m-Cresol ≥99 %, for synthesis

1.1 Product identifier

Identification of the substance
m-Cresol ≥99 %, for synthesis

Article number
9269

Registration number (REACH)
It is not required to list the identified uses because the substance is not subject to registration according to REACH (< 1 t/a).

Index number in CLP Annex VI
604-004-00-9

EC number
203-577-9

CAS number
108-39-4

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

Relevant identified uses:
Laboratory chemical
Industrial use
Professional use
Laboratory and analytical use

Uses advised against:
Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin. Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany

Telephone:+49 (0) 721 - 56 06 0
Telefax: +49 (0) 721 - 56 06 149
E-mail: sicherheit@carlroth.de
Website: www.carlroth.de

Competent person responsible for the safety data sheet:
Department Health, Safety and Environment
E-mail (competent person):
sicherheit@carlroth.de

1.4 Emergency telephone number

<table>
<thead>
<tr>
<th>Name</th>
<th>Street</th>
<th>Postal code/city</th>
<th>Telephone</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Poisons Information Service City Hospital</td>
<td>Dudley Rd</td>
<td>B187QH Birmingham</td>
<td>844 892 0111</td>
<td></td>
</tr>
</tbody>
</table>

United Kingdom (en)
SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

<table>
<thead>
<tr>
<th>Section</th>
<th>Hazard class</th>
<th>Category</th>
<th>Hazard class and category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1O</td>
<td>Acute toxicity (oral)</td>
<td>3</td>
<td>Acute Tox. 3</td>
<td>H301</td>
</tr>
<tr>
<td>3.1D</td>
<td>Acute toxicity (dermal)</td>
<td>3</td>
<td>Acute Tox. 3</td>
<td>H311</td>
</tr>
<tr>
<td>3.2</td>
<td>Skin corrosion/irritation</td>
<td>1B</td>
<td>Skin Corr. 1B</td>
<td>H314</td>
</tr>
</tbody>
</table>

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects
Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.

2.2 Label elements

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

Signal word: Danger

Pictograms

GHS05, GHS06

Hazard statements

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

Precautionary statements

Precautionary statements - prevention
P280 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary statements - response
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water
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
P310 Immediately call a POISON CENTER/doctor

Labelling of packages where the contents do not exceed 125 ml
Signal word: Danger

Symbol(s)

H301 + H311 Toxic if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
2.3 Other hazards

This material is combustible, but will not ignite readily.

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>m-Cresol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular formula</td>
<td>C₇H₈O</td>
</tr>
<tr>
<td>Molar mass</td>
<td>108.1 g/mol</td>
</tr>
<tr>
<td>CAS No</td>
<td>108-39-4</td>
</tr>
<tr>
<td>EC No</td>
<td>203-577-9</td>
</tr>
<tr>
<td>Index No</td>
<td>604-004-00-9</td>
</tr>
</tbody>
</table>

Substance, Specific Conc. Limits, M-factors, ATE

<table>
<thead>
<tr>
<th>Specific Conc. Limits</th>
<th>M-Factors</th>
<th>ATE</th>
<th>Exposure route</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
<td>242 mg/kg</td>
<td>oral</td>
</tr>
<tr>
<td></td>
<td></td>
<td>300 mg/kg</td>
<td>dermal</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Take off immediately all contaminated clothing. Self-protection of the first aider.

Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

Following eye contact

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. Protect uninjured eye.

Following ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).
4.2 Most important symptoms and effects, both acute and delayed
Corrosion, Risk of blindness, Gastric perforation

4.3 Indication of any immediate medical attention and special treatment needed
none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
co-ordinate firefighting measures to the fire surroundings
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO₂)

Unsuitable extinguishing media
water jet

5.2 Special hazards arising from the substance or mixture
Combustible. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Hazardous combustion products
In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

6.2 Environmental precautions
Keep away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up
Advice on how to contain a spill
Covering of drains.

Advice on how to clean up a spill
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Other information relating to spills and releases
Place in appropriate containers for disposal. Ventilate affected area.
6.4 Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Provision of sufficient ventilation. Handle and open container with care. Clear contaminated areas thoroughly.

Measures to prevent fire as well as aerosol and dust generation

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene
When using do not eat or drink. Thorough skin-cleansing after handling the product.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed.

Incompatible substances or mixtures
Observe hints for combined storage.

Consideration of other advice:
Store locked up.

Specific designs for storage rooms or vessels
Recommended storage temperature: 15 – 25 °C

7.3 Specific end use(s)
No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
National limit values

Occupational exposure limit values (Workplace Exposure Limits)
This information is not available.

