

Safety Data Sheet

according to Regulation (EC) No 1907/2006

m-Cresol 99%

Revision date: 02.01.2025

Product code: 21816

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

1.1. Product identifier

m-Cresol 99%

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
ACD
Street: Stempelstraße 6
Place: D-47167 Duisburg
Telephone: 0203/5194-0 Telefax: 0203/5194-290
E-mail: info@analytichem.de
Contact person: Abteilung Produktsicherheit Telephone: 0203/5194-107/117
E-mail: produktsicherheit@analytichem.de
Internet: www.analytichem.de
Responsible Department: Abteilung Produktsicherheit

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

P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/protective clothing and eye protection/face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of water and soap.
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

Relevant ingredients

| 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

General advice

Do not breathe vapour/aerosol.

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Consult an expert

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

For emergency responders

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

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.

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

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

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

Hints on joint storage

national regulations

Further information on storage conditions

Keep container tightly closed.

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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

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/m³ |
| Worker DNEL, acute | | inhalation | systemic | 343 mg/m³ |
| Consumer DNEL, acute | | inhalation | systemic | 222 mg/m³ |
| Consumer DNEL, long-term | | inhalation | systemic | 0,75 mg/m³ |
| 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.

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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):

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)
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.

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) |

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| | |
|--|------------------------|
| 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 |
| 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

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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.

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).

Mucous membrane irritation in the mouth, throat, esophagus and gastrointestinal tract.

Resorption (oral)

Resorption (dermal)

| 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 |
| | dermal | LD50 mg/kg | 2050 | Rabbit | Industrial Bio-test Laboratory Inc, Nort |
| | | | | | OECD Guideline 401 |
| | | | | | Method: other: 5 rabbits/dose, 4 doses, |

Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: 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

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

Reproductive toxicity: 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.

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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

Further information

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

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

| 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) |
| | Acute crustacea toxicity | EC50 mg/l | > 99,5 | 48 h | Daphnia pulex | Arch. Environ. Contam. Toxicol. 9: 557-5 |
| | Fish toxicity | NOEC mg/l | 1,35 | 32 d | Pimephales promelas | Canad. J. Fish. Aquat. Sci. 41(1), 141-1 |
| | 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 |

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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.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Do not allow to enter into surface water or drains.

Further information

Avoid release to the environment.

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.

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 |

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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
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 Directive 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): 2,6,7,9,11,12.

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.

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Further Information

Provide appropriate information, instructions and training to users

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.