

p-Cresol

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Date of issue: 3/18/2019 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Substance name : p-Cresol
IUPAC name : 4-Hydroxytoluene, 4-Methylphenol
EC-No. : 203-398-6
CAS-No. : 106-44-5
Product code : 50551321
Formula : C₇H₈O
Product group : Raw material

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Laboratory use, Industrial use, Professional use
Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

No additional information available

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 3 H301
Acute toxicity (dermal), Category 3 H311
Skin corrosion/irritation, Category 1 H314
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

GHS06

Signal word (CLP) : Danger

Hazard statements (CLP) : H301+H311 - Toxic if swallowed or in contact with skin.
H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP) : P280 - Wear protective clothing, eye protection, face protection, protective gloves.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
p-Cresol	(CAS-No.) 106-44-5 (EC-No.) 203-398-6	100

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If possible show this sheet, if not available show packaging or label. Never give anything by mouth to an unconscious person. Do not leave affected person unattended.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. If breathing difficulties persist : Get medical advice/attention.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Do not remove clothing if it sticks to the skin. If irritation persists, consult a doctor.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. Do not induce vomiting. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: May be harmful if inhaled. Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. More severe symptoms are also possible.
Symptoms/effects after skin contact	: Causes severe burns. May produce skin irritation, blistering, ulcers, and deep scarring. More severe symptoms are also possible.
Symptoms/effects after eye contact	: Causes serious eye damage: redness, itching, tears. Blurred vision. More severe symptoms are also possible.
Symptoms/effects after ingestion	: Swallowing this material may result in health hazard. Symptoms of ingestion include drowsiness, weakness, headache, dizziness, nausea, vomiting. More severe symptoms are also possible.

4.3. Indication of any immediate medical attention and special treatment needed

Immediately call a POISON CENTER/doctor.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Carbon oxides (CO, CO ₂).
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5.3. Advice for firefighters

Precautionary measures fire	: Keep container tightly closed and away from heat, sparks and flame. Keep away from combustible materials.
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Warn all persons of toxic hazard.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Isolate from fire, if possible, without unnecessary risk. Avoid dust formation. No flames, no sparks. Eliminate all sources of ignition.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Evacuate unnecessary personnel. Mark out the contaminated area with signs and prevent access to unauthorized personnel. Do not touch or walk on the spilled product. Avoid contact with skin, eyes and clothing.
Measures in case of dust release	: Keep upwind. Avoid creating or spreading dust. Ventilate the area thoroughly, especially low lying areas (basements, workpits etc).

6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection. Use self-contained breathing apparatus and chemically protective clothing.
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: On land, sweep or shovel into suitable containers. Shovel or sweep up and put in a closed container for disposal.
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6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Avoid creating or spreading dust. Provide local exhaust or general room ventilation.

Hygiene measures

: Take off immediately all contaminated clothing and wash it before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

: Ensure adequate ventilation, especially in confined areas.

Storage conditions

: Keep only in the original container in a cool, well ventilated place away from : Heat sources, Direct sunlight. Keep container closed when not in use. Air sensitive. Hygroscopic. Light sensitive. Store contents under inert gas.

Incompatible products

: Strong oxidisers. Acids. Bases.

Incompatible materials

: Sources of ignition. Direct sunlight. Heat sources. air. Light. Moisture. Water, humidity.

Heat and ignition sources

: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage area

: Store below 20 °C. Store in dry protected location to prevent any moisture contact. Store in a dark area.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety procedures.

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard EN 374

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.4		EN 374

Eye protection:

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Use eye protection according to EN 166, designed to protect against powders and dusts.

Type	Use	Characteristics	Standard
Safety goggles, Face shield	Fine dust, Dust	tightly fitting safety goggles, With side shields	EN 166

Skin and body protection:

Emergency safety showers should be available in the immediate vicinity of any potential exposure. Keep suitable chemically resistant protective clothing readily available for emergency use

Type	Standard
Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product	EN ISO 13982

Respiratory protection:

Keep self contained breathing apparatus readily available for emergency use. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Device	Filter type	Condition	Standard
Respiratory protective device with a particle filter	Type P3	Dust protection	EN 14387

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

: Solid

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Appearance	: Low melting solid.
Molecular mass	: 108.14 g/mol
Colour	: off white to light yellow.
Odour	: No data available.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 32 - 34 °C lit.
Freezing point	: No data available
Boiling point	: 202 °C lit.
Flash point	: 85 °C closed cup.
Auto-ignition temperature	: 559 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: 1.3 hPa at 20.0 °C
Relative vapour density at 20 °C	: No data available
Relative density	: 1.034 g/cm3 at 25 °C
Solubility	: No data available
Log Pow	: 1.94
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Protect from sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Air contact. Light. Moisture. Water, humidity.