Human health values

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Protection goal, route of exposure</th>
<th>Used in</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL</td>
<td>1,47 mg/kg</td>
<td>human, dermal</td>
<td>worker (industry)</td>
<td>acute - systemic effects</td>
</tr>
<tr>
<td>DNEL</td>
<td>343 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>acute - systemic effects</td>
</tr>
<tr>
<td>DNEL</td>
<td>0,5 mg/kg</td>
<td>human, dermal</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>DNEL</td>
<td>3,5 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
</tbody>
</table>
Environmental values

### Relevant PNECs and other threshold levels

<table>
<thead>
<tr>
<th>End-point</th>
<th>Threshold level</th>
<th>Organism</th>
<th>Environmental compartment</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNEC</td>
<td>0,076 mg/l</td>
<td>aquatic organisms</td>
<td>water</td>
<td>intermittent release</td>
</tr>
<tr>
<td>PNEC</td>
<td>0,1 mg/l</td>
<td>aquatic organisms</td>
<td>freshwater</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0,01 mg/l</td>
<td>aquatic organisms</td>
<td>marine water</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>PNEC</td>
<td>1,14 mg/l</td>
<td>aquatic organisms</td>
<td>sewage treatment plant (STP)</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0,71 mg/kg</td>
<td>aquatic organisms</td>
<td>freshwater sediment</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0,071 mg/kg</td>
<td>aquatic organisms</td>
<td>marine sediment</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0,083 mg/kg</td>
<td>terrestrial organisms</td>
<td>soil</td>
<td>short-term (single instance)</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

**Individual protection measures (personal protective equipment)**

**Eye/face protection**

Use safety goggle with side protection. Wear face protection.

**Skin protection**

- **hand protection**

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 °C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

- **type of material**

FKM (fluoro rubber), Butyl caoutchouc (butyl rubber)

- **material thickness**

≥0,5 mm

- **breakthrough times of the glove material**

>480 minutes (permeation: level 6)

- **other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is
Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and va-
pours with a boiling point of > 65 °C , colour code: Brown).

Environmental exposure controls
Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>light yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>like: - Phenol</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>11,8 °C at 1.013 hPa (ECHA)</td>
</tr>
<tr>
<td>Boiling point or initial boiling point and boiling range</td>
<td>202 °C at 1.013 hPa (ECHA)</td>
</tr>
<tr>
<td>Flammability</td>
<td>this material is combustible, but will not ignite readily</td>
</tr>
<tr>
<td>Lower and upper explosion limit</td>
<td>1 vol% (LEL)</td>
</tr>
<tr>
<td>Flash point</td>
<td>86 °C at 1.013 hPa (ECHA)</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>559 °C at 1.013 hPa (ECHA) (auto-ignition temperature (liquids and gases))</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>not relevant</td>
</tr>
<tr>
<td>pH (value)</td>
<td>5 (in aqueous solution: 20 g/l, 20 °C)</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>20,19 mm²/s at 20 °C</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>22,7 g/l at 25 °C (ECHA)</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (log value):</td>
<td>1,96 (ECHA)</td>
</tr>
<tr>
<td>Soil organic carbon/water (log KOC)</td>
<td>1,539 (ECHA)</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>0,147 hPa at 25 °C</td>
</tr>
<tr>
<td>Density</td>
<td>1,03 g/cm³ at 20 °C</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>3,74 (air = 1)</td>
</tr>
</tbody>
</table>
Particle characteristics
not relevant (liquid)

Other safety parameters

Oxidising properties
none

9.2 Other information

Information with regard to physical hazard classes:
hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics:

Temperature class (EU, acc. to ATEX)
T1
Maximum permissible surface temperature on the equipment: 450°C

SECTION 10: Stability and reactivity

10.1 Reactivity
This material is not reactive under normal ambient conditions.

If heated
Vapours may form explosive mixtures with air.

10.2 Chemical stability
The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser, Nitric acid

10.4 Conditions to avoid
There are no specific conditions known which have to be avoided.

10.5 Incompatible materials
aluminium, lead, iron, copper, bronze, brass

10.6 Hazardous decomposition products
Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

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

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity
Toxic if swallowed. Toxic in contact with skin.

