MSDS Material Safety Data

Jorgensen Laboratories, Inc.
1450 North Van Buren Avenue
Loveland, CO 80538

Lactophenol Cotton Blue
Product Code: J326B
Effective Date: July 01, 2004

24 Hour Emergency Telephone:
CMB: (800)535-5053

All non-emergency questions may be directed to customer service @ 1-970-669-2500 or fax 1-970-663-5042

HAZARDOUS INFORMATION

Hazardous Ingredient: Glycerin, 34.8%
Synonyms: 1,2,3-propanetriol, glycerol, glycol alcohol, glycerol (anhydrous).
CAS #: 56-81-5
Molecular Weight: 92.09 Chemical Formula: $C_3H_5(OH)_3$

Hazardous Ingredient: Lactic Acid, 21.7%
Synonyms: 1-hydroxyethanecarboxylic acid, 2-hydroxypropanoic acid, ethylidenelactic acid.
CAS #: 50-21-5
Molecular Weight: 32.04 Chemical Formula: CH_3OH

Hazardous Ingredient: Phenol, 21.7%
Synonyms: carbolic acid, phenic acid, phenylic acid, hydroxybenzene, phenol (fused), monohydroxybenzene (phenol solid).
CAS #: 108-95-2
Molecular Weight: 94.11 Chemical Formula: C_6H_5OH

Hazardous Ingredient: Methyl Blue, 0.0543%
Synonyms: cotton blue
CAS #: 29883-56-4
Molecular Weight: 799.8 Chemical Formula: $C_{37}H_{27}N_3O_9S_3Na_2$

HAZARDS IDENTIFICATION

Emergency Overview

POISON! DANGER! VAPOR HARMFUL! MAY BE FATAL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES BURNS OR IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS. May stain skin and clothing.

SAFETY RATINGS: Health: 3, Severe (Poison) Reactivity: 0, None
Flammability: 1, Slight Contact: 2, Moderate

Protective Equipment: Goggles, Lab Coat or Apron, Gloves, Local or General Exhaust Ventilation.

Storage Code: Blue: Health Hazard.

Potential Health Effects

The major hazard of Phenol is its ability to penetrate the skin rapidly, particulary when liquid, causing severe injury which can be fatal. Phenol also has a strong corrosive effect on body tissue causing severe chemical burns. Due to its local anesthetizing properties, skin burns may be painless.

INHALATION:
Breathing vapor may cause irritation to the mucous membranes. Symptoms may include sore throat, coughing, and shortness of breath. Other symptoms listed under ingestion may also occur.

INGESTION:
Toxic! Symptoms may include burning pain in mouth and throat, abdominal pain, nausea, vomiting, headache, dizziness, muscular weakness, central nervous system effects, increase in heart rate, irregular breathing, coma, and possibly death. Acute exposure is also associated with kidney and liver damage, cyanosis and vascular collapse. Ingestion of 1 gram of phenol has been lethal to humans.

SKIN CONTACT:
May cause irritation or burns. Rapidly absorbed through the skin with systemic poisoning effects to follow, symptoms may parallel inhalation exposure.

EYE CONTACT:
Eye burns with redness, pain, blurred vision may occur. May cause severe damage and blindness.
CHRONIC EXPOSURE:
Repeated exposure may cause symptoms described for acute poisoning as well as eye & skin discoloration.
AGGRAVATION of PRE-EXISTING CONDITIONS:
Persons with pre-existing skin, eye or central nervous system disorders, or impaired liver, kidney, or pulmonary function may be more susceptible to the effects of the substance.

