

Safety Data Sheet

according to Regulation (EC) No 1907/2006

m-Cresol > 99 % for synthesis

Revision date: 17.08.2023

Product code: 16910

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

m-Cresol > 99 % for synthesis

REACH Registration Number: 01-2119448335-38-0000
CAS No: 108-39-4
Index No: 604-004-00-9
EC No: 203-577-9

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

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name: AnalytiChem GmbH
Street: Stempelstraße 6
Place: D-47167 Duisburg
Telephone: 0203/5194-0
E-mail: info@analytichem.de
Contact person: Abteilung Produktsicherheit
E-mail: produktsicherheit@analytichem.de
Internet: www.analytichem.de
Responsible Department: Abteilung Produktsicherheit

Telefax: 0203/5194-290
Telephone: 0203/5194-107/117

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

No data available

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Acute Tox. 3; H311
Acute Tox. 3; H301
Skin Corr. 1B; H314
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements**Regulation (EC) No 1272/2008****Signal word:** Danger**Pictograms:**

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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

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.
P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: 3-(CH₃)C₆H₄OH
Molecular weight: 108,14 g/mol

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
108-39-4	m-cresol			100 %
	203-577-9	604-004-00-9	01-2119448335-38-0000	
	Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Aquatic Chronic 3; H311 H301 H314 H412			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
108-39-4	203-577-9	m-cresol	100 %
	dermal: LD50 = 2050 mg/kg; oral: LD50 = ca. 242 mg/kg		

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Self-protection of the first aider

After inhalation

Provide fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Call a physician immediately.

After contact with skin

Wash immediately with: Water
Take off immediately all contaminated clothing and wash it before reuse.
Call a physician immediately.

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After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water. (Water, to which activated charcoal may be added)
Call a physician immediately.
Do not allow a neutralisation agent to be drunk.

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

corrosive, Cough, Irritant
Dizziness, Agitation
Spasms, Gastrointestinal complaints
Vomiting, Headache
Respiratory complaints, Unconsciousness
Cardiac arrhythmias, Risk of serious damage to eyes.

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam
Carbon dioxide (CO₂)
Extinguishing powder
Water

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Combustible liquids
Hazardous combustion products
In case of warming: Vapours are heavier than air, spread along floors and form explosive mixtures with air.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.
In case of fire and/or explosion do not breathe fumes.
Avoid contact with skin, eyes and clothes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Move undamaged containers from immediate hazard area if it can be done safely.
Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

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6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid exposure - obtain special instructions before use.

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Keep container tightly closed.

Use personal protection equipment. Use extractor hood (laboratory).

Do not breathe vapour/aerosol. Provide adequate ventilation.

Advice on protection against fire and explosion

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

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs.

Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a cool, well-ventilated place.

Store in a place accessible by authorized persons only.

Protect against: Light

Further information on storage conditions

Keep container tightly closed.

Keep cool. Protect from sunlight.

storage temperature < +30°C

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
108-39-4	m-cresol		
Worker DNEL, acute	dermal	systemic	1,47 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	3,5 mg/m ³
Worker DNEL, acute	inhalation	systemic	343 mg/m ³
Consumer DNEL, acute	inhalation	systemic	222 mg/m ³
Consumer DNEL, long-term	inhalation	systemic	0,75 mg/m ³
Worker DNEL, long-term	dermal	systemic	0,5 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	0,25 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	0,74 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,25 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	0,74 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment	Value	
108-39-4	m-cresol	
Freshwater	0,1 mg/l	
Freshwater (intermittent releases)	0,076 mg/l	
Marine water	0,01 mg/l	
Freshwater sediment	0,71 mg/kg	
Marine sediment	0,071 mg/kg	
Micro-organisms in sewage treatment plants (STP)	1,14 mg/l	
Soil	0,083 mg/kg	

Additional advice on limit values

EU ELV
5 ppm
22 mg/m³

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles
Face protection umbrella

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

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By long-term hand contact
Trade name/designation: KCL 720 Camapren®
Suitable material: CR (polychloroprene, chloroprene rubber) 0,65 mm
Wearing time with permanent contact: > 480 min

By short-term hand contact
Trade name/designation: KCL 730 Camatril® Velours
Suitable material: NBR (Nitrile rubber) 0,4 mm
Wearing time with occasional contact (splashes): > 60 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. 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 EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Protective clothing
Take off immediately all contaminated clothing and wash it before reuse.
Wash hands and face before breaks and after work and take a shower if necessary.
Draw up and observe skin protection programme.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation
Filtering device with filter or ventilator filtering device of type: A-(P3)

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	light yellow
Odour:	like: Phenol
Odour threshold:	No data available
Melting point/freezing point:	11,5 °C
Boiling point or initial boiling point and boiling range:	202 °C
Flammability:	No data available
Lower explosion limits:	1,06 vol. %
Upper explosion limits:	1,5 vol. %
Flash point:	86 °C
Auto-ignition temperature:	559 °C
Decomposition temperature:	No data available
pH-Value (at 20 °C):	~5 (20 g/l)
Viscosity / kinematic:	No data available
Water solubility: (at 20 °C)	23,5 g/L
Solubility in other solvents	No data available
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	log Pow: 1,96
Dispersion stability:	No data available
Vapour pressure: (at 20 °C)	0,13 hPa

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Vapour pressure:	No data available
Density:	1,03 g/cm ³
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

In case of warming: Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Sustaining combustion:

No data available

Self-ignition temperature

Gas:

No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:

No data available

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

Viscosity / dynamic:

No data available

Flow time:

No data available

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

In case of warming:

Vapours may form explosive mixtures with air.

