

According to Regulation (EC) No 1907/2006

# m-Cresol



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

### 1.1. Product identifier

**Trade name**

m-Cresol

**CAS number**

108-39-4

**EC number**

203-577-9

**Synonyms**

3-METHYLPHENOL

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

**Relevant identified uses**

Research and development.

**Not suitable for use in**

Not suitable for human consumption or veterinary purposes.

### 1.3. Details of the supplier of the safety data sheet

**Supplier**

Molekula Group

Street address

Molekula Ltd, Lingfield Way, Darlington,

DL1 4XX Darlington

United Kingdom

Telephone

+44 (0) 3302 000 333

Email

info@molekula.com

Web site

www.molekula.com

**Contact person**

Kevin Banks

**Email address**

+44 (0) 7769276927

### 1.4. Emergency telephone number

**Poison center/Additional emergency number**

0344 892 0111 - National Poisons Information Service (Newcastle Centre)

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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

#### Classification

Skin corrosion, hazard category 1B  
Acute toxicity, oral, hazard category 3  
Acute toxicity, dermal, hazard category 3

#### Hazard statements

H301, H311, H314

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

H301 Toxic if swallowed.  
H311 Toxic in contact with skin.  
H314 Causes severe skin burns and eye damage.

#### Precautionary statements

P260 Do not breathe dust/fumes/gas/mist/vapours/spray.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P330 Rinse mouth.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P302 + P352 IF ON SKIN: Wash with plenty of water/.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.

### 2.3. Other hazards

No data available

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## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrases M factor acute M factor chronic	Note
m-cresol	108-39-4 203-577-9 01-2119448335-38 604-004-00-9	100%	Acute Tox. 3 - oral, Acute Tox. 3 - dermal, Skin Corr. 1B	H301, H311, H314 - -	C

#### Molecular weight

108.14

#### Substance additional information

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

IF exposed or concerned: Get medical advice/attention. First aiders/ medical personnel need to protect themselves. Show this Safety Data Sheet (SDS) to medical personnel.

#### Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing stops, provide artificial respiration. For breathing difficulties oxygen may be necessary.

#### Skin contact

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Immediately call a POISON CENTER/doctor.

#### Eye contact

Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention.

#### Ingestion

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 if the persons are fully conscious and awake). Administer activated charcoal (20 - 40g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

#### Information for doctors

No data available.

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

The severity of the symptoms described will vary dependant of the concentration and the length of exposure. Causes burns by all exposure routes.

See section 11 for more detailed information on health effects and symptoms.

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## **Inhalation**

Single exposure may cause the following adverse effects: Causes severe burns. Difficulty in breathing.

## **Skin contact**

Single exposure may cause the following adverse effects: Causes severe burns. Blistering may occur. May be absorbed in the body and cause dizziness, nausea and vomiting. Unconsciousness.

## **Eye contact**

Single exposure may cause the following adverse effects: Causes serious eye damage.

## **Ingestion**

Single exposure may cause the following adverse effects: Severe abdominal pain. May cause severe internal injury.

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

Treat symptomatically. Immediately call a POISON CENTER/doctor.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

#### **Unsuitable extinguishing media**

No specific fire fighting procedure given.

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

Specific hazards: Corrosive.

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

Combustible.

Vapours are heavier than air and may travel along the floor and in the bottom of containers.

Forms explosive mixtures with air on intense heating.

### **5.3. Advice for firefighters**

#### **Special protective equipment for fire-fighters**

Evacuate area. Avoid breathing gas, fume, vapours or spray. Prevent skin contact by maintaining a safe distance and by wearing suitable protective equipment/ clothing. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Do not breathe vapour/spray. Avoid contact with skin and eyes. Provide adequate ventilation.

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

case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. For personal protection, see section 8.

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## 6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

## 6.3. Methods and material for containment and cleaning up

Collect with absorbent, non-combustible material into suitable containers.

## 6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Preventive handling precautions

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Take action to prevent static discharges.

#### General hygiene

Take off immediately all contaminated clothing. Wash skin thoroughly after handling.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in a dry place. Store in a closed container.  
Store at ambient temperature. Store in a well-ventilated place.

### 7.3. Specific end use(s)

No specific usage precautions noted.

