

Section 1. Product and Company Identification

Product Name Ortho-Cresol
CAS Number 95-48-7

Parchem - fine & specialty chemicals
415 Huguenot Street
New Rochelle, NY 10801
☎ (914) 654-6800 ☎ (914) 654-6899
🌐 parchem.com ✉ info@parchem.com

EMERGENCY RESPONSE NUMBER
CHEMTEL
Toll Free US & Canada: 1 (800) 255-3924
All other Origins: 1 (813) 248-0585
Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture

OSHA/HCS Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

Acute Toxicity (oral) - Category 3
Acute Toxicity (dermal) - Category 3
Skin Corrosion/Irritation - Category 1B
Serious Eye Damage/ Eye Irritation - Category 1
Specific Target Organ Toxicity (Single Exposure) (Respiratory tract irritation) - Category 3

GHS Label Elements

Pictograms:



Signal word: DANGER

Hazard and precautionary statements

Hazard statements

Toxic if swallowed or in contact with skin.
Causes severe skin burns and eye damage.
May cause respiratory irritation.

Precautionary Statements

Prevention: Wear protective gloves. Wear eye or face protection. Wear protective clothing. Use only outdoors or in a well-ventilated area. Avoid breathing dust. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.



Response: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. 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 physician.

Storage: Store locked up.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental Label elements: Do not taste or swallow. Wash thoroughly after handling.

Hazards not otherwise classified: Causes digestive tract burns

Section 3. Composition / Information on Ingredients

Common Name Ortho-Cresol
Synonym(s) o-Cresol
CAS Number 95-48-7

COMPONENT	CAS NUMBER	CONCENTRATION
Ortho-Cresol	95-48-7	> 99.6%

Section 4. First Aid Measures

Description of necessary first-aid measures

Eye contact: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin Contact: Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position

comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects – acute and delayed

Potential acute health effects

Eye contact: Causes serious eye damage.

Inhalation: May cause respiratory irritation.

Skin contact: Causes severe burns. Toxic in contact with skin.

Ingestion: Toxic if swallowed. Corrosive to the digestive tract. Causes burns. May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye Contact: Adverse symptoms may include the following: Pain, watering, redness

Inhalation: Adverse symptoms may include the following: Respiratory tract irritation, coughing

Skin Contact: Adverse symptoms may include the following: Pain or irritation, redness, blistering may occur

Ingestion: Adverse symptoms may include the following: Stomach pains

Indication of immediate medical attention and special treatment needed – If necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Section 5. Firefighting Measures

Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known

Specific hazards arising from the chemical: No specific fire or explosion hazard

Hazardous thermal decomposition products: Decomposition Products may include the following materials: Carbon dioxide; Carbon monoxide



Special protective actions for firefighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for firefighters: Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill: Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

Note: see Section 13 for waste disposal.

Section 7. Handling and Storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face

before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure Controls / Personal Protection

Control Parameters
Occupational Exposure Limits

Ingredient Name	Exposure Limits
o-Cresol	<p>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 5 ppm (8 hours) TWA: 22 mg/m³ (8 hours)</p> <p>NIOSH REL (United States, 10/2013) TWA: 2.3 ppm (10 hours) TWA: 10 mg/m³ (10 hours.)</p> <p>ACGIH TLV (United States, 4/2014). Absorbed through skin. TWA: 20 mg/m³ (8 hours). Form: Inhalable fraction and vapor</p> <p>OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 5 ppm (8 hours.) TWA: 22 mg/m³ (8 hours)</p>

Appropriate engineering controls: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates

a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: face shield or full-face mask

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. 1 -4 hours (breakthrough time): neoprene

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: organic vapor (Type A) and particulate filter

Section 9. Physical and Chemical Properties

Appearance

Physical state: Solid.

Color: Clear.

Odor: Not available.

Odor threshold: Not available.

pH: Not available

Melting point: 30°C (86°F)

Boiling point: 191°C (375.8°F)

Flash point (Closed cup): 81°C (177.8°F)

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Lower and upper explosive (flammable) limits: Not available.

Vapor pressure: Not available.

Vapor density: 3.7 [Air= 1]

Density: 1.05 g/cm³

Relative density: 1.048

Solubility: Not available.

Partition coefficient (n-octanol/water): Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

Aerosol product

Heat of combustion -32.55 kJ/g

Section 10. Stability and Reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: No specific data.