10.5. Incompatible materials

Strong oxidizers. Acids. Bases.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. Thermal decomposition generates : Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Oral: Toxic if swallowed.
Acute toxicity (dermal)	: Dermal: Toxic in contact with skin.
Acute toxicity (inhalation)	: Not classified

p-Cresol (106-44-5)

LD50 oral rat	207 mg/kg
LD50 dermal rabbit	301 mg/kg
LC50 inhalation rat (mg/l)	> 710 mg/kg 1 hr

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Serious eye damage, category 1, implicit
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met

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Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

p-Cresol (106-44-5)	
LC50 fish 1	7.9 mg/l Oncorhynchus mykiss (rainbow trout) 96hr
EC50 Daphnia 1	1.4 mg/l Daphnia magna (Water flea) 48hr

12.2. Persistence and degradability

p-Cresol (106-44-5)	
Persistence and degradability	No data available.

12.3. Bioaccumulative potential

p-Cresol (106-44-5)	
Log Pow	1.94
Bioaccumulative potential	No data available.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

p-Cresol (106-44-5)	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. Other adverse effects

Additional information	: Avoid release to the environment.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
3455	3455	3455	3455	3455
14.2. UN proper shipping name				
CRESOLS, SOLID	CRESOLS, SOLID	Cresols, solid	CRESOLS, SOLID	CRESOLS, SOLID
Transport document description				
UN 3455 CRESOLS, SOLID (p-Cresol), 6.1 (8), II, (D/E)	UN 3455 CRESOLS, SOLID (p-Cresol), 6.1 (8), II	UN 3455 Cresols, solid (p-Cresol), 6.1, II	UN 3455 CRESOLS, SOLID (p-Cresol), 6.1 (8), II	UN 3455 CRESOLS, SOLID (p-Cresol), 6.1 (8), II

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14.3. Transport hazard class(es)

6.1 (8)	6.1 (8)	6.1 (8)	6.1 (8)	6.1 (8)

14.4. Packing group

II	II	II	II	II
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14.5. Environmental hazards

Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
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No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: TC2
Limited quantities (ADR)	: 500g
Excepted quantities (ADR)	: E4
Packing instructions (ADR)	: P002, IBC08
Special packing provisions (ADR)	: B4
Mixed packing provisions (ADR)	: MP10
Portable tank and bulk container instructions (ADR)	: T3
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAH, L4BH
Tank special provisions (ADR)	: TU15, TE19
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V11
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13, CV28
Special provisions for carriage - Operation (ADR)	: S9, S19
Hazard identification number (Kemler No.)	: 68
Orange plates	:



Tunnel restriction code (ADR)	: D/E
EAC code	: 2X

Transport by sea

Packing instructions (IMDG)	: P002
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B21, B4
Tank instructions (IMDG)	: T3
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: B

Properties and observations (IMDG) : Light yellow solid. Soluble in water. Melting points of CRESOLS: ortho- CRESOL: 30°C, para-CRESOL: 35°C. Toxic if swallowed, by skin contact or by inhalation. Cause burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA)	: E4
PCA Limited quantities (IATA)	: Y644
PCA limited quantity max net quantity (IATA)	: 1kg
PCA packing instructions (IATA)	: 668

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PCA max net quantity (IATA)	: 15kg
CAO packing instructions (IATA)	: 675
CAO max net quantity (IATA)	: 50kg
ERG code (IATA)	: 6C

Inland waterway transport

Classification code (ADN)	: TC2
Special provisions (ADN)	: 802
Limited quantities (ADN)	: 500 g
Excepted quantities (ADN)	: E4
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 2

Rail transport

Classification code (RID)	: TC2
Excepted quantities (RID)	: E4
Packing instructions (RID)	: P002, IBC08
Special packing provisions (RID)	: B4
Mixed packing provisions (RID)	: MP10
Portable tank and bulk container instructions (RID)	: T3
Portable tank and bulk container special provisions (RID)	: TP33
Tank codes for RID tanks (RID)	: SGAH, L4BH
Special provisions for RID tanks (RID)	: TU15
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W11
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28, CW31
Colis express (express parcels) (RID)	: CE9
Hazard identification number (RID)	: 68

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions
p-Cresol is not on the REACH Candidate List
Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

Germany

Reference to AwSV	: Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV; ID No. 1592)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	: p-Cresol is listed
SZW-lijst van mutagene stoffen	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: The substance is not listed

Denmark

Class for fire hazard	: Class III-1
Store unit	: 50 liter
Classification remarks	: Flammable according to the Danish Ministry of Justice; Emergency management guidelines for the storage of flammable liquids must be followed

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Danish National Regulations

: Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information

: None.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Skin Corr. 1	Skin corrosion/irritation, Category 1
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.