Safety Data Sheet LACTOPHENOL COTTON BLUE STAIN

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SECTION 1: Identification

GHS Product identifier

Product name	LACTOPHENOL COTTON BLUE STAIN
Product number	0323

Recommended use of the chemical and restrictions on use

Lactophenol Cotton Blue Solution is a mounting medium and staining agent used in the preparation of slides for microscopic examination of fungi.

Supplier's details

Name	ChemSupply Australia Pty Ltd
Address	38-50 Bedford Street 5013 Gillman South Australia Australia
Telephone	08 8440 2000
email	www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, dermal, Cat. 4
- Acute toxicity, inhalation, Cat. 4
- Acute toxicity, oral, Cat. 4
- Germ cell mutagenicity, Cat. 2
- Serious eye damage/eye irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1B
- Specific target organ toxicity following repeated exposure, Cat. 2

GHS label elements, including precautionary statements

Pictograms

Signal word	**Danger**
Hazard statement(s)	
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H332	Harmful if inhaled
H341	Suspected of causing genetic defects
H373	May cause damage to organs through prolonged or repeated exposure
Precautionary statement(s)	
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physcian if you feel unwell,
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER/doctor/physcian
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Composition, information on ingredients: Constituent of coal tar and is formed during the natural decomposition of organic materials; in forest fires; and by atmospheric degradation of benzene in the presence of light; volatile component of liquid manure and is a normal metabolic by-product found in human tissues, urine, feces, saliva and sweat.

Other components either not classified as Hazardous under the GHS, or below cut-off concentrations to be classified as Hazardous.

Components

Component	CAS no.	Concentration
L-Lactic acid, anhydrous (EC no.: 201-196-2; Index no.: 607-743-00-5)	**79-33-4**	**<= 20 % (weight)**
CLASSIFICATIONS: Skin corrosion/irritation, Cat. 1C; Serious eye damage/eye irritation, Cat. 1. HAZARDS: H314 - Causes severe skin burns and eye damage; H318 - Causes serious eye damage.		
PHENOL (EC no.: 203-632-7; Index no.: 604-001-00-2)	**108-95-2**	**<= 20 % (weight)**
CLASSIFICATIONS: Germ cell mutagenicity, Cat. 2; Acute toxicity, inhalation, Cat. 3; Acute toxicity, dermal, Cat. 3; Acute toxicity, oral, Cat. 3; Specific target organ toxicity following repeated exposure, Cat. 2; Skin corrosion/irritation, Cat. 1B. HAZARDS: H301 - Toxic if swallowed; H311 - Toxic in contact with skin; H314 - Causes severe skin burns and eye damage; H331 - Toxic if inhaled; H341 - Suspected of causing genetic defects [route]; H373 - May cause damage to organs [organs] through prolonged or repeated exposure [route]. [SCLs/M-factors/ATEs]: *; Skin Corr. 1B; H314: C ≥ 3 %; Skin Irrit. 2; H315: 1 % ≤ C < 3 %; Eye Irrit. 2; H319: 1 % ≤ C < 3 %		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If inhaled, remove from contaminated area to fresh air immediately, avoid becoming a casualty. Make patient comfortable, keep warm and at rest until fully recovered. If breathing is difficult (or develops a bluish skin discolouration), supply oxygen by a qualified person. Apply artificial respiration with a respiratory medical device if not breathing. Do not use mouth to mouth resuscitation. Immediately medical attention is required.
In case of skin contact	Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek immediate medical advice /attention depending on the severity.
In case of eye contact	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical assistance.
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

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

Indication of immediate medical attention and special treatment needed, if necessary
For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media
Small fire: Use dry chemical, CO2 or water spray. If safe to do so, move undamaged containers from fire area.
Large fire: Use dry chemical, CO2, foam or water spray - Do not use water jets.

Specific hazards arising from the chemical
Hazards from Combustion Products: Incomplete combustion may produce irritating fumes.

Special protective actions for fire-fighters
Wear SCBA and chemical splash suit. Fully-encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Methods and materials for containment and cleaning up
Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.

SECTION 7: Handling and storage

Precautions for safe handling
Avoid contact with skin, eyes and clothing. Wear appropriate protective clothing, safety glasses, gloves. Wash hands and face thoroughly after working with material. Remove contaminated clothing and wash before re-use. Discard contaminated shoes. Avoid inhalation and ingestion. Under no circumstances eat, drink or smoke while handling this material. If ingested, seek medical advice immediately and show the container or the label. Use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid prolonged or repeated exposure.

Conditions for safe storage, including any incompatibilities
Store in tightly closed containers, in a cool, dry, ventilated area away from sources of heat, food or other chemicals.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls
Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection
Clean impervious clothing should be worn. Clothing for protection against
chemicals should comply with AS 3765 Clothing for Protection Against Hazardous
Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection
Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection: Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection
If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Blue liquid.
Color	No data available.
Odor	Phenol - Distinct, sharp, medicinal, sweet, acrid, tarry odour.
Odor threshold	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.

Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	No data available.
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes
No data available.

Further safety characteristics (supplemental)
No data available.

SECTION 10: Stability and reactivity

Reactivity
Stable under normal conditions of storage and handling.

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
Hazardous Polymerization: Contact with alkali and metal hydroxides (e.g. aluminium hydroxide) or anhydrous metal chlorides (tin, iron, aluminium) may result in hazardous polymerization.

Conditions to avoid
Avoid storing in direct sunlight and avoid extremes of temperature.

Incompatible materials
Oxidising agents and strong bases.

