

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 6.13

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

### 1.1 Product identifiers

Product name : o-Cresol

Product Number : W348007

Brand : Aldrich

Index-No. : 604-004-00-9

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. : 95-48-7

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

Identified uses : Laboratory chemicals, Manufacture of substances

### 1.3

CHEMIKART

### 1.4 Emergency telephone

Emergency Phone # : 000 800 1007 141 (CHEMTREC)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Acute toxicity, (Category 3)	H301: Toxic if swallowed.
Acute toxicity, (Category 3)	H311: Toxic in contact with skin.
Skin corrosion, (Sub-category 1B)	H314: Causes severe skin burns and eye damage.

Serious eye damage, (Category 1)

H318: Causes serious eye damage.

Long-term (chronic) aquatic hazard, (Category 3)

H412: Harmful to aquatic life with long lasting effects.

## 2.2 Label elements

### Labelling according Regulation (EC) No 1272/2008

#### Pictogram

Signal Word

Danger

Hazard Statements

H301 + H311

Toxic if swallowed or in contact with skin.

H314

Causes severe skin burns and eye damage.

H412

Harmful to aquatic life with long lasting effects.

Precautionary Statements

P260

Do not breathe dust.

P273

Avoid release to the environment.

P280

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

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P310

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements

none

### Reduced Labeling (<= 125 ml)

#### Pictogram

Signal Word

Danger

Hazard Statements

H314

Causes severe skin burns and eye damage.

H412

Harmful to aquatic life with long lasting effects.

H301 + H311

Toxic if swallowed or in contact with skin.

Precautionary Statements

P260

Do not breathe dust.

P280

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

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P310

IF INHALED: Remove person to fresh air and keep comfortable

P305 + P351 + P338 for breathing. Immediately call a POISON CENTER/ doctor.  
IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements none

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms : 2-Methylphenol

Formula : C<sub>7</sub>H<sub>8</sub>O  
Molecular weight : 108,14 g/mol  
CAS-No. : 95-48-7  
EC-No. : 202-423-8  
Index-No. : 604-004-00-9

Component		Classification	Concentration
<b>o-cresol</b>			
CAS-No.	95-48-7	Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Aquatic Chronic 3; H301, H311, H314, H318, H412	<= 100 %
EC-No.	202-423-8		
Index-No.	604-004-00-9		

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Call in physician.

**In case of skin contact**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

**In case of eye contact**

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

**If swallowed**

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

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**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

**Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

**5.2 Special hazards arising from the substance or mixture**

Carbon oxides

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

**5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**5.4 Further information**

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

## 6.2 Environmental precautions

Do not let product enter drains.

## 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

## 6.4 Reference to other sections

For disposal see section 13.

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# SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

### Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

### Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

### Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Air and light sensitive. Store under nitrogen.

### Storage class

Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

## 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

### Ingredients with workplace control parameters

#### Derived No Effect Level (DNEL)

Application Area	Routes of exposure	Health effect	Value
Worker DNEL, acute	inhalation	Systemic effects	153 mg/m3
Worker DNEL,	dermal	Systemic effects	

acute			
Worker DNEL, longterm	inhalation	Systemic effects	3,5 mg/m3
Worker DNEL, longterm	dermal	Systemic effects	
Consumer DNEL, acute	oral, dermal	Systemic effects	
Consumer DNEL, acute	inhalation	Systemic effects	105 mg/m3
Consumer DNEL, longterm	oral, dermal	Systemic effects	
Consumer DNEL, longterm	inhalation	Systemic effects	0,75 mg/m3

#### **Predicted No Effect Concentration (PNEC)**

Compartment	Value
Fresh water	0,1 mg/l
Sea water	0,01 mg/l
Aquatic intermittent release	0,062 mg/l
Sewage treatment plant	1,28 mg/l
Fresh water sediment	0,58 mg/kg
Sea sediment	0,058 mg/kg
Soil	0,0572 mg/kg

## **8.2 Exposure controls**

### **Personal protective equipment**

#### **Eye/face protection**

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

#### **Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Chloroprene

Minimum layer thickness: 0,65 mm

Break through time: 480 min

Material tested: KCL 720 Camapren®

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact

Material: Latex gloves

Minimum layer thickness: 0,6 mm  
Break through time: 60 min  
Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M)

### **Body Protection**

Flame retardant antistatic protective clothing.

### **Respiratory protection**

Recommended Filter type: Filter A-(P3)

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

### **Control of environmental exposure**

Do not let product enter drains.

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## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

- |   |  |
|---|--|
| a) Physical state                               | powder   |
| b) Color  | white  |
| c) Odor   | No data available  |
| d) Melting point/freezing point                 | Melting point/range: 30 - 34 °C  |
| e) Initial boiling point and boiling range      | 191 °C - lit.  |
| f) Flammability (solid, gas)                    | No data available  |
| g) Upper/lower flammability or explosive limits | Upper explosion limit: 58 %(V)<br>Lower explosion limit: 1,3 %(V)                |
| h) Flash point                                  | 81,0 °C - closed cup   |
| i) Autoignition temperature                     | 599,0 °C   |
| j) Decomposition temperature                    | No data available  |
| k) pH   | 4,5 at 25,00000 g/l  |
| l) Viscosity                                    | Viscosity, kinematic: No data available<br>Viscosity, dynamic: No data available |
| m) Water solubility                             | 25 g/l at 20 °C  |
| n) Partition coefficient: n-octanol/water       | No data available  |
| o) Vapor pressure                               | 3,1 hPa at 60,0 °C<br>1,3 hPa at 38,2 °C   |

	0,4 hPa at 20,0 °C
p) Density	1,048 g/cm <sup>3</sup> at 25 °C
Relative density	No data available
q) Relative vapor density	No data available
r) Particle characteristics	No data available
s) Explosive properties	No data available
t) Oxidizing properties	none

## 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

Nitric acid

fuming sulfuric acid

### 10.4 Conditions to avoid

Strong heating.

### 10.5 Incompatible materials

Aluminum, Strong oxidizing agents

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 121,0 mg/kg

Remarks: Behavioral:Convulsions or effect on seizure threshold.

Lungs, Thorax, or Respiration:Dyspnea.



Gastrointestinal:Ulceration or bleeding from stomach.  
(RTECS)

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Acute toxicity estimate Oral - 121 mg/kg  
(ATE value derived from LD50/LC50 value)

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

LD50 Dermal - Rat - 620,0 mg/kg

Remarks: (RTECS)

Acute toxicity estimate Dermal - 620 mg/kg  
(ATE value derived from LD50/LC50 value)

#### **Skin corrosion/irritation**

Remarks: Causes skin burns.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

#### **Serious eye damage/eye irritation**

Remarks: Causes serious eye damage.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

#### **Respiratory or skin sensitization**

No data available

#### **Germ cell mutagenicity**

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: positive

#### **Carcinogenicity**

No data available

#### **Reproductive toxicity**

No data available

#### **Specific target organ toxicity - single exposure**

No data available

#### **Specific target organ toxicity - repeated exposure**

No data available

#### **Aspiration hazard**

No data available

## 11.2 Additional Information

### Endocrine disrupting properties

#### Product:

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - NOAEL (No observed adverse effect level) - 50 mg/kg

Remarks: (ECHA)

RTECS: GO6300000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Central nervous system depression, Diarrhea, Gastrointestinal disturbance

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Systemic effects:

Headache

Nausea

Vomiting

Dizziness

agitation, spasms

cardiovascular disorders

After absorption:

Damage to:

Central nervous system

Liver

Kidney

Other dangerous properties can not be excluded.

This substance should be handled with particular care.

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## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish

LC50 - Oncorhynchus mykiss (rainbow trout) - 8,4 mg/l - 96 h

Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates      static test EC50 - Daphnia magna (Water flea) - 15,7 mg/l - 48 h  
Remarks: (ECHA)  
The value is given in analogy to the following substances: p-cresol

semi-static test NOEC - Daphnia - 1 mg/l - 21 d  
Remarks:

Toxicity to algae      static test ErC50 - SELENASTRUM - 100,00 mg/l - 96 h  
Remarks: (ECHA)

Toxicity to bacteria      EC50 - Photobacterium phosphoreum - 32 mg/l - 30 min  
Remarks: (IUCLID)

## 12.2 Persistence and degradability

Biodegradability      aerobic - Exposure time 7 d  
Result: 100 % - Inherently biodegradable.  
(OECD Test Guideline 302B)

Theoretical oxygen demand      2.520 mg/g  
Remarks: (Lit.)

Ratio BOD/ThBOD      65 %  
Remarks: (Lit.)

## 12.3 Bioaccumulative potential

Bioaccumulation      Danio rerio (zebra fish)(o-cresol)  
  
Bioconcentration factor (BCF): 10,7  
(OECD Test Guideline 305)

## 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Endocrine disrupting properties

### Product:

Assessment      : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## 12.7 Other adverse effects

Biological effects:  
Hazard for drinking water supplies.  
Change in the flavour characteristics of fish protein.

Discharge into the environment must be avoided.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

No data available

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## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 3455

IMDG: 3455

IATA: 3455

### 14.2 UN proper shipping name

ADR/RID: CRESOLS, SOLID

IMDG: CRESOLS, SOLID

IATA: Cresols, solid

### 14.3 Transport hazard class(es)

ADR/RID: 6.1 (8)

IMDG: 6.1 (8)

IATA: 6.1 (8)

### 14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### 14.6 Special precautions for user

Tunnel restriction code : (D/E)

Further information : No data available

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## SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

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## SECTION 16: Other information

### Full text of H-Statements

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Further information

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact

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