

# M-CRESOL PURPLE

GHS Safety Data Sheet

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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

M-CRESOL PURPLE

### OTHER NAMES

C21-H18-O5-S, "cresol purple", "3-cresol purple", "3-cresol purple", m-cresolsulphonphthalein, m-cresolsulphonphthalein, m-cresolsulfonphthalein, m-cresolsulfonphthalein

### PRODUCT USE

Laboratory chemical used in solution as an acid/base (pH) indicator.

### SUPPLIER

Company: S D FINE - CHEM LIMITED

Address:

315- 317, T.V.IND.ESTATE,

248 WORLI ROAD,

MUMBAI- 400 030, INDIA

technical@sdfine.com

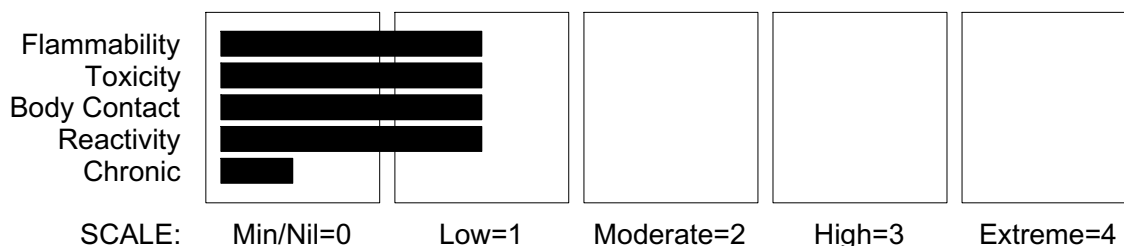
Telephone: 91- 22 24959898

Telephone: 91- 22 24959899

Fax: 91- 22 24937232

## Section 2 - HAZARDS IDENTIFICATION

### HAZARD RATINGS



### EMERGENCY OVERVIEW

#### HAZARD

Not hazardous

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME             | CAS RN    | %   |
|------------------|-----------|-----|
| m- cresol purple | 2303-01-7 | >98 |

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## Section 4 - FIRST AID MEASURES

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### SWALLOWED

- If poisoning occurs, contact a doctor or Poisons Information Centre.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

### EYE

- If this product comes in contact with the eyes:
- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Seek medical attention without delay; if pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

### SKIN

- If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

### INHALED

- If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

### NOTES TO PHYSICIAN

- Treat symptomatically.

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## Section 5 - FIRE FIGHTING MEASURES

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### EXTINGUISHING MEDIA

- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

### FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

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## Section 5 - FIRE FIGHTING MEASURES

### FIRE/EXPLOSION HAZARD

- Solid which exhibits difficult combustion or is difficult to ignite.
  - Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion.
  - Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited; once initiated larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.
  - A dust explosion may release of large quantities of gaseous products; this in turn creates a subsequent pressure rise of explosive force capable of damaging plant and buildings and injuring people.
  - Usually the initial or primary explosion takes place in a confined space such as plant or machinery, and can be of sufficient force to damage or rupture the plant. If the shock wave from the primary explosion enters the surrounding area, it will disturb any settled dust layers, forming a second dust cloud, and often initiate a much larger secondary explosion. All large scale explosions have resulted from chain reactions of this type.
  - Dry dust can also be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport.
  - Build-up of electrostatic charge may be prevented by bonding and grounding.
  - Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.
  - All movable parts coming in contact with this material should have a speed of less than 1-metre/sec.
- Decomposes on heating and produces toxic fumes of sulfur oxides (SO<sub>x</sub>).

### FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

### MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing dust and contact with skin and eyes.
- Wear protective clothing, gloves, safety glasses and dust respirator.
- Use dry clean up procedures and avoid generating dust.
- Sweep up, shovel up or
- Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).
- Place spilled material in clean, dry, sealable, labelled container.

### MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment and dust respirator.
- Prevent spillage from entering drains, sewers or water courses.
- Avoid generating dust.
- Sweep, shovel up. Recover product wherever possible.
- Put residues in labelled plastic bags or other containers for disposal.
- If contamination of drains or waterways occurs, advise emergency services.