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**m-Cresol****SECTION 8: Exposure controls/personal protection****8.1. Control parameters****DNEL/DMEL**

Product/Substance name (CAS No./EC No.)	Type	Exposure	Value	Population	Effects
m-cresol (108-39-4/203-577-9)	DNEL	Chronic (long term) Inhalation	3.5 mg/m <sup>3</sup>	Workers	Systemic
m-cresol (108-39-4/203-577-9)	DNEL	Chronic (long term) Inhalation	0.9 mg/m <sup>3</sup>	Workers	Local
m-cresol (108-39-4/203-577-9)	DNEL	Acute (short term) Inhalation	343 mg/m <sup>3</sup>	Workers	Systemic
m-cresol (108-39-4/203-577-9)	DNEL	Acute (short term) Inhalation	0.9 mg/m <sup>3</sup>	Workers	Local
m-cresol (108-39-4/203-577-9)	DNEL	Chronic (long term) Inhalation	0.75 mg/m <sup>3</sup>	Consumers	Systemic
m-cresol (108-39-4/203-577-9)	DNEL	Chronic (long term) Inhalation	0.9 mg/m <sup>3</sup>	Consumers	Local
m-cresol (108-39-4/203-577-9)	DNEL	Acute (short term) Inhalation	222 mg/m <sup>3</sup>	Consumers	Systemic

**PNEC/PEC**

Product/Substance name (CAS No./EC No.)	Type	Environmental compartment	Value
m-cresol (108-39-4/203-577-9)	PNEC	Soil	0.0831 mg/kg
m-cresol (108-39-4/203-577-9)	PNEC	Sewage Treatment Plant	1.14 mg/l
m-cresol (108-39-4/203-577-9)	PNEC	Freshwater	0.1 mg/l
m-cresol (108-39-4/203-577-9)	PNEC	Sediment (freshwater)	0.71 mg/kg
m-cresol	PNEC	Marine water	0.01 mg/l

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Product/Substance name (CAS No./EC No.)	Type	Environmental compartment	Value
(108-39-4/203-577-9)			
m-cresol (108-39-4/203-577-9)	PNEC	Sediment (marine water)	0.071 mg/kg
m-cresol (108-39-4/203-577-9)	PNEC	Intermittent releases	0.076 mg/l

## 8.2. Exposure controls

### Eye / face protection

Wear eye protection.

### Hand protection

Wear protective gloves. Recommended gloves: Chloroprene rubber.

Glove Thickness: 0.65mm

Breakthrough time: 8 hours

Always inspect gloves before use. If signs of wear and tear are noticed then the gloves should be replaced.

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. Wash contaminated skin thoroughly after handling.

### Other skin protection

Wash skin thoroughly after handling.

### Respiratory protection

Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided.

### Environmental exposure controls

Avoid discharge into drains.

## SECTION 9: Physical and chemical properties

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

#### Physical state

Liquid

#### Colour

Light yellow

#### Odour

phenol-like

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**Melting point / freezing point**

8 - 10 °C - lit.

**Boiling point or initial boiling point and boiling range**

203 °C - lit.

**Flammability**

No data available

**Lower and upper explosion limit**

Upper explosion limit: 1.35 %(V) Lower explosion limit: 1.06 %(V)

**Flash point**

86 °C

**Method**

CC (Closed cup).

**Auto-ignition temperature**

559°C

**Decomposition temperature**

No data available

**pH**

No data available

**Kinematic viscosity**

No data available

**Viscosity, dynamic**

6.18 mPa.s at 40 °C 20.8 mPa.s at 20 °C

**Solubility**

22.7 g/l at 25 °C

**Partition coefficient n-octanol/water**

log Pow: 1.96 - Bioaccumulation is not expected.

**Vapour pressure**

< 1 hPa at 20 °C

**Density and/or relative density**

1.034 g/cm<sup>3</sup> at 25 °C - lit.

**Relative density**

1.03 at 20 °C

**Relative vapour density**

No data available

**Particle characteristics**

No data available



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## 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Forms explosive mixtures with air on intense heating.

15 (approx) Kelvin below the flash point is to be rated as critical.

### 10.2. Chemical stability

Stable under the prescribed storage conditions.

### 10.3. Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidising agents.

Nitric acid.

Alkalines

fuming sulfuric acid

chlorosulfonic acid

### 10.4. Conditions to avoid

strong heating

### 10.5. Incompatible materials

Lead. Iron. Brass. Bronze.