10.2. Chemical stability

Protect against: Air, Light

10.3. Possibility of hazardous reactions

Oxidising agent, strong

Nitric acid

Alkali (lye)

Oleum

Chlorosulphonic acid

10.4. Conditions to avoid

Air, Light

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

10.5. Incompatible materials

bronze

Brass

Lead

Iron.

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10.6. Hazardous decomposition products

SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

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

Toxicokinetics, metabolism and distribution

Avoid exposure - obtain special instructions before use.

Acute toxicity

Toxic if swallowed.

Toxic in contact with skin.

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
108-39-4	m-cresol					
	oral	LD50 mg/kg	ca. 242	Rat	Industrial Bio-test Laboratory Inc, Nort	OECD Guideline 401
	dermal	LD50 mg/kg	2050	Rabbit	Industrial Bio-test Laboratory Inc, Nort	Method: other: 5 rabbits/dose, 4 doses,

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Risk of serious damage to eyes.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

May cause damage to organs. (kidneys, liver, central nervous system)

STOT-repeated exposure

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

Aspiration hazard

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

Information on likely routes of exposure

No data available

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information

No data available

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Further information

corrosive, Cough, Irritant
Dizziness, Agitation
Spasms, Gastrointestinal complaints
Vomiting, Headache
Respiratory complaints, Unconsciousness
Cardiac arrhythmias

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
108-39-4	m-cresol					
	Acute fish toxicity	LC50 mg/l	23,12	96 h	Poecilia reticulata	Ecotox. Environ. Safety 6: 501-512 (1982) static bioassay according to Saarikoski
	Acute crustacea toxicity	EC50 mg/l	> 99,5	48 h	Daphnia pulex	Arch. Environ. Contam. Toxicol. 9: 557-5 EPA OPP 72-2
	Fish toxicity	NOEC mg/l	1,35	32 d	Pimephales promelas	Canad. J. Fish. Aquat. Sci. 41(1), 141-1 OECD Guideline 210
	Crustacea toxicity	NOEC	1 mg/l	21 d	Daphnia magna	Institut für Wasser-, Boden- und Lufthyg other: Preliminary guideline proposal of

12.2. Persistence and degradability

90 %; 28 d; aerob
OECD 301D
Readily biodegradable (according to OECD criteria).

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
108-39-4	m-cresol	1,96

BCF

CAS No	Chemical name	BCF	Species	Source
108-39-4	m-cresol	>= 17	Leuciscus idus melanotus	Chemosphere 14: 1589

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.
This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.
No data available

12.7. Other adverse effects

Do not allow to enter into surface water or drains.

Further information

Avoid release to the environment.

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SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.
Send to a physico-chemical treatment facility under observation of official regulations.
Do not mix with other wastes.
Do not empty into drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number or ID number:	UN 2076
14.2. UN proper shipping name:	CRESOLS, LIQUID
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	II
Hazard label:	6.1+8
Classification code:	TC1
Limited quantity:	100 mL
Excepted quantity:	E4
Transport category:	2
Hazard No:	68
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 2076
14.2. UN proper shipping name:	CRESOLS, LIQUID
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	II
Hazard label:	6.1+8
Classification code:	TC1
Special Provisions:	802
Limited quantity:	100 mL
Excepted quantity:	E4

Marine transport (IMDG)

14.1. UN number or ID number:	UN 2076
14.2. UN proper shipping name:	CRESOLS, LIQUID
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	II
Hazard label:	6.1+8
Special Provisions:	-
Limited quantity:	100 mL
Excepted quantity:	E4
EmS:	F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 2076
14.2. UN proper shipping name:	CRESOLS, LIQUID
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	II

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Hazard label:	6.1+8	
Limited quantity Passenger:	0.5 L	
Passenger LQ:	Y640	
Excepted quantity:	E4	
IATA-packing instructions - Passenger:		653
IATA-max. quantity - Passenger:		1 L
IATA-packing instructions - Cargo:		660
IATA-max. quantity - Cargo:		30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water hazard class (D): 2 - obviously hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1.

Abbreviations and acronyms

Acute Tox: Acute toxicity

Skin Corr: Skin corrosion

Eye Dam: Eye damage

Aquatic Chronic: Chronic aquatic hazard

Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H301+H311	Toxic if swallowed or in contact with skin.
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.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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