Incompatible materials: No specific data.

Hazardous decomposition: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

Information on toxicological effects

Acute Toxicity

Product name	Result	Species	Dose	Exposure
o-cresol	LD50 Dermal	Rabbit	1380 mg/kg	-
	LD50 Oral	Rat	121 mg/kg	-
	NOAEL Inhalation dusts and mists	Rat	20 mg/L	6 hours
	NOAEL Inhalation Vapor	Rat	1.22 mg/L	1 hours

Conclusion/Summary: Harmful if swallowed

Irritation/Corrosion

Product Name	Result	Species	Score	Exposure	Observation
o-Cresol	Skin - Edema	Rabbit	8	-	-
	Eyes - Edema of the conjunctivae	Rabbit	91.3	-	-

Conclusion/Summary

Skin: Irritating to skin

Eyes: Irritating to eyes

Sensitization: Not available

Mutagenicity

Product Name	Test	Experiment	Result
o-Cresol	-	Subject: Bacteria	Negative
	-	Subject: Mammalian-animal	Negative

Conclusion/Summary: No known significant effects or critical hazards.

Carcinogenicity: Not available

Reproductive Toxicity

Product Name	Material toxicity	Fertility	Development toxin	Species	Dose	Exposure
o-Cresol	-	Negative	Negative	Rat	Oral: 175 mg/kg Gavage	-
	-	Negative	-	Rat	Oral: 450 mg/kg Gavage	-
	-	-	-	Rat	Oral: 30 mg/kg Gavage	-
	-	-	Negative	Rat	Oral: 50 mg/kg Gavage	-
	-	Negative	-	Rat	Oral: 263 mg/kg Gavage	-

Conclusion/Summary: Not considered to be toxic to the reproductive system.

Teratogenicity: Not available

Specific Target Organ Toxicity (Single Exposure)

Name: o-Cresol

Category: Category 3

Route of Exposure: Not applicable

Target Organs: Respiratory tract irritation

Specific Target Organ Toxicity (Repeated Exposure): Not available

Aspiration Hazard: Not available

Information on the likely routes of exposure: routes of entry anticipated: Oral, Dermal.

Potential Acute Health Effects

Eye Contact: Causes serious eye damage.

Inhalation: May cause respiratory irritation.

Skin Contact: Causes severe burns. Toxic in contact with skin.

Ingestion: Toxic if swallowed. Corrosive to the digestive tract. Causes burns. May cause burns to mouth, throat, and stomach.

Symptoms related to the physical, chemical, and toxicological characteristics

Eye Contact: Adverse symptoms may include the following: Pain, watering, redness

Inhalation: Adverse symptoms may include the following: Respiratory tract irritation, coughing

Skin Contact: Adverse symptoms may include the following: Pain or irritation, redness, blistering may occur

Ingestion: Adverse symptoms may include the following: Stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects: Not available

Potential delayed effects: Not available

Long term exposure

Potential immediate effects: Not available

Potential delayed effects: Not available

Potential chronic health effects

Product Name	Result	Species	Dose	Exposure
o-Cresol	Chronic NOAEL Oral	Rat	50 mg/kg	13 weeks
	Chronic NOAEL Oral	Rat	3750 mg/kg	-
	Chronic NOAEL Oral	Mouse	1250 mg/kg	-

General: No known significant effects or critical hazards

Carcinogenicity: No known significant effects or critical hazards

Mutagenicity: No known significant effects or critical hazards

Teratogenicity: No known significant effects or critical hazards

Developmental effects: No known significant effects or critical hazards

Fertility effects: No known significant effects or critical hazards

Numerical measures of toxicity

Acute toxicity estimates: Not available

Section 12. Ecological Information

Toxicity

Product Name	Result	Species	Exposure
o-Cresol	NOEC 6.8 mg/L	Algae - Microcystis aeruginosa	8 days
	NOEC 17 mg/L	Micro-organism- Entosiphon sulcatum	72 hours
	NOEC 33 mg/L	Micro-organism - Pseudomonas putida	16 hours
	Acute EC50 9.6 mg/L	Daphnia- Daphnia pulex	48 hours



