

SAFETY DATA SHEET

Creation Date 20-Sep-2009 Revision Date 23-May-2017 Revision Number 2

1. Identification

Product Name Resorcinol

Cat No.: R17-500; R254-500

Synonyms m-Dihydroxybenzene; Resorcin; 1,3-Benzenediol

Recommended Use Laboratory chemicals.

Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300 CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity

Skin Corrosion/irritation

Serious Eye Damage/Eye Irritation

Category 2

Category 1

Combustible dust

Category 1

Yes

Label Elements

Signal Word

Danger

Hazard Statements

May form combustible dust concentrations in air Harmful if swallowed Causes skin irritation Causes serious eye damage



Resorcinol

Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Wear protective gloves/protective clothing/eye protection/face protection

Skin

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

Eves

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician

Indestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Storage

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

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life

3. Composition / information on ingredients

Component	CAS-No	Weight %
Resorcinol	108-46-3	100

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention

immediately if symptoms occur.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if

symptoms occur.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

Most important symptoms/effects

Notes to Physician

No information available. Treat symptomatically

5. Fire-fighting measures

Unsuitable Extinguishing Media No information available

Flash Point Method -No information available

No information available

Autoignition Temperature

Explosion Limits

608 °C

Upper No data available Lower 1.4% @ 200°C

Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Resorcinol

Fine dust dispersed in air may ignite. Dust can form an explosive mixture in air.

Hazardous Combustion Products

Environmental Precautions

None known

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

HealthFlammabilityInstabilityPhysical hazards311N/A

6. Accidental release measures

Personal Precautions Avoid contact with the skin and the eyes. Avoid dust formation. Keep people away from and

upwind of spill/leak. Use personal protective equipment. Ensure adequate ventilation. See Section 12 for additional ecological information. Avoid release to the environment.

Collect spillage.

Methods for Containment and Clean Sweep up and shovel into suitable containers for disposal. Avoid dust formation. **Up**

7. Handling and storage

Handling Ensure adequate ventilation. Wear personal protective equipment. Do not breathe dust.

Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Avoid dust

formation. Fine dust dispersed in air may ignite.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from light.

Store under an inert atmosphere.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Resorcinol	TWA: 10 ppm	(Vacated) TWA: 10 ppm	TWA: 10 ppm	TWA: 10 ppm
	STEL: 20 ppm	(Vacated) TWA: 45 mg/m ³	TWA: 45 mg/m ³	TWA: 45 mg/m ³
		(Vacated) STEL: 20 ppm	STEL: 20 ppm	STEL: 20 ppm
		(Vacated) STEL: 90 mg/m ³	STEL: 90 mg/m ³	STEL: 90 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Ensure adequate ventilation, especially in confined areas. Use explosion-proof

electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers

are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

Skin and body protectionWear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard

EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if

Resorcinol

exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical StatePowder SolidAppearanceWhiteOdoraromatic

Odor Threshold
pH

No information available
No information available

Melting Point/Range 110.7 °C

Boiling Point/Range
No information available
No information available

Evaporation Rate negligible

Flammability (solid,gas)

No information available

Flammability or explosive limits

 Upper
 No data available

 Lower
 1.4% @ 200°C

 Vapor Pressure
 1 mmHg @ 108.4 °C

Vapor Density 3.8 (Air = 1.0) Specific Gravity 1.272

Solubility Soluble in water Partition coefficient; n-octanol/water No data available

Autoignition Temperature 608 °C

Decomposition TemperatureNo information availableViscosityNo information available

Molecular Formula C6H6O2 Molecular Weight 110.11

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Hygroscopic. Air sensitive. Light sensitive.

Conditions to Avoid Incompatible products.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products None under normal use conditions

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous ReactionsNone under normal processing.

11. Toxicological information

Acute Toxicity

Component Information

Component	Component LD50 Oral		LC50 Inhalation		
Resorcinol	510 mg/kg (Rat)	2830 mg/kg (Rabbit)	LC50 = 21.3 mg/L (Rat) 1 h		

Toxicologically Synergistic No information available

Products

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Irritating to respiratory system and skin Causes eye burns

Sensitization No information available

Resorcinol

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Resorcinol	108-46-3	Not listed				

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposureSTOT - repeated exposure
None known

Aspiration hazard No information available

Symptoms / effects,both acute and No information available

delayed

Endocrine Disruptor Information No information available

Component		EU - Endocrine Disrupters	EU - Endocrine Disruptors -	Japan - Endocrine Disruptor	
		Candidate List	Evaluated Substances	Information	
	Resorcinol	Group I Chemical	High Exposure Concern	Not applicable	

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Resorcinol	EC50: 1.1 - 72 mg/L, 72h	LC50: = 34.7 mg/L, 96h	EC50 = 265 mg/L 30 min	LC50: = 78 mg/L, 48h
	(Chlorella pyrenoidosa)	static (Leuciscus idus)	EC50 = 375 mg/L 5 min	(Daphnia magna)
		LC50: = 100 mg/L, 96h	EC50 = 543 mg/L 48 h	
		flow-through (Pimephales		
		promelas)		
		LC50: 36 - 100 mg/L, 96h		
		static (Pimephales		
		promelas)		
		LC50: = 53.4 mg/L, 96h		
		(Pimephales promelas)		
		LC50: > 100 mg/L, 96h		
		flow-through (Oncorhynchus		
		mykiss)		

Persistence and Degradability

No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

Component	log Pow
Resorcinol	0.79

13. Disposal considerations

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Resorcinol

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Resorcinol - 108-46-3	U201	-

14. Transport information

DOT

UN-No UN2876
Proper Shipping Name UN2876
RESORCINOL

Hazard Class 6.1 Packing Group III

<u>TDG</u>

UN-No UN2876
Proper Shipping Name RESORCINOL

Hazard Class 6.1 Packing Group III

IATA

UN-No UN2876
Proper Shipping Name RESORCINOL

Hazard Class 6.1 Packing Group III

IMDG/IMO

UN-No UN2876
Proper Shipping Name RESORCINOL

Hazard Class 6.1 Packing Group III

15. Regulatory information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Resorcinol	Х	Х	-	203-585-2	-		Χ	Χ	Χ	Х	Х

Legend:

- X Listed
- E Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
- F Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P Indicates a commenced PMN substance
- R Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S Indicates a substance that is identified in a proposed or final Significant New Use Rule
- T Indicates a substance that is the subject of a Section 4 test rule under TSCA.
- XU Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
- Y1 Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
- Y2 Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313 Not applicable

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard No
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

CWA (Clean Water Act)

Component	CWA - Hazardous	CWA - Reportable	CWA - Toxic Pollutants	CWA - Priority Pollutants	İ
Component	OWA - Hazardous	OTTA - INCODITABLE	OWA - TOXIC I OHULUHUS	TOWA - I HOTHLY I OHULUHUS	

Resorcinol

	Substances	Quantities		
Resorcinol	X	5000 lb	-	-

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration

Not applicable

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Resorcinol	5000 lb	-

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know

Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Resorcinol	X	X	Χ	=	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

16. Other information

Prepared By Regulatory Affairs

Thermo Fisher Scientific

Email: EMSDS.RA@thermofisher.com

 Creation Date
 20-Sep-2009

 Revision Date
 23-May-2017

 Print Date
 23-May-2017

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard

replacing the current legislation under 29 CFR 1910.1200 to align with the Globally

Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS