

1 Identification

Product identifier

Product name: m-Cresol

Stock number: 36487

CAS Number:
108-39-4

EC number:
203-577-9

Index number:
604-004-00-9

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

Identified use: SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar
Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757
Email: tech@alfa.com
www.alfa.com

Information Department: Health, Safety and Environmental Department

Emergency telephone number:

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

2 Hazard(s) identification

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)



GHS06 Skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 2 H310 Fatal in contact with skin.



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

H227 Combustible liquid.

Hazards not otherwise classified No information known.

Label elements

GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

Hazard pictograms



GHS05 GHS06

Signal word

Danger

Hazard statements

H227 Combustible liquid.

H300+H310 Fatal if swallowed or in contact with skin.

H314 Causes severe skin burns and eye damage.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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 Take off immediately all contaminated clothing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification

B3 - Combustible liquid

D1A - Very toxic material causing immediate and serious toxic effects

D2B - Toxic material causing other toxic effects

E - Corrosive material



Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH 3 Health (acute effects) = 3

FIRE 1 Flammability = 1

REACTIVITY 1 Physical Hazard = 1

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Product name: m-Cresol

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3 Composition/information on ingredients

Chemical characterization: Substances
CAS# Description:
108-39-4 m-Cresol
Identification number(s):
EC number: 203-577-9
Index number: 604-004-00-9

4 First-aid measures

Description of first aid measures
General information
Immediately remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.
After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.
After skin contact
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing Do not induce vomiting; immediately call for medical help.
Information for doctor
Most important symptoms and effects, both acute and delayed
Causes severe skin burns.
Causes serious eye damage.
Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Environmental precautions: Do not allow material to be released to the environment without proper governmental permits.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose of contaminated material as waste according to section 13.
Ensure adequate ventilation.
Prevention of secondary hazards: Keep away from ignition sources.
Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling
Precautions for safe handling
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Information about protection against explosions and fires: Keep ignition sources away.
Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Store away from oxidizing agents.
Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems:
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
Components with limit values that require monitoring at the workplace:

Cresol (all isomers)
ppm
ACGIH TLV 22 m2/g (inhalable fraction & vapor)
Belgium TWA 5 (skin)
Denmark TWA 5 (skin)
Finland TWA 5; 10-STEL (skin)
France TWA 5 (skin)
Germany TWA 5
Hungary TWA 5; 10-STEL
Ireland TWA 5 (skin)
Netherlands TWA 5 (skin)
Poland TWA 5 mg/m3
Russia TWA 5; 0.5-STEL (skin)
Switzerland TWA 5; 10-STEL (skin)
United Kingdom TWA 5 (skin)

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USA

Product name: m-Cresol	
USA PEL 5 (skin)	(Contd. of page 2)
Control parameters	
Components with limit values that require monitoring at the workplace:	
108-39-4 m-Cresol (100.0%)	
PEL (USA)	Long-term value: 22 mg/m ³ , 5 ppm Skin
REL (USA)	Long-term value: 10 mg/m ³ , 2.3 ppm
TLV (USA)	Long-term value: 20* mg/m ³ Skin,*as inhalable fraction and vapor
EL (Canada)	Long-term value: 10 mg/m ³ Skin
Additional information: No data	
Exposure controls	
Personal protective equipment	
General protective and hygienic measures	
The usual precautionary measures for handling chemicals should be followed.	
Keep away from foodstuffs, beverages and feed.	
Remove all soiled and contaminated clothing immediately.	
Wash hands before breaks and at the end of work.	
Store protective clothing separately.	
Avoid contact with the eyes and skin.	
Maintain an ergonomically appropriate working environment.	
Breathing equipment: Use suitable respirator when high concentrations are present.	
Protection of hands:	
Impervious gloves	
Check protective gloves prior to each use for their proper condition.	
The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.	
Eye protection:	
Tightly sealed goggles	
Full face protection	
Body protection: Protective work clothing.	
9 Physical and chemical properties	
Information on basic physical and chemical properties	
General Information	
Appearance:	
Form:	Liquid
Color:	Light yellow
Odor:	Phenol-like
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	11-12 °C (52-54 °F)
Boiling point/Boiling range:	202-204 °C (396-399 °F)
Sublimation temperature / start:	Not determined
Flash point:	86 °C (187 °F)
Flammability (solid, gaseous)	Not determined.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Auto igniting:	Not determined.
Danger of explosion: Product does not present an explosion hazard.	
Explosion limits:	
Lower:	1.1 Vol %
Upper:	1.4 Vol %
Vapor pressure:	Not determined
Density at 20 °C (68 °F):	1.034 g/cm ³ (8.629 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Not determined
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
Other information	No further relevant information available.
10 Stability and reactivity	
Reactivity No information known.	
Chemical stability Stable under recommended storage conditions.	
Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.	
Possibility of hazardous reactions No dangerous reactions known	
Conditions to avoid No further relevant information available.	
Incompatible materials:	
Bases	
Oxidizing agents	
Hazardous decomposition products: Carbon monoxide and carbon dioxide	
11 Toxicological information	
Information on toxicological effects	
Acute toxicity:	
Fatal in contact with skin.	
Fatal if swallowed.	
Danger through skin absorption.	
Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.	
LD/LC50 values that are relevant for classification: No data	
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Product name: m-Cresol

