

DENTAL
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SIGMA-ALDRICH

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Material Safety Data Sheet

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Creosote, from beechwood tar

Product Number : 03854

Brand : Fluka

Supplier : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832

Fax : +1 800-325-5052

Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Combustible Liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Corrosive, Mutagen

Target Organs

Central nervous system, Lungs, Eyes, Liver, Kidney

Other hazards which do not result in classification

Vesicant., Rapidly absorbed through skin.

GHS Classification

Flammable liquids (Category 4)
Acute toxicity, Oral (Category 3)
Acute toxicity, Inhalation (Category 3)
Acute toxicity, Dermal (Category 3)
Skin corrosion (Category 1A)
Serious eye damage (Category 1)
Germ cell mutagenicity (Category 2)
Specific target organ toxicity - single exposure (Category 2)
Specific target organ toxicity - single exposure (Category 3)
Specific target organ toxicity - repeated exposure (Category 2)
Acute aquatic toxicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H227

H301 + H311

H314

Combustible liquid

Toxic if swallowed or in contact with skin

Causes severe skin burns and eye damage.

H331 Toxic if inhaled.
 H335 May cause respiratory irritation.
 H341 Suspected of causing genetic defects.
 H371 May cause damage to organs.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H401 Toxic to aquatic life.

Precautionary statement(s)

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face 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.
 P310 Immediately call a POISON CENTER or doctor/ physician.

HMS Classification

Health hazard: 3
 Chronic Health Hazard: *
 Flammability: 2
 Physical hazards: 0

NFPA Rating

Health hazard: 3
 Fire: 2
 Reactivity Hazard: 0

Potential Health Effects

Inhalation Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
 Skin Toxic if absorbed through skin. Causes skin burns.
 Eyes Causes eye burns.
 Ingestion Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Beechwood creosote

Component	Classification	Concentration
Cresol		
CAS-No. 1319-77-3 EC-No. 215-293-2 Index-No. 604-004-00-9	Acute Tox. 3; Skin Corr. 1B; H301 + H311, H314	30 - 50 %
Guaiacol		
CAS-No. 90-05-1 EC-No. 201-964-7 Index-No. 604-031-00-6	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; H302, H315, H319	30 - 50 %
2-Methoxy-p-cresol		
CAS-No. 93-51-6 EC-No. 202-252-9	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H302, H315, H319, H335	30 - 50 %
Phenol		
CAS-No. 108-95-2 EC-No. 203-632-7 Index-No. 604-001-00-2	Acute Tox. 3; Skin Corr. 1B; Muta. 2; STOT RE 2; H301 + H311 + H331, H314, H341, H373	10 - 30 %
Xylenol		
CAS-No. 1300-71-6 EC-No. 215-089-3 Index-No. 604-006-00-X	Acute Tox. 3; Skin Corr. 1B; Aquatic Chronic 2; H301 + H311, H314, H411	10 - 30 %

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For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handle and store under inert gas. Air, light, and moisture sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Cresol	1319-77-3	TWA	5 ppm 22 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
Remarks	Skin designation The value in mg/m ³ is approximate.			
		TWA	5 ppm 22 mg/m ³	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
	Skin notation			
		TWA	20 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
	Upper Respiratory Tract irritation 2010 Adoption Not classifiable as a human carcinogen Danger of cutaneous absorption			
Phenol	108-95-2	TWA	5 ppm	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Central Nervous System impairment Upper Respiratory Tract irritation Lung damage Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen Danger of cutaneous absorption			
		TWA	5 ppm 19 mg/m ³	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
	Skin notation			
		TWA	5 ppm 19 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	Skin designation The value in mg/m ³ is approximate.			
		TWA	5 ppm 19 mg/m ³	USA. NIOSH Recommended Exposure Limits
	Potential for dermal absorption			
		C	15.6 ppm 60 mg/m ³	USA. NIOSH Recommended Exposure Limits
	Potential for dermal absorption 15 minute ceiling value			

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	no data available

Safety data

pH	7.0 - 8.0
Melting point/freezing point	Melting point/range: < -20 °C (< -4 °F)
Boiling point	200 - 220 °C (392 - 428 °F)
Flash point	74 °C (165 °F) - closed cup
Ignition temperature	360 °C (680 °F)
Autoignition temperature	no data available
Lower explosion limit	1.7 %(V)
Upper explosion limit	8.6 %(V)
Vapour pressure	< 0.7 hPa (< 0.5 mmHg) at 25 °C (77 °F)
Density	1.090 g/cm ³
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Exposure to moisture may affect product quality.
Heat, flames and sparks.

Materials to avoid

Acid chlorides

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

no data available

Inhalation LC50
no data available

Dermal LD50
no data available

Other information on acute toxicity
no data available

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
Eyes: no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Phenol)

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion	Toxic if swallowed.
Skin	Toxic if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.

Signs and Symptoms of Exposure

Nausea, Dizziness, Headache, Cardiovascular effects., Muscle cramps/spasms., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects
no data available

Additional Information
RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS**Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

UN number: 2922 Class: 8 (6.1) Packing group: II
Proper shipping name: Corrosive liquids, toxic, n.o.s. (Cresol, 2-Methoxy-p-cresol)
Reportable Quantity (RQ): 333 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN number: 2922 Class: 8 (6.1) Packing group: II EMS-No: F-A, S-B
Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (Cresol, 2-Methoxy-p-cresol)
Marine pollutant: No

IATA

UN number: 2922 Class: 8 (6.1) Packing group: II
Proper shipping name: Corrosive liquid, toxic, n.o.s. (Cresol, 2-Methoxy-p-cresol)

15. REGULATORY INFORMATION**OSHA Hazards**

Combustible Liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Corrosive, Mutagen

SARA 302 Components

The following components are subject to reporting levels established by SARA Title III, Section 302:

	CAS-No.	Revision Date
Phenol	108-95-2	2007-07-01

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Phenol	108-95-2	2007-07-01
Cresol	1319-77-3	1993-04-24

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Phenol	108-95-2	2007-07-01
Xylenol	1300-71-6	1993-04-24
Cresol	1319-77-3	1993-04-24

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Phenol	108-95-2	2007-07-01
Xylenol	1300-71-6	1993-04-24
Cresol	1319-77-3	1993-04-24
Guaiacol	90-05-1	
2-Methoxy-p-cresol	93-51-6	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Phenol	108-95-2	2007-07-01
Xylenol	1300-71-6	1993-04-24
Cresol	1319-77-3	1993-04-24
Guaiacol	90-05-1	
2-Methoxy-p-cresol	93-51-6	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION**Text of H-code(s) and R-phras(e)s mentioned in Section 3**

Acute Tox.	Acute toxicity
Aquatic Chronic	Chronic aquatic toxicity
Eye Irrit.	Eye irritation
H301 + H311	Toxic if swallowed or in contact with skin
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
Muta.	Germ cell mutagenicity
Skin Corr.	Skin corrosion
Skin Irrit.	Skin irritation
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure

Further information

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