

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Lacto-Phenol Cotton Blue  
**Product code:** 6701-04, 6701-16

**Supplier:** Astral Diagnostics Inc.  
1224 Forest Parkway, Suite 200  
800-441-0366 Technical Service, Monday-Friday: 8:00 -5:00 PM

**Synonym:** None.  
**Material uses:** Laboratory Reagent.  
**Validation date:** 12/11/2013  
**In case of emergency:** 800-424-9300 CHEMTREC (USA)  
24 Hours/Day: 7 Days/Week

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

Target: Germ cell mutagen, kidney, central nervous system, liver, pancreas, spleen, skin, eyes

**GHS Classification:** Acute Toxicity, Oral (Cat 4), Skin Irritation (Cat 2), Serious  
Eye Damage (Cat 1), Skin Sensitization (Cat 1), Carcinogenicity (Cat 1), Specific  
Target Organ Toxicity (Cat 1)

**GHS Label Elements:** Pictogram



**Signal Word: Danger!**

### Hazard statement(s):

- H314:** Causes severe skin burns and eye damage.
- H311:** Toxic in contact with skin.
- H341:** Suspected of causing genetic defects.
- H302:** Harmful if swallowed.
- H332:** Harmful if inhaled.
- H373:** May cause damage to organs through prolonged or repeated exposure.

### Potential Health Effects:

Inhalation: Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membrane and upper respiratory tract. Causes respiratory tract irritation.

Skin: Toxic if absorbed through skin. Causes skin burns. Causes skin irritation.

Eyes: Causes eye burns and irritation.

Ingestion: Toxic if swallowed.

**Precautionary statement(s):**

- P201:** Obtain special instructions before use.
- P280:** Wear protective gloves, protective clothes, eye protection, face protection.
- P271:** Use only outdoors or in a well-ventilated area.
- P260:** Do not breathe dust, fume, gas, mist, vapors, and spray.
- P264:** Wash thoroughly after handling.

**NFPA Rating**

Health hazard: 3  
Fire: 0  
Reactivity Hazard: 0

**HMIS Classification**

Health hazard: 3  
Flammability: 0  
Physical hazards: 0

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Name	CAS number	% by weight
Aniline Blue	28631-66-5	<0.025
Glycerin	56-81-5	40 v/v
Phenol	108-95-2	20 v/v
Lactic Acid	50-21-5	20 v/v
Water	7732-18-5	Balance

**4. FIRST AID MEASURES**

- Eye contact:** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact:** In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion:** Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention immediately.

**5. FIRE-FIGHTING MEASURES**

**Flammability of the product:** Non-Flammable

**Extinguishing media:** Foam, dry powder, CO2, water spray, and sand.

**Not suitable:** Do not use water jet.

**Special exposure hazards:** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Hazardous thermal decomposition products:** Carbon oxides

**Special protective**

**Equipment for fire-fighters:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Special remarks on explosion hazards:** May emit toxic fumes under fire conditions.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Environmental precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Spill:** Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

## 7. HANDLING AND STORAGE

**Handling:** Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Use empty containers to retain product, residue can be hazardous. Do not reuse container.

**Storage:** Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.  
Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Consult local authorities for acceptable exposure limits.**

**Engineering measures:** Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor, or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Component	Source	Type	Value	Note
Phenol Solution	US (OSHA)	TWA	5 ppm	29 CFR 1910.1000 Table Z-1 Limits for Air Contaminants
Phenol Solution	US (ACGIH)	TLV	5 ppm	Upper respiratory tract irritation. Confirmed animal carcinogen with unknown relevance to humans

**Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## Personal protection

### Respiratory:

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

### Hands:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: neoprene

### Eyes:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: goggles or face shield

### Skin:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

## Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid	<b>Color:</b>	Colorless
<b>Flash Point:</b>	Not available	<b>Odor:</b>	Characteristic, sweet
<b>pH:</b>	Not available	<b>Boiling/condensation point:</b>	Not available
<b>Melting/freezing point:</b>	Not available	<b>Relative density:</b>	1.06
<b>Vapor pressure:</b>	Not available	<b>Vapor density:</b>	0.36 (water) compared with (n-Butyl- Acetate=1)
<b>Odor threshold:</b>	Not available	<b>Evaporation rate:</b>	Not available
<b>VOC:</b>	Not available		
<b>Solubility:</b>	Not available		