(Contd. of page 3)

Skin irritation or corrosion: Causes severe skin burns.
Eye irritation or corrosion: Causes serious eye damage.
Sensitization: No sensitizing effects known.
Germ cell mutagenicity: No effects known.
Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
Reproductive toxicity: No effects known.
Specific target organ system toxicity - repeated exposure: No effects known.
Specific target organ system toxicity - single exposure: No effects known.
Aspiration hazard: No effects known.
Other information (about experimental toxicology): Mutagenic effects have been observed with humans.
Subacute to chronic toxicity: No effects known.
Subacute to chronic toxicity:
Cresol is toxic by ingestion and skin contact. Corrosive to skin, eyes and mucous membranes. Absorption may cause damage to the liver, kidneys and central nervous system.
Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.





12 Ecological information

Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability No further relevant information available.
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Additional ecological information:
General notes:
Do not allow material to be released to the environment without proper governmental permits.
Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.
Avoid transfer into the environment.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods
Recommendation Consult state, local or national regulations to ensure proper disposal.
Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14 Transport information

UN-Number DOT, IMDG, IATA	UN2076
UN proper shipping name DOT IMDG, IATA	Cresols, liquid CRESOLS, LIQUID
Transport hazard class(es) DOT	
 	
Class Label Class Label IMDG, IATA	6.1 Toxic substances. 6.1+8 6.1 (TC1) Toxic substances 6.1+8
 	
Class Label	6.1 Toxic substances. 6.1+8
Packing group DOT, IMDG, IATA	II
Environmental hazards:	Not applicable.
Special precautions for user	Warning: Toxic substances
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT Marine Pollutant (DOT):	No
UN "Model Regulation":	UN2076, Cresols, liquid, 6.1 (8), II

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)
Hazard pictograms



GHS05 GHS06

Signal word Danger
Hazard statements
H227 Combustible liquid.
H300+H310 Fatal if swallowed or in contact with skin.

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USA

Product name: m-Cresol	
<div>H314 Causes severe skin burns and eye damage.</div> <div>Precautionary statements</div> <div>P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.</div> <div>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...</div> <div>P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</div> <div>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</div> <div>P361 Take off immediately all contaminated clothing.</div> <div>P405 Store locked up.</div> <div>P501 Dispose of contents/container in accordance with local/regional/national/international regulations.</div> <div>National regulations</div> <div>All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.</div> <div>SARA Section 313 (specific toxic chemical listings)</div> <div>108-39-4 m-Cresol</div> <div>California Proposition 65</div> <div>Prop 65 - Chemicals known to cause cancer Substance is not listed.</div> <div>Prop 65 - Developmental toxicity Substance is not listed.</div> <div>Prop 65 - Developmental toxicity, female Substance is not listed.</div> <div>Prop 65 - Developmental toxicity, male Substance is not listed.</div> <div>Information about limitation of use:</div> <div>For use only by technically qualified individuals.</div> <div>This substance is subject to a Significant New Use Rule (SNUR) promulgated under Section 5(a)(2) of the Toxic Substances Control Act (TSCA). See 40 CFR 721.</div> <div>This product is being sold for research and development use.</div> <div>This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.</div> <div>Other regulations, limitations and prohibitive regulations</div> <div>Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.</div> <div>The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.</div> <div>Substance is not listed.</div> <div>Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.</div> <div>Chemical safety assessment: A Chemical Safety Assessment has not been carried out.</div>	
16 Other information	<div>Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.</div> <div>Department issuing SDS: Global Marketing Department</div> <div>Date of preparation / last revision 11/23/2015 / -</div> <div>Abbreviations and acronyms:</div> <div>ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</div> <div>IMDG: International Maritime Code for Dangerous Goods</div> <div>DOT: US Department of Transportation</div> <div>IATA: International Air Transport Association</div> <div>EINECS: European Inventory of Existing Commercial Chemical Substances</div> <div>CAS: Chemical Abstracts Service (division of the American Chemical Society)</div> <div>HMIS: Hazardous Materials Identification System (USA)</div> <div>WHMIS: Workplace Hazardous Materials Information System (Canada)</div> <div>LC50: Lethal concentration, 50 percent</div> <div>LD50: Lethal dose, 50 percent</div> <div>vPvB: very Persistent and very Bioaccumulative</div> <div>ACGIH: American Conference of Governmental Industrial Hygienists (USA)</div> <div>OSHA: Occupational Safety and Health Administration (USA)</div> <div>NTP: National Toxicology Program (USA)</div> <div>IARC: International Agency for Research on Cancer</div> <div>EPA: Environmental Protection Agency (USA)</div>
USA	