in flooding quantities as fog.

5.2 Specific hazards arising from the chemical

Behavior in Fire: Containers may explode. (USCG, 1999)

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Personal protection: P2 filter respirator for harmful particles. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

6.3 Methods and materials for containment and cleaning up

Environmental consideration: Water spill: Use mechanical dredges or lifts to remove immobilized masses of pollutants and precipitates.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Separated from incompatible materials and food and feedstuffs. See Chemical Dangers. Separated from incompatible materials and food and feedstuffs.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

Component	m-Hydroxyphenol, oligomers
CAS No.	26982-54-7

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	Recommended Exposure Limit: 10 Hour Time-Weighted Average: 10 ppm (45 mg/cu m). Recommended Exposure Limit: Short-Term Exposure Limit: 20 ppm (90 mg/cu m).

Biological limit values

no data available

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Resorcinol is a very white crystalline solid that becomes pink on exposure to light if not completely pure. Burns although ignition is difficult. Density approximately 1.28 g / cm ³ . Irritating to skin and eyes. Toxic by skin absorption. Used to make plastics and pharmaceuticals.
Colour	White needle-like crystals
Odour	Faint, characteristic odor
Melting point/freezing point	109-111°C
Boiling point or initial boiling point and boiling range	280°C at 760mmHg
Flammability	Class IIIB Combustible Liquid: Fl.P. at or above 200°F., but may be difficult to ignite.
Lower and upper explosion limit/flammability limit	Lower flammable limit: 1.4% at 392 deg F (200 deg C) by volume; Upper flammable limit: 1.28% by volume
Flash point	131.9°C
Auto-ignition temperature	1125° F (USCG, 1999)
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	greater than or equal to 100 mg/mL at 65.3° F (NTP, 1992)
Partition coefficient n-octanol/water	log Kow = 0.80
Vapour pressure	1 mm Hg at 227.1° F ; 0.0002 mm Hg at 77° F (NTP, 1992)
Density and/or relative density	1.275g/cm ³
Relative vapour density	3.79 (NTP, 1992) (Relative to Air)
Particle characteristics	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Reacts with strong oxidants, ammonia and amino compounds. This generates fire and explosion hazard.

10.2 Chemical stability

Hygroscopic

10.3 Possibility of hazardous reactions

Combustible when exposed to heat or flame. As a result of flow, agitation, etc., electrostatic charges can be generated. RESORCINOL is a weak organic acid. Incompatible with acetanilide, albumin, alkalis, antipyrine, camphor, iron salts, menthol, spirit nitrous ether, and urethane. Can react with oxidizing materials (NTP, 1992). Has a potentially explosive reaction with concentrated nitric acid [Lewis]. Turns pink on contact with iron.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Can react with oxidizing materials

10.6 Hazardous decomposition products

When heated to decomposition it emits acrid smoke and irritating fumes.

SECTION 11: Toxicological information

Acute toxicity

- Oral: LD50 Rat oral 301 mg/kg
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

Evaluation: No epidemiological data relevant to the carcinogenicity of resorcinol were available. There is inadequate evidence in experimental animals for the carcinogenicity of resorcinol. Overall evaluation: Resorcinol is not classifiable as to its carcinogenicity to humans (Group 3).

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

SECTION 12: Ecological information

12.1 Toxicity

- Toxicity to fish: LC50; Species: Pimephales promelas (fathead minnow); Concentration: 88.6 mg/L for 24 hr /Conditions of bioassay not specified
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

12.2 Persistence and degradability

AEROBIC: Resorcinol, present at 100 mg/L, reached 100% of its theoretical BOD in 2 weeks using an activated sludge inoculum at 30 mg/L in the Japanese MITI test(1,-3). Complete degradation of resorcinol occurred in 8 days (as determined by a 100% UV absorbancy loss) in a mineral salts medium using a silt loam soil inocula(4). A 5-day 61% theoretical BOD was measured using a sewage inocula(5). A 95% degradation was observed over a 0.4-day incubation period using a Warburg respirometer and an acclimated activated sludge inocula(6). A 6-day 21% theoretical BOD was observed using a Warburg respirometer and an activated sludge acclimated to aniline(7). A 12-hr theoretical BOD of 33-39% was observed using a Warburg respirometer and activated sludge acclimated to either phenol, catechol, or benzoic acid(8). A 5-day COD removal of 90% was measured in an activated sludge system(9). The half-life of resorcinol in an aerobic screening test ranged from 0.16 to 0.24 days using activated sludge acclimated to cresols(10). Half-lives of 0.5 and 4.5 hours were determined for initial concentrations of 20 and 120 ppm resorcinol, respectively, in a treatment plant simulation study over a 1-hr incubation period using inoculum from a coke wastewater treatment plant(11). Degradation of 95% in 1 day and 90% in 8 days was observed in a biological treatment simulation using activated sludge and initial concns of 138 and 500 ppm, respectively(12). Using a Warburg respirometer and a mixed-culture of bacteria adapted to phenol, 95% of initial resorcinol was degraded in 1 to 2 days(13). Resorcinol, present at 2 mg/L, reached 68.6% of its theoretical BOD in 5 days, using 150 mL of river water in the river die-away test. The source of river water inoculum was the Songhua River, Jilan Province, China, which is contaminated with substituted benzenes(14).

12.3 Bioaccumulative potential

An estimated BCF of 3 was calculated in fish for resorcinol(SRC), using a log Kow of 0.80(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

12.4 Mobility in soil

The Koc of resorcinol in a clay loam soil from the Michigan State University Soils Research Farm was measured to be 10.36(1). According to a classification scheme(2), this estimated Koc value suggests that resorcinol is expected to have very high mobility in soil. The pKa1 of resorcinol is 9.30(3), indicating that this compound will exist partially in the anion form in the environment and anions generally do not adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts(4).

12.5 Other adverse effects

no data available

SECTION 13: Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

14.1 UN Number

ADR/RID: no data available

IMDG: no data available

IATA: no data available

14.2 UN Proper Shipping Name

ADR/RID: no data available

IMDG: no data available

IATA: no data available

14.3 Transport hazard class(es)

ADR/RID: no data available

IMDG: no data available

IATA: no data available

14.4 Packing group, if applicable

ADR/RID: no data available

IMDG: no data available

IATA: no data available

14.5 Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
m-Hydroxyphenol, oligomers	m-Hydroxyphenol, oligomers	26982-54-7	500-056-0
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed.
Korea Existing Chemicals List (KECL)			Listed.

SECTION 16: Other information

Information on revision

Creation Date July 15, 2024
Revision Date August 04, 2025

Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Any questions regarding this SDS, Please send your inquiry to info@cato-chem.com

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