<table>
<thead>
<tr>
<th>Acute toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure route</td>
</tr>
<tr>
<td>oral</td>
</tr>
<tr>
<td>dermal</td>
</tr>
</tbody>
</table>

Safety data sheet
according to Regulation (EC) No. 1907/2006 (REACH)

m-Cresol ≥99 %, for synthesis

article number: 9269
Skin corrosion/irritation
Causes severe skin burns and eye damage.

Serious eye damage/eye irritation
Causes serious eye damage.

Respiratory or skin sensitisation
Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity
Shall not be classified as germ cell mutagenic.

Carcinogenicity
Shall not be classified as carcinogenic.

Reproductive toxicity
Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure
Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure
Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard
Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

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

• If in eyes
causes burns, Causes serious eye damage, risk of blindness

• If inhaled
Data are not available.

• If on skin
causes severe burns, causes poorly healing wounds

• Other information
none

11.2 Endocrine disrupting properties
Not listed.

11.3 Information on other hazards
There is no additional information.
SECTION 12: Ecological information

12.1 Toxicity
Shall not be classified as hazardous to the aquatic environment.

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Source</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>&gt;99,5 mg/l</td>
<td>aquatic invertebrates</td>
<td>ECHA</td>
<td>48 h</td>
</tr>
<tr>
<td>EC50</td>
<td>30 mg/l</td>
<td>aquatic invertebrates</td>
<td>ECHA</td>
<td>96 h</td>
</tr>
</tbody>
</table>

Biodegradation
The substance is readily biodegradable.

12.2 Process of degradability
Theoretical Oxygen Demand: 2,515 mg/mg
Theoretical Carbon Dioxide: 2,849 mg/mg

<table>
<thead>
<tr>
<th>Process</th>
<th>Degradation rate</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>biotic/abiotic</td>
<td>&gt;90 %</td>
<td>28 d</td>
</tr>
<tr>
<td>oxygen depletion</td>
<td>90 %</td>
<td>28 d</td>
</tr>
<tr>
<td>DOC removal</td>
<td>96 %</td>
<td>10 d</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential
Does not significantly accumulate in organisms.

<table>
<thead>
<tr>
<th>n-octanol/water (log KOW)</th>
<th>1,96 (ECHA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF</td>
<td>≥17 – ≤20 (ECHA)</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

<table>
<thead>
<tr>
<th>Henry's law constant</th>
<th>0,087 Pa m³/mol at 25 °C (ECHA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Organic Carbon normalised adsorption coefficient</td>
<td>1,539 (ECHA)</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment
Data are not available.

12.6 Endocrine disrupting properties
Not listed.

12.7 Other adverse effects
Data are not available.
SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information
Do not empty into drains.

Waste treatment of containers/packagings
It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

13.2 Relevant provisions relating to waste
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Waste catalogue ordinance (Germany).

13.3 Remarks
Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1 UN number or ID number
ADR/RID/ADN        UN 2076
IMDG-Code          UN 2076
ICAO-TI            UN 2076

14.2 UN proper shipping name
ADR/RID/ADN        CRESOLS, LIQUID
IMDG-Code          CRESOLS, LIQUID
ICAO-TI            Cresols, liquid

14.3 Transport hazard class(es)
ADR/RID/ADN        6.1 (8)
IMDG-Code          6.1 (8)
ICAO-TI            6.1 (8)

14.4 Packing group
ADR/RID/ADN        II
IMDG-Code          II
ICAO-TI            II

14.5 Environmental hazards
non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user
Provisions for dangerous goods (ADR) should be complied within the premises.
14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

**Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information**

Proper shipping name: CRESOLS, LIQUID

Particulars in the transport document: UN2076, CRESOLS, LIQUID, 6.1 (8), II, (D/E)

Classification code: TC1

Danger label(s): 6.1+8

Special provisions (SP): 802(ADN)

Excepted quantities (EQ): E4

Limited quantities (LQ): 100 ml

Transport category (TC): 2

Tunnel restriction code (TRC): D/E

Hazard identification No: 68

**Emergency Action Code**

Emergency Action Code: 2X

**International Maritime Dangerous Goods Code (IMDG) - Additional information**

Proper shipping name: CRESOLS, LIQUID

Particulars in the shipper’s declaration: UN2076, CRESOLS, LIQUID, 6.1 (8), II

Marine pollutant: -

Danger label(s): 6.1+8

Special provisions (SP): -

Excepted quantities (EQ): E4

Limited quantities (LQ): 100 mL

EmS: F-A, S-B

Stowage category: B

**International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information**

Proper shipping name: Cresols, liquid

Particulars in the shipper’s declaration: UN2076, Cresols, liquid, 6.1 (8), II

Danger label(s): 6.1+8

Safety data sheet according to Regulation (EC) No. 1907/2006 (REACH)

m-Cresol ≥99 %, for synthesis

article number: 9269
**Safety data sheet**
according to Regulation (EC) No. 1907/2006 (REACH)