### PERSONAL PROTECTION

Glasses:

Not normally required.

Respirator:

Particulate

## Section 6 - ACCIDENTAL RELEASE MEASURES

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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**Personal Protective Equipment advice is contained in Section 8 of the MSDS.**

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## Section 7 - HANDLING AND STORAGE

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### PROCEDURE FOR HANDLING

- Earth and secure containers when dispensing or pouring.
- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- When handling DO NOT eat, drink or smoke.
- Always wash hands with soap and water after handling.
- Avoid physical damage to containers.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.

### SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

### STORAGE INCOMPATIBILITY

- Avoid reaction with oxidising agents.

### STORAGE REQUIREMENTS

- Store in original containers.
  - Keep containers securely sealed.
  - Store in a cool, dry, well-ventilated area.
  - Store away from incompatible materials and foodstuff containers.
  - Protect containers against physical damage and check regularly for leaks.
  - Observe manufacturer's storing and handling recommendations.
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### SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



*+: May be stored together*

*O: May be stored together with specific preventions*

*X: Must not be stored together*

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

The following materials had no OELs on our records

- m- cresol purple:

CAS:2303- 01- 7

### MATERIAL DATA

M-CRESOL PURPLE:

■ These "dusts" have little adverse effect on the lungs and do not produce toxic effects or organic disease. Although there is no dust which does not evoke some cellular response at sufficiently high concentrations, the cellular response caused by P.N.O.C.s has the following characteristics:

- the architecture of the air spaces remain intact,
- scar tissue (collagen) is not synthesised to any degree,
- tissue reaction is potentially reversible.

Extensive concentrations of P.N.O.C.s may:

- seriously reduce visibility,
- cause unpleasant deposits in the eyes, ears and nasal passages,
- contribute to skin or mucous membrane injury by chemical or mechanical action, per se, or by the rigorous skin cleansing procedures necessary for their removal. [ACGIH]

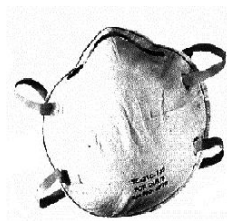
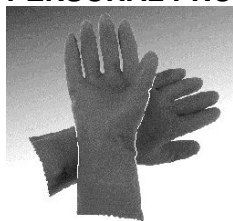
This limit does not apply:

- to brief exposures to higher concentrations
- nor does it apply to those substances that may cause physiological impairment at lower concentrations but for which a TLV has as yet to be determined.

This exposure standard applies to particles which

- are insoluble or poorly soluble\* in water or, preferably, in aqueous lung fluid (if data is available) and
- have a low toxicity (i.e.. are not cytotoxic, genotoxic, or otherwise chemically reactive and do not emit ionizing radiation, cause immune sensitization, or cause toxic effects other than by inflammation or by a mechanism of lung overload).

### PERSONAL PROTECTION



#### EYE

- No special equipment for minor exposure i.e. when handling small quantities.

• OTHERWISE:

- Safety glasses with side shields.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

#### HANDS/FEET

- No special equipment needed when handling small quantities.

OTHERWISE: Wear chemical protective gloves, eg. PVC.

Safety footwear may be required.

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### OTHER

■ No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Barrier cream.
- Eyewash unit.

### RESPIRATOR

| Protection Factor | Half- Face Respirator | Full- Face Respirator | Powered Air Respirator |
|-------------------|-----------------------|-----------------------|------------------------|
| 10 x ES           | P1 Air- line*         | - -                   | PAPR- P1 -             |
| 50 x ES           | Air- line**           | P2                    | PAPR- P2               |
| 100 x ES          | -                     | P3                    | -                      |
|                   |                       | Air- line*            | -                      |
| 100+ x ES         | -                     | Air- line**           | PAPR- P3               |

\* - Negative pressure demand

\*\* - Continuous flow.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific data (if available), or your Occupational Health and Safety Advisor.