FIRST AID MEASURES

INHALATION:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
INGESTION:
Immediately administer castor oil or other vegetable oil. Never give anything by mouth to an unconscious person. Be ready to induce vomiting at the advice of physician or poison control center. Castor oil or vegetable oil dosage should be between 15 & 30 cc. Get medical attention immediately.
SKIN CONTACT:
Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical advise if irritation develops.
EYE CONTACT:
Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

FIRE FIGHTING MEASURES

FIRE:
No information available.
EXPLOSION:
No information available.
FIRE EXTINGUISHING MEDIA:
Use alcohol foam, dry chemical or carbon dioxide.
SPECIAL INFORMATION:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.
NFPA RATINGS: Health: 2 Flammability: 1 Reactivity: 0

ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment as specified in the Personal Protection Section. Absorb with a paper towel for proper disposal. Wash area with soap and water.

HANDLING AND STORAGE

Store in a cool, dry, ventilated area away from flame, sources of ignition and heat. Keep containers tightly closed and upright. Protect from physical damage. Keep out of direct sunlight and separate from incompatible materials. Storage and use areas should be non-smoking.

PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS, GLYCERIN:
OSHA; Permissible Exposure Limit (PEL): Total Dust: 15 mg/m$_3$ (TWA).
Respirable Fraction: 5 mg/m$_3$ (TWA).
ACGIH; Threshold Limit Value (TLV): 10 mg/m$_3$ (TWA).
AIRBORNE EXPOSURE LIMITS, LACTIC ACID:
None established.
AIRBORNE EXPOSURE LIMITS, PHENOL:
OSHA; Permissible Exposure Limit (PEL): 5 ppm (TWA) skin.
ACGIH; Threshold Limit Value (TLV): 5 ppm (TWA) skin.
VENTILATION SYSTEM:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
PERSONAL RESPIRATORS (NIOSH) APPROVED:
If the exposure limit is exceeded, a full face piece respirator, air lined hood or full-face piece self-contained breathing apparatus.
SKIN PROTECTION:
Wear protective clothing, gloves, lab coat or apron, as appropriate, to prevent skin contact.
EYE PROTECTION:
Use chemical safety goggles. Maintain eye wash fountain in work area.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Blue Liquid.
ODOR:	Characteristic odor.
SOLUBILITY:	No information available.
SPECIFIC GRAVITY:	No information available.
pH:	No information available.
% VOLATILES by VOLUME:	No information available.
BOILING POINT:	No information available.
MELTING POINT:	No information available.
VAPOR DENSITY (Air =1):	No information available.
VAPOR PRESSURE (mm Hg):	No information available.
EVAPORATION RATE (BuAc=1):	No information available.

STABILITY AND REACTIVITY

STABILITY:
Stable under ordinary conditions of use and storage.
HAZARDOUS DECOMPOSITION PRODUCTS:
No information available.
HAZARDOUS POLYMERIZATION:
Will not occur.
INCOMPATIBILITIES:
Strong oxidizing agents and bases. Avoid heat, flame and other sources of ignition.
CONDITIONS to AVOID:
Heat, flames, ignition sources and incompatibles.

TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA:
Glycerin: Oral rat LD50: 12,600 mg/kg. Investigated as a mutagen, reproductive effector.
Lactic Acid: Oral rat LD50: 3543 mg/kg; Irritation data: Skin rabbit: 500 mg/24H, severe; Eye rabbit: 750☞g/kg, severe. Investigated as a mutagen.
Phenol: Oral rat LD50: 317 mg/kg; Inhalation rat LC50: 316 mg/m^3; Skin rabbit LD50: 630 mg/kg. Irritation data: Standard Draize Test, Skin rabbit: 500 mg/24hr., severe; Eye rabbit: 5 mg/^{30S} rinse, mild. Investigated as a tumorigen, mutagen, reproductive effector.

ECOLOGICAL INFORMATION

When released into the soil, this material may leach into ground water.
ENVIRONMENTAL TOXICITY:
This material is expected to be toxic to aquatic life.

DISPOSAL INFORMATION

Dispose of container and unused contents in accordance with federal, state and local requirements. State and local disposal regulation may differ from federal disposal regulations.

OTHER INFORMATION

TRANSPORT (Land, DOT):
Phenol solutions, 6.1, UN2821, III
PRODUCT USE:
Laboratory Reagent.

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