Hazardous decomposition products
No data available.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Ingestion: Phenol: Toxic if swallowed. Corrosive and causes severe irritation, swelling, burning pain in mouth and throat, burns and damage to the mouth, throat and stomach. May cause perforation of the digestive tract. Causes digestive tract burns with immediate pain, swelling of the throat, convulsions, and possible coma. Aspiration may lead to pulmonary oedema. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause muscular weakness, decreased blood pressure, irregular breathing, shock, collapse, unconsciousness, coma and possible death due to respiratory failure. Overexposure may cause methaemoglobinaemia. Methaemoglobinaemia is characterized by dizziness, drowsiness,

headache, shortness of breath, cyanosis (bluish discolouration of skin due to deficient oxygenation of the blood), rapid heart rate and chocolate-brown coloured blood. May cause cardiac abnormalities. May cause kidney and liver damage. Death can occur rapidly following ingestion. Ingestion is not a typical route of occupational exposure.

Inhalation: Phenol: Toxic by inhalation. May cause severe irritation of nose, throat, respiratory tract and lungs with coughing, burns, breathing difficulty, and possible coma. Breathing vapour, dust or mist may result in digestive disturbances (vomiting, difficulty in swallowing, nausea, vomiting, diarrhoea, loss of appetite). May also cause pallor, weakness, darkened urine, headache, sweating, convulsions, cyanosis (bluish skin due to deficient oxygenation of the blood), unconsciousness, fatigue, pulmonary oedema and coma. Inhalation at high concentrations may cause CNS depression, asphixiation, and death.

// ----- From the Suggestion report (08/07/2024, 8:36 AM) ----- //
The ATE (dermal) of the mixture is: 1500 mg/kg bw

// ----- From the Suggestion report (08/07/2024, 8:36 AM) ----- //
The ATE (gas inhalation) of the mixture is: 3500 ppmV

// ----- From the Suggestion report (08/07/2024, 8:36 AM) ----- //
The ATE (oral) of the mixture is: 500 mg/kg bw

Skin corrosion/irritation
Phenol: Toxic in contact with skin. Corrosive following skin contact. Skin contact and absorption is the most common route of occupational exposure. Repeated contact with dilute solutions or even brief contact with concentrated solutions can pose a risk to life. Direct skin contact results in white, wrinkled discolouration, followed by severe burns, but may be disguised by a loss in pain sensation due to local anesthetizing effects (can cause numbness or slight tingling). However, even minor contact can result in corrosive injury with burns, blisters, permanent skin damage and gangrene. Readily absorbed through the skin in all forms (solid, solutions and vapour) and can cause harmful effects. Signs and symptoms of phenol toxicity develop rapidly and include central nervous system effects, muscle weakness, tremors, loss of coordination, effects on the heart and blood vessels, shock, sudden collapse, coma, convulsions, lung and kidney damage and death. There are several reports of fatalities following extensive skin contact (greater than 25% of the skin surface) with concentrated phenol.

Serious eye damage/irritation
Phenol: Risk of serious damage to eyes. Corrosive to the eyes. Solutions can cause severe irritation, eye burns, redness, pain, blurred vision and permanent damage, including blindness. Vapours are irritating to eyes.

Respiratory or skin sensitization
No data available.

Germ cell mutagenicity
Suspected of causing genetic defects

Carcinogenicity
Phenol [108-95-2] is evaluated in the IARC Monographs (Vol. 47, Vol. 71; 1999) as Group 3: Not classifiable as to carcinogenicity to humans.

Reproductive toxicity
No data available.

Specific target organ toxicity (STOT) - single exposure
No data available.

Specific target organ toxicity (STOT) - repeated exposure
May cause damage to organs through prolonged or repeated exposure

Aspiration hazard
No data available.

Additional information
Chronic Effects: Repeated or prolonged exposure to phenol by skin contact and inhalation of the aerosol may cause severe poisoning with symptoms such as vomiting, difficulty swallowing, diarrhoea, loss of appetite, headache, fainting, dizziness, mental disturbances and dark colouration of the urine. Skin discolouration and eruptions may also be produced. This condition is sometimes referred to as 'marasmus'.
Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Effects may be delayed. Repeated skin contact may cause dermatitis with dark pigmentation of the skin. Chronic exposures have been reported to cause death from liver and kidney damage.

SECTION 12: Ecological information

Toxicity
Toxic for aquatic organisms. Toxic effect on fish and plankton. Forms toxic mixtures in water, dilution measures notwithstanding. Change in the flavour characteristics of fish protein. Endangers drinking-water supplies if allowed to enter soil or water.

Other adverse effects
Do not allow to enter waters, waste water, or soil!

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations
Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)
UN Number: 2810
Class: 6.1
Packing Group: II
Proper Shipping Name: TOXIC LIQUID, ORGANIC, N.O.S. (CONTAINS PHENOL 20%)

Environmental Hazards: Toxic for aquatic organisms. Toxic effect on fish and plankton. Forms toxic mixtures in water, dilution measures notwithstanding. Change in the flavour characteristics of fish protein. Endangers drinking-water supplies if allowed to enter soil or water.

Hazchem emergency action code (EAC)
2X

IMDG
UN Number: 2810
Class: 6.1
Packing Group: II
Proper Shipping Name: TOXIC LIQUID, ORGANIC, N.O.S. (CONTAINS PHENOL 20%)

IATA
UN Number: 2810
Class: 6.1
Packing Group: II

Proper Shipping Name: TOXIC LIQUID, ORGANIC, N.O.S. (CONTAINS PHENOL 20%)

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP
Poison Schedule: S6

SECTION 16: Other information

Further information/disclaimer
ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

Preparation information
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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.
Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.
Safe Work Australia, Workplace Exposure Standards for Airbourne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)