### ENGINEERING CONTROLS

■ General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required. Use ventilated helmet or air-line hood to provide clean air at the breathing zone. If risk of overexposure exists, wear approved respirator.- Correct fit is essential to obtain adequate protection. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:

solvent, vapours, degreasing etc., evaporating from tank (in still air).

aerosols, fumes from pouring operations,

intermittent container filling, low speed

conveyer transfers, welding, spray drift,

plating acid fumes, pickling (released at low velocity into zone of active generation)

direct spray, spray painting in shallow booths,

drum filling, conveyer loading, crusher dusts,

gas discharge (active generation into zone of rapid air motion)

grinding, abrasive blasting, tumbling, high

speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).

Air Speed:

0.25- 0.5 m/s (50- 100 f/min.)

0.5- 1 m/s (100- 200 f/min.)

1- 2.5 m/s (200- 500 f/min.)

2.5- 10 m/s (500- 2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range

1: Room air currents minimal or favourable to capture

2: Contaminants of low toxicity or of nuisance value only.

Upper end of the range

1: Disturbing room air currents

2: Contaminants of high toxicity

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

3: Intermittent, low production.  
4: Large hood or large air mass in motion

3: High production, heavy use  
4: Small hood- local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Dark blue powder. No odour. Soluble in water.  
Acid range pH 1.2-2.8 red to yellow;  
alkaline range pH 7.4-9.0 yellow to purple.

### PHYSICAL PROPERTIES

Solid.  
Mixes with water.

|                                 |                 |                           |                 |
|---------------------------------|-----------------|---------------------------|-----------------|
| State                           | Divided solid   | Molecular Weight          | 382.44          |
| Melting Range (°C)              | Not available.  | Boiling Range (°C)        | Not applicable. |
| Solubility in water (g/L)       | Miscible        | Flash Point (°C)          | Not applicable  |
| pH (1% solution)                | Not available.  | Decomposition Temp (°C)   | Not available.  |
| pH (as supplied)                | Not applicable  | Autoignition Temp (°C)    | Not available.  |
| Vapour Pressure (kPa)           | Not applicable. | Upper Explosive Limit (%) | Not available.  |
| Specific Gravity (water=1)      | Not available.  | Lower Explosive Limit (%) | Not available.  |
| Relative Vapour Density (air=1) | Not applicable. | Volatile Component (%vol) | Not applicable. |
| Evaporation Rate                | Not applicable  |                           |                 |

## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

*For incompatible materials - refer to Section 7 - Handling and Storage.*

## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

##### SWALLOWED

■ Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are

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# M-CRESOL PURPLE

## Section 11 - TOXICOLOGICAL INFORMATION

generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

### EYE

- Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
- The dust may produce eye discomfort causing smarting, pain and redness.

### SKIN

- The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

### INHALED

- The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
- Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.

### CHRONIC HEALTH EFFECTS

- Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts. No human exposure data available. For this reason health effects described are based on experience with chemically related materials. As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

### TOXICITY AND IRRITATION

- No significant acute toxicological data identified in literature search.

## Section 12 - ECOLOGICAL INFORMATION

No data

### Ecotoxicity

| Ingredient       | Persistence:<br>Water/Soil | Persistence: Air | Bioaccumulation | Mobility |
|------------------|----------------------------|------------------|-----------------|----------|
| m- cresol purple | HIGH                       |                  | LOW             | LOW      |

## Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

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## Section 14 - TRANSPORTATION INFORMATION

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### HAZCHEM:

☐ None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

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## Section 15 - REGULATORY INFORMATION

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### REGULATIONS

**m-cresol purple (CAS: 2303-01-7) is found on the following regulatory lists;**

"Australia Inventory of Chemical Substances (AICS)"

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## Section 16 - OTHER INFORMATION

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■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

The above information is believed to be accurate and represent the best information currently available to us, but does not represent any warranty expressed or implied of the properties of the product. User should make their own investigation to determine the suitability of the information for their particular purpose.

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