**m-Cresol ≥99 %, for synthesis**

article number: **9269**

<table>
<thead>
<tr>
<th>Excepted quantities (EQ)</th>
<th>E4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited quantities (LQ)</td>
<td>0,5 L</td>
</tr>
</tbody>
</table>

### SECTION 15: Regulatory information

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

**Relevant provisions of the European Union (EU)**

**Restrictions according to REACH, Annex XVII**

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>Name acc. to inventory</th>
<th>CAS No</th>
<th>Restriction</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-Cresol</td>
<td>this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC</td>
<td></td>
<td>R3</td>
<td>3</td>
</tr>
<tr>
<td>m-Cresol</td>
<td>substances in tattoo inks and permanent make-up</td>
<td></td>
<td>R75</td>
<td>75</td>
</tr>
</tbody>
</table>

**Legend**

R3

1. Shall not be used in:
   - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
   - tricks and jokes,
   - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
2. Articles not complying with paragraph 1 shall not be placed on the market.
3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
   — can be used as fuel in decorative oil lamps for supply to the general public, and
   — present an aspiration hazard and are labelled with H304.
4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
   (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of children”; and, by 1 December 2010, “Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage”;
   (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: “Just a sip of grill lighter fluid may lead to life threatening lung damage”;
   (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010;
m-Cresol ≥99 %, for synthesis

1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question are present in the following concentrations:

(a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, germ cell mutagen category 1A, 1B or 2, or skin irritant category 1, 1A, 1B, or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;

(b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;

(c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;

(d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than:

(i) 0,1 % by weight, if the substance is used solely as a pH regulator;

(ii) not to be used in other cases;

(e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;

(f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Products and body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight:

(i) "Rinse-off products";

(ii) "Not to be used in products applied on mucous membranes";

(iii) "Not to be used in eye products";

(g) in the case of a substance for which a condition is specified in column h (maximum concentration in ready for use product) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;

(h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.

2. Where necessary because of the size of the package, the information marked on the package or included in the instructions for use pursuant to this paragraph shall be included instead in the instructions for use.

3. The information shall be clearly visible, easily legible and marked in a way that is indelible.

4. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise.

5. In the case of a mixture for tattooing purposes, the information shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation.

6. The information shall be marked with the following information:

(a) the statement "Mixure for use in tattoos or permanent make-up";

(b) a reference number to uniquely identify the batch;

(c) the nomenclature with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;

(d) the additional statement "pH regulator" for substances falling under point (d) of paragraph 1;

(e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;

(f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;

(g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.

8. Mixtures that do not contain the statement "Mixure for use in tattoos or permanent make-up" shall not be used for tattooing purposes.
This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

Not listed.

Seveso Directive

<table>
<thead>
<tr>
<th>No</th>
<th>Dangerous substance/hazard categories</th>
<th>Qualifying quantity (tonnes) for the application of lower and upper-tier requirements</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>not assigned</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Deco-Paint Directive

| VOC content | 100 % , 1.030 g/l |

Industrial Emissions Directive (IED)

| VOC content | 100 % |
| VOC content | 1.030 g/l |

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

Water Framework Directive (WFD)

<table>
<thead>
<tr>
<th>Name of pollutant (WFD)</th>
<th>Name acc. to inventory</th>
<th>CAS No</th>
<th>Listed in</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-Cresol</td>
<td>Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment</td>
<td>A)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend

A) Indicative list of the main pollutants

Regulation on the marketing and use of explosives precursors

not listed
m-Cresol ≥99 %, for synthesis

article number: 9269

Regulation on drug precursors
not listed

Regulation on substances that deplete the ozone layer (ODS)
not listed

Regulation concerning the export and import of hazardous chemicals (PIC)
not listed

