



# Biology Laboratory Protocol



# Reasons for Lab Protocol

- Safety



- Contamination Control

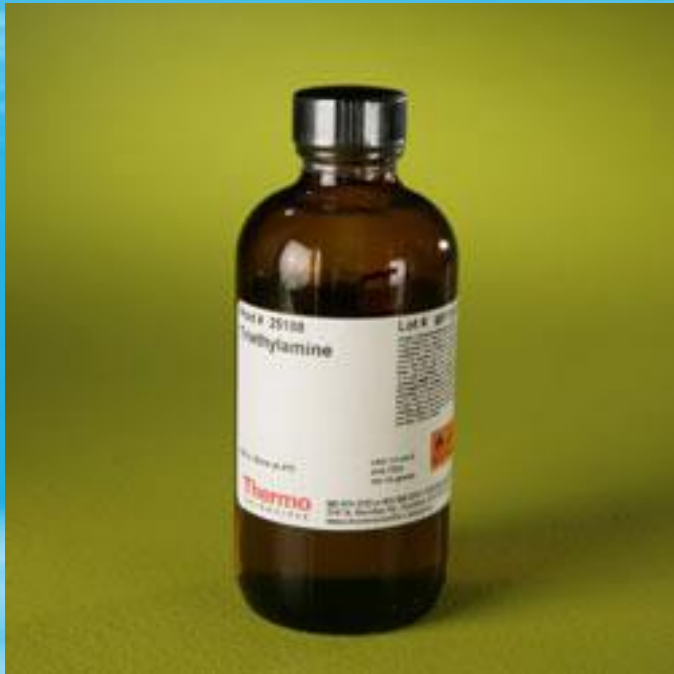


## Equipment Protection



# Safety - Hazardous Materials

- Triethylamine (TEA)



- Dry Ice (CO<sub>2</sub>)



## Signal Word

# Triethylamine (TEA)

Part of the MSDS (Material Safety Data Sheet)

### EMERGENCY OVERVIEW

**Danger!** May cause lung damage. Harmful if swallowed, inhaled, or absorbed through the skin. Causes burns by all exposure routes. Extremely flammable liquid and vapor. Vapor may cause flash fire. Target Organs: Lungs, cardiovascular system, eyes, skin, mucous membranes.

### Potential Health Effects

**Eye:** Causes eye burns. Lachrymator (substance which increases the flow of tears). Low vapor concentrations may cause a temporary visual disturbance known as 'blue haze' or 'halo vision'.

**Skin:** Harmful if absorbed through the skin. Causes skin burns. The severity of injury depends on the concentration of the solution and the duration of exposure.

**Ingestion:** Harmful if swallowed. Causes gastrointestinal tract burns.

**Inhalation:** Harmful if inhaled. Causes chemical burns to the respiratory tract. Effects of inhalation may be delayed. Vapors may cause lung injury. May cause central nervous system effects. Extreme exposures could result in a build-up of fluid in the lungs (pulmonary edema) that might be fatal in severe cases.

# Dry Ice (CO<sub>2</sub>)

Part of the MSDS (Material Safety Data Sheet)

## Health Hazard Data

Route Of Entry - Inhalation: Yes

Route Of Entry - Skin: No

Route Of Entry - Ingestion: No

**Health Hazard Acute and Chronic:** Concentration in excess of 1.5% carbon dioxide may cause death. At higher concentrations, displaces oxygen in air below levels necessary to support life.

**Carcinogenicity - NTP:** No

**Carcinogenicity - IARC:** No

**Carcinogenicity - OSHA:** No

**Explanation Carcinogenicity:** None

**Signs/Symptoms Of Overexposure:** At concentrations >1.5%: Hyperventilation/headaches/dyspnea/perspiration. At 6-10%: Headaches/dyspnea/perspiration/tremors/visual disturbances. >10%: Unconsciousness w/out warning. ***Cryogenic burns.***

**Emergency/First Aid Procedures:** Inhalation: Remove to fresh air. Assisted respirant & supplemental oxygen should be given if not breathing. Frozen tissues should be flooded/soaked w/tepid water. Don't use hot water. Obtain medical attention in all cases.

# Triethylamine (TEA)

- Well Ventilated area
- Work up-wind or use respirator
- Impermeable gloves
- Safety glasses



# Freezing Mosquitoes



# Dry Ice (CO<sub>2</sub>)

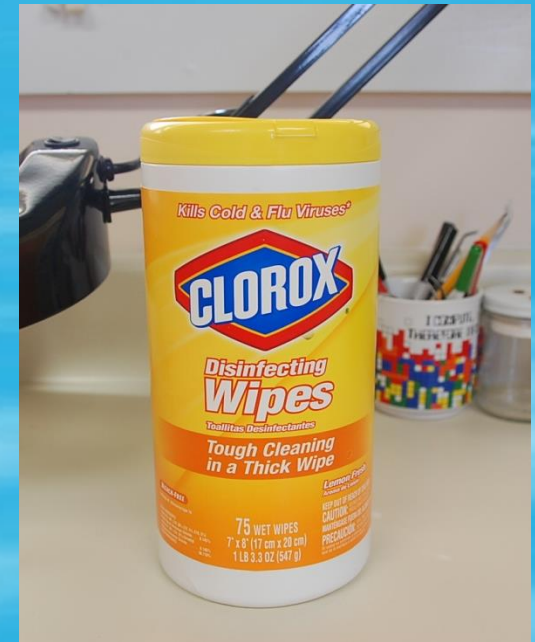
- Well Ventilated area
- Impermeable gloves (welding)
- Safety glasses





# Contamination Control

- Dual-purpose work spaces
- Insect infestations



Clean forceps & probes between pools & between catches



# Equipment Protection

