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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : 4-CHLORO-m-CRESOL

Product code : 13600

Identification of the product : 4-chloro-3-methylphenol

CAS No : 59-50-7

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

Identified uses : Chemical for synthesis

1.3. Details of the supplier of the safety data sheet

Company identification: MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor,

Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772.

Fax: + 91 22 2203 4442. Email: info@molylchem.net

Works: Plot No./9, Badlapur M.I.D.C.,OPP.Shobhavat Textile Co., Kulgaon, Badlapur (E), Dist.-Thane-421 503

1.4. Emergency telephone number

Emergency number: +91 22 4066 8111 (10:00am - 6:00 pm).

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification:

Xn; R21/22 Xi; R41

R43

N; R50

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards: Acute toxicity, Oral - Category 4 - Warning (CLP: Acute Tox. 4)

H302

Skin sensitisation - Category 1 - Warning (CLP : Skin Sens. 1) H317 Serious eye damage - Category 1 - Danger (CLP : Eye Dam. 1) H318

Acute toxicity, dermal - Category 4 - Warning (CLP: Acute Tox. 4) H312

Environmental hazards: Hazardous to the aquatic environment - Acute hazard -

Category 1 - Warning (CLP: Aquatic Acute 1) H400

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

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Symbol(s):

Xn: Harmful

N: Dangerous for the environment

R Phrase(s):

R21/22: Harmful in contact with skin and if swallowed.

R41: Risk of serious damage to eyes.

R43: May cause sensitization by skin contact.

R50: Very toxic to aquatic organisms.

S Phrase(s):

S2: Keep out of the reach of children.

S26: In case of contact with eyes, rinse immediately with plenty of water

and seek medical advice.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S61: Avoid release to the environment. Refer to special instructions/Safety

data sheets.

Labelling Regulation EC 1272/2008 (CLP)

Signal words: Danger

Hazard statements:

H318: Causes serious eye damage.
H302: Harmful if swallowed.
H312: Harmful in contact with skin.

H317: May cause an allergic skin reaction.

H400: Very toxic to aquatic life.

Precautionary statements

• General:

P102: Keep out of reach of children.

P103: Read label before use.

P101: If medical advice is needed, have product container or label at hand.

• Prevention :

P280: Wear protective gloves, protective clothing, eye protection, face

protection.

P261: Avoid breathing dust, fume, gas, mist, vapours, spray.

P273: Avoid release to the environment. P264: Wash thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P272: Contaminated work clothing should not be allowed out of the

workplace.

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• Response :

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P301+P312: IF SWALLOWED : Call a POISON CENTER or doctor if you feel

unwell.

P391: Collect spillage.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313: If skin irritation or rash occurs: Get medical advice.

P363: Wash contaminated clothing before reuse.

• Disposal considerations :

P501: Dispose of this material and its container to hazardous

or special waste collection point, in accordance with local,

regional, national and/or international regulation.

2.3. Other hazards

Other hazards: The substance does not fulfil the criteria to be identified as PBT

substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

3.1 Substances

Formula: C₇H₇ClO

Molecular weight: 142.59 g/mol

CAS-No.: 59-50-7

EC-No.: 200-431-6

Index-No.: 604-014-00-3

Component Classification Concentration CAS-No. 59-50-7 Acute Tox. 4; Skin Corr. <= 100 %

EC-No. 200-431-6 1C; Eye Dam. 1; Skin Index-No. 604-014-00-3 Sens. 1B; STOT SE 3;

Aquatic Acute 1; Aquatic Chronic 3; H302, H312, H314, H318, H317, H335,

H400, H412

M-Factor - Aquatic Acute:

10

4. First aid measures

4.1. Description of first aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendanc.

If inhaled

After inhalation: fresh air. Call in physician.

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In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture

Carbon oxides

Hydrogen chloride gas

Combustible.

Fire may cause evolution of:

Hydrogen chloride gas

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. Advice for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure

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adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4. Reference to other sections

For disposal see section 13.

7. Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Recommended storage temperature see product label.

Storage class

Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls/personal protection

8.1. Exposure controls

Personal protection : Avoid all unnecessary exposure.

Respiratory protection : Wear approved mask. **Hand protection** : Wear protective gloves.

Skin protection: Wear suitable protective clothing.Eye protection: Chemical goggles or safety glasses.Others: When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits: No data available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Physical state powder

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b) Color colorless c) Odor characteristic

d) Melting point/ Melting point/range: 63 - 65 °C freezing point Melting point/range: 63 - 65 °C

e) Initial boiling 235 °C - lit.

point and boiling range

f) Flammability (solid, gas) No data available g) Upper/lower No data available

flammability or explosive limits

h) Flash point 118.0 °C - closed cup - DIN 51758

i) Autoignition temperature 590.0 °C j) Decomposition temperature 200.0 °C k) pH 5.25 at 30 °C

l) Viscosity Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

m) Water solubility 4 g/l at $30 \,^{\circ}\text{C}$ - soluble

n) Partition coefficient:

n-octanol/water log Pow: 0.47 at 30 °C - Bioaccumulation is not expected.

o) Vapor pressure 6.9 hPa at 100.0 °C 0.1 hPa at 20.0 °C

p) Density
Relative density
q) Relative vapor density
r) Particle characteristics
s) Explosive properties

1.335 g/cm3 at 20 °C
No data available
No data available
No data available

t) Oxidizing properties none

9.2. Other information

Surface tension 61.49 mN/m at 1g/l at 20 °C

- Surface tension

Dissociation constant 9.4 at 20 °C

- OECD Test Guideline 112

10. Stability and reactivity

10.1. Reactivity

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2. Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3. Possibility of hazardous reactions

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Violent reactions possible with:

Oxidizing agents

Acid anhydrides

acid halides

Bases

10.4. Conditions to avoid

Strong heating.

10.5. Incompatible materials

Copper, Copper alloys, brass, Mild steel

10.6. Hazardous decomposition products

In the event of fire: see section 5

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Dermal: Harmful in contact with skin. Oral: Harmful if swallowed.

Skin corrosion/irritation: Not classified pH: 5.6

Serious eye damage/irritation : Causes serious eye damage. pH: 5.6 Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity:

Carcinogenicity:

Reproductive toxicity:

STOT-single exposure:

STOT-repeated exposure:

Aspiration hazard:

Not classified

Not classified

Not classified

Not classified

Potential adverse human health: Harmful if swallowed. Harmful in contact with skin.

effects and symptoms

12. Ecological information

12.1. Toxicity

Ecology - water : Very toxic to aquatic life.

12.2. Persistence - degradability

No additional information available

12.3. Bioaccumulative potential

Log Pow 3.02

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

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13. Disposal considerations

13.1. Waste treatment methods

Product/Packaging : Dispose of contents/container to hazardous or special waste collection disposal recommendations point, in accordance with local, regional, national and/or international

regulation.

14. Transport information

14.1 UN number

ADR/RID: 3077 IMDG: 3077 IATA: 3077

14.2 UN proper shipping name

ADR/RID: CHLOROCRESOLS, SOLID IMDG: CHLOROCRESOLS, SOLID CHLOROCRESOLS, SOLID CHLOROCRESOLS, SOLID

14.3 Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: NO IMDG Marine pollutant: yes IATA: no

14.6 Special precautions for user

Tunnel restriction code : (D/E)

Further information : No data available

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2. Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. Other information

Abbreviations and acronyms:

PBT: persistent, bioaccumulative and toxic.

vPvB: very persistent and very bioaccumulative

Sources of key data used: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Further information: None.

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Prepared by: MOLYCHEM (INDIA)

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