Regulation on persistent organic pollutants (POP)
not listed

Other information
Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

National inventories

<table>
<thead>
<tr>
<th>Country</th>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU</td>
<td>AICS</td>
<td>substance is listed</td>
</tr>
<tr>
<td>CA</td>
<td>DSL</td>
<td>substance is listed</td>
</tr>
<tr>
<td>CN</td>
<td>IECSC</td>
<td>substance is listed</td>
</tr>
<tr>
<td>EU</td>
<td>ECSI</td>
<td>substance is listed</td>
</tr>
<tr>
<td>EU</td>
<td>REACH Reg.</td>
<td>substance is listed</td>
</tr>
<tr>
<td>JP</td>
<td>CSCL-ENCS</td>
<td>substance is listed</td>
</tr>
<tr>
<td>JP</td>
<td>ISHA-ENCS</td>
<td>substance is listed</td>
</tr>
<tr>
<td>KR</td>
<td>KECI</td>
<td>substance is listed</td>
</tr>
<tr>
<td>MX</td>
<td>INSQ</td>
<td>substance is listed</td>
</tr>
<tr>
<td>NZ</td>
<td>NZIoC</td>
<td>substance is listed</td>
</tr>
<tr>
<td>PH</td>
<td>PICCS</td>
<td>substance is listed</td>
</tr>
<tr>
<td>TW</td>
<td>TCSI</td>
<td>substance is listed</td>
</tr>
<tr>
<td>US</td>
<td>TSCA</td>
<td>substance is listed</td>
</tr>
</tbody>
</table>

Legend
AICS  Australian Inventory of Chemical Substances
CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS)
DSL   Domestic Substances List (DSL)
ECSI  EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC Inventory of Existing Chemical Substances Produced or Imported in China
INSQ  National Inventory of Chemical Substances
ISHA-ENCS Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI  Korea Existing Chemicals Inventory
NZIoC New Zealand Inventory of Chemicals
PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg. REACH registered substances
TCSI  Taiwan Chemical Substance Inventory
TSCA  Toxic Substance Control Act

15.2 Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this substance.
### Indication of changes (revised safety data sheet)

**Alignment to regulation:** Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

**Restructuring:** section 9, section 14

<table>
<thead>
<tr>
<th>Section</th>
<th>Former entry (text/value)</th>
<th>Actual entry (text/value)</th>
<th>Safety-relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Classification according to Regulation (EC) No 1272/2008 (CLP): GHS chapter category - Hazard class and code(s)</td>
<td>Classification according to Regulation (EC) No 1272/2008 (CLP)</td>
<td>yes</td>
</tr>
<tr>
<td>2.1</td>
<td>Classification according to Directive 1999/45/EC (DPD): Indication(s) of danger - Symbol codes - R-Phrases</td>
<td>Classification according to Directive 1999/45/EC (DPD): change in the listing (table)</td>
<td>yes</td>
</tr>
<tr>
<td>2.1</td>
<td>The most important adverse physicochemical, human health and environmental effects: Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>2.2</td>
<td>Pictograms: change in the listing (table)</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>2.2</td>
<td>Precautionary statements - prevention: change in the listing (table)</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>2.2</td>
<td>Precautionary statements - response: change in the listing (table)</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>2.2</td>
<td>Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>2.2</td>
<td>Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>2.3</td>
<td>Other hazards: There is no additional information.</td>
<td>Other hazards: This material is combustible, but will not ignite readily.</td>
<td>yes</td>
</tr>
<tr>
<td>2.3</td>
<td>Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB.</td>
<td></td>
<td>yes</td>
</tr>
</tbody>
</table>
### Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>ADR/RID/ADN</td>
<td>Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)</td>
</tr>
<tr>
<td>ATE</td>
<td>Acute Toxicity Estimate</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations (see IATA/DGR)</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No-Effect Level</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval</td>
</tr>
<tr>
<td>EC No</td>
<td>The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>EmS</td>
<td>Emergency Schedule</td>
</tr>
<tr>
<td>GHS</td>
<td>&quot;Globally Harmonized System of Classification and Labelling of Chemicals&quot; developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>ICAO-TI</td>
<td>Technical instructions for the safe transport of dangerous goods by air</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>IMDG-Code</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>index No</td>
<td>The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval</td>
</tr>
<tr>
<td>LEL</td>
<td>Lower explosion limit (LEL)</td>
</tr>
<tr>
<td>NLP</td>
<td>No-Longer Polymer</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No-Effect Concentration</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
</tbody>
</table>
Abbr. | Descriptions of used abbreviations
--- | ---
RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
SVHC | Substance of Very High Concern
VOC | Volatile Organic Compounds
vPvB | Very Persistent and very Bioaccumulative

Key literature references and sources for data

List of relevant phrases (code and full text as stated in section 2 and 3)

<table>
<thead>
<tr>
<th>Code</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301</td>
<td>Toxic if swallowed.</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
</tbody>
</table>

Disclaimer
This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.