	Acute LC50 23,000 $\mu\text{g/L}$ Fresh water	Crustaceans- Asellus aquaticus	48 hours
	Acute LC50 5000 $\mu\text{g/L}$ Fresh water	Daphnia- Daphnia magna	48 hours
	Acute LC50 6.2 mg/L	Fish - Salmo trutta	96 hours

Persistence and Degradability

Product Name	Test	Result	Dose	Inoculum
o-Cresol	OECD 302B 302B Inherent Biodegradability: Zahn-Wellens/ EMPA Test	95% - 5 days	-	-
	OECD 301D 301D Ready Biodegradability - Closed Bottle Test	86% - 20 days	-	-
	OECD 301C 301C Ready Biodegradability - Modified MITI Test (I)	80% - 40 days	100 mg/l	-
	Anaerobic	10% - 56 days	30 mg/l	-

Aquatic Half-life: N/A

Photolysis: N/A

Biodegradability: Readily

Bioaccumulative Potential

Log Pow: 1.95

BCF: 10.7

Potential: Low

Mobility in soil

Soil/water partition coefficient (K_{oc}): Not available

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT, IMDG, and IATA Classification

UN Number: UN3455



UN Proper Shipping Name: Cresols, Solid
Transport hazard class(es): Class 6.1(8)
Packing Group: II
Environmental Hazards: No

Additional Information

DOT Classification

Reportable quantity: 100 lbs/45.4 kg

Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (Reportable Quantity) Transportation requirements.

Limited Quantity: Yes.

Packaging instruction

Passenger aircraft

Quantity limitation: 15 kg

Cargo aircraft

Quantity limitation: 50 kg

Special provisions: 188, IP2, IP4, T3, TP33

IMDG Classification

Emergency Schedules (EmS): F-A, S-B

IATA Classification

Passenger and Cargo Aircraft

Quantity limitation: 15 kg

Packaging instructions: 668

Cargo Aircraft Only

Quantity Limitation: 50kg

Packaging Instructions: 675

Limited Quantities - Passenger Aircraft

Quantity Limitation: 1kg

Packaging Instructions: Y644

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.



Section 15. Regulatory Information

U.S. Federal regulations

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

All components are listed or exempted.

Clean Water Act (CWA) 307: Phenol

Clean Water Act (CWA) 311: Ortho-Cresol

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs): Listed

Clean Air Act Section 602 Class I Substances: Not listed

Clean Air Act Section 602 Class II Substances: Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed

DEA List II Chemicals (Essential Chemicals): Not listed

SARA 302/304

Composition/information on ingredients

Name	Percentage	EHS	SARA 302 TPQ		SARA 304 RQ	
			lbs.	Gallons	lbs.	Gallons
o-Cresol	> 99.6%	Yes	1000/10,000	-	100	-
Phenol	0.1 - 0.3%	Yes	-	-	-	-

SARA 304 RQ: 100lbs/45.4kg

SARA 311/312

Classification: Immediate (Acute) Health Hazard

Composition/Information on ingredients

Name	Percentage	Fire Hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
o-Cresol	> 99.6%	No	No	No	Yes	No

SARA 313

	Product Name	CAS Number	Percentage
Form R - Reporting requirements	o-Cresol	95-48-7	100%
Supplier Notification	o-Cresol	95-48-7	100%

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution. of the notice attached to copies of the SDS subsequently redistributed.



State regulations

Massachusetts: The following components are listed: o-Cresol

New York: The following components are listed: Cresol(s)

New Jersey: The following components are listed: o-Cresol; 2-Methyl Phenol

Pennsylvania: The following components are listed: Phenol, 2-Methyl

International Regulations

Chemical Weapon Convention List Schedules I, II, & III Chemicals: Not listed

Montreal Protocol (Annexes A, B, C, E): Not listed.

Stockholm Convention on Persistent Organic Pollutants: Not listed.

Rotterdam Convention on Prior Inform Consent (PIC): Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals: Not listed.

International lists

National inventory

Australia: All components are listed or exempted

Canada: All components are listed or exempted

China: All components are listed or exempted

Europe: All components are listed or exempted

Japan: All components are listed or exempted

Malaysia: Not determined

New Zealand: All components are listed or exempted

Philippines: All components are listed or exempted

Republic of Korea: All components are listed or exempted

Taiwan: All components are listed or exempted

HMIS Rating

Health: 3*

Flammability: 2

Reactivity: 0

NFPA Rating

Health: 3*

Flammability: 2

Reactivity: 0

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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