### 10.6. Hazardous decomposition products

See section 5.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Test animals
m-cresol 108-39-4 / 203-577-9	LD50	242 mg/kg	Oral	Rat
m-cresol 108-39-4 / 203-577-9	ATE = Acute Toxicity Estimate.	242 mg/kg	Oral	-
m-cresol 108-39-4 / 203-577-9	LD50	620 mg/kg	Dermal	Rabbit
m-cresol 108-39-4 / 203-577-9	ATE = Acute Toxicity Estimate.	620 mg/kg	Dermal	-

#### Skin corrosion/irritation

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Product / Substance name CAS / EC no.	Result	Duration of exposure	Species
m-cresol 108-39-4 / 203-577-9	CAUSES BURNS.	24 hours	Rabbit

**Serious eye damage/irritation**

Product / Substance name CAS / EC no.	Result
m-cresol 108-39-4 / 203-577-9	Causes serious eye damage.

**Germ cell mutagenicity**

Product / Substance name CAS / EC no.	Result	Exposure route	Metabolic activation / Exposure	Species	Method / Guideline
m-cresol 108-39-4 / 203-577-9	Negative.	-	-	Escherichia coli/Salmonella typhimurium	Ames test
m-cresol 108-39-4 / 203-577-9	Positive.	-	with and without metabolic activation	Chinese hamster lung cells	Mutagenicity (mammalian cell test): Chromosome aberration:
m-cresol 108-39-4 / 203-577-9	Negative.	-	with and without metabolic activation	Mouse lymphoma cells	In vitro mammalian cell gene mutation test.
m-cresol 108-39-4 / 203-577-9	Negative.	Oral	-	Mouse bone marrow	Chromosome aberration:

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**11.2. Information on other hazards**

No data available

**SECTION 12: Ecological information****12.1. Toxicity****Acute fish toxicity**

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
m-cresol	LC50	8.4 mg/l	96 hours	Salmo trutta (brown)

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Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
108-39-4 / 203-577-9				trout)
m-cresol 108-39-4 / 203-577-9	LC50	8.6 mg/l	96 hours	Onchorhynchus mykiss (Rainbow trout)
m-cresol 108-39-4 / 203-577-9	LC50	7.6 mg/l	96 hours	Salvelinus fontinalis

**Acute crustacean toxicity**

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
m-cresol 108-39-4 / 203-577-9	EC50	>99.5 mg/l	48 hours	Daphnia pulicaria

**Chronical toxicity**

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
m-cresol 108-39-4 / 203-577-9	NOEC	1 mg/l	21 days	Daphnia magna
m-cresol 108-39-4 / 203-577-9	NOEC	1.35 mg/l	32 days	Pimephales promelas (Fat-head Minnow)

**12.2. Persistence and degradability****Persistence and degradability**

Product / Substance name CAS / EC no.	Type of test	Duration	Result	Degradation
m-cresol 108-39-4 / 203-577-9	aerobic	10 days	96%	Inherently biodegradable.

**12.3. Bioaccumulative potential****Bioaccumulative potential**

Product / Substance name CAS / EC no.	Bioconcentration factor (BCF)	Duration	Result	Species
m-cresol 108-39-4 / 203-577-9	17-20	3 days	0.05 mg/l	Leuciscus idus (Golden orfe)

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## 12.4. Mobility in soil

No data available

## 12.5. Results of PBT and vPvB assessment

No data available

## 12.6. Endocrine disrupting properties

No data available

## 12.7. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal considerations

Dispose of contents/container in accordance with local regulations.

## SECTION 14: Transport information

### 14.1. UN number

2076

### 14.2. UN proper shipping name

#### ADR / RID / ADN proper shipping name

CRESOLS, LIQUID

#### IMDG proper shipping name

CRESOLS, LIQUID

#### IATA proper shipping name

Cresols, liquid

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## 14.3. Transport hazard class(es)

### Label

ADR/RID/ADN



6.1



8

IMDG



6.1



8

IATA



1

### ADR / RID Class

6.1

### ADR / RID Classification code

TC1

### ADR / RID hazard identification number

68

### IMDG Class

6.1 (8)

### IATA Class

6.1 (8)

### ADN Class

6.1

### ADN Class Code

TC1

## 14.4. Packing group

ADR / RID / ADN: II

IMDG: II

IATA: II

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## 14.5. Environmental hazards

### IMDG EmS

F-A, S-B

## 14.6. Special precautions for user

Tunnel restriction code: D/E

Transport category: 2

## 14.7. Maritime transport in bulk according to IMO instruments

IBC Instruction: IBC02

## SECTION 15: Regulatory information

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

#### EU regulations

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

#### National regulations

No data available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

### Phrase meaning

Skin Corr. 1B - Skin corrosion, hazard category 1B

Acute Tox. 3 - oral - Acute toxicity, oral, hazard category 3

Acute Tox. 3 - dermal - Acute toxicity, dermal, hazard category 3

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.