## 10. STABILITY AND REACTIVITY

<b>Chemical stability:</b>	The product is stable under recommended storage conditions
<b>Possibility of hazardous reactions:</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Hazardous polymerization:</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid:</b>	Direct sunlight, extremely high or low temperatures.
<b>Materials to avoid:</b>	Strong acids and strong bases
<b>Hazardous decomposition Products:</b>	Fumes, Carbon monoxide, Carbon dioxide, thermal decomposition generates corrosive vapors
<b>Conditions of reactivity:</b>	Not established

## 11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure: Skin, eyes, and respiratory tract.

**Ingestion:** Harmful if swallowed. Toxic, will burn respiratory tract, cause nausea and vomiting. Lower doses may decrease body temperature, pain in digestive tract, shallow respiration, weak pulse, unconsciousness and death.

**Skin:** Toxic in contact with skin. Causes skin burns, blisters including allergic skin reaction.

**Inhalation:** Harmful if inhaled. Vapor could be toxic, cause severe irritation and sensitization. Symptoms include a burning sensation, coughing, shortness of breath, nausea, headache or dizziness. Severe over-exposure may produce lung damage, choking or death.

**Eye Contact:** Harmful if exposed. Vapors cause eye burning, blurred vision or blindness.

**Carcinogenicity:** IARC, not classifiable as to humans (Phenol). NTP, No component of this product at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen. OSHA, No component of this product at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen

**Mutagenicity:** Suspected of causing genetic defects. Germ cell mutagen.

**Teratogenicity:** No known significant effects or critical hazards except possibly in laboratory animals.

**Reproductive:** No known significant effects or critical hazards except possibly in laboratory animals.

**Acute Toxicity:** Oral LD50 N/A, Inhalation LC50 N/A, Dermal LD50 N/A

## 12. ECOLOGICAL INFORMATION

**Environmental effects:** Harmful to aquatic life with long lasting effects.

### Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## 13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. TRANSPORT INFORMATION

### DOT (US)

UN number: 2821, Phenol solution, 6.1, II

### IMDG

UN number: 2821, Phenol solution, 6.1, II

### IATA

UN number: 2821, Phenol solution, 6.1, II

## 15. REGULATORY INFORMATION

**U.S. Federal regulations:** United States inventory (TSCA 8b): NA

**TSCA 8(d) H and S data reporting:**

TSCA (Toxic Substance Control Act):

**SARA 302/304/311/312 extremely hazardous substances:** Phenol

**SARA 302/304 emergency planning and notification:** Phenol.

**SARA 302/304/311/312 hazardous chemicals:**

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:**

Phenol: acute health hazard and chronic health hazard

**Clean Water Act (CWA) 307:** NA

**Clean Water Act (CWA) 311:** NA

**Clean Air Act (CAA) 112 accidental release prevention:** No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances:** No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.

**CWA:** Listed

**OSHA:** CERCLA/SARA 302: Listed SARA Title III, Section 302.

**RTK:** Phenol, CAS 108-95-2, MA, MN, NJ, PA

**California Prop. 65**

This product does not contain a chemical known to the State of California to cause birth defects or other reproductive harm.

**WHMIS (Canada):**

Class D-2A: Very toxic material  
Class D-2B: Toxic material

**International regulations**

**International lists:**

**Australia inventory (AICS):** Not determined.

**China inventory (IECSC):** Not determined.

**Japan inventory:** Not determined.

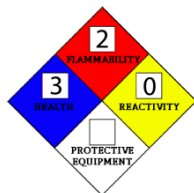
**Korea inventory:** Not determined.

**New Zealand Inventory of Chemicals (NZIoC):** Not determined.

**Philippines inventory (PICCS):** Not determined.

**16. OTHER INFORMATION**

**National Fire Protection Association (U.S.A.)**



**Notice to reader**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astral Diagnostics Inc. shall not be liable for any damage resulting from handling of contact with this product.