

# Taking the First Step in Chemical Safety Training

BC Annual Meeting  
June 3, 2010

# Which chemical is dangerous?

**A Hazardous Material is an agent that can harm**

- human**
- animal**
- environment**

**by itself or by interacting with other factors.**

**How do we know?**

# Which chemical is dangerous?

**Treat every chemical as a dangerous material!**



**Flammable**



**Toxic**



**Harmful**

- irritant
- carcinogenic

# Which chemical is dangerous?

**Treat every chemical as a dangerous material!**



**Radioactive**



**Biohazard**



**Corrosive**

# Which chemical is dangerous?

**Treat every chemical as a dangerous material!**



**Danger to  
Environment**



**Oxidizer**



**Explosive**

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**Explosive**

# Common Lab Practice

**This is only a brief overview.  
A proper intensive training is required.**

**We will learn basic practices  
as primers for future training.**

# Where to find information?

<http://toxnet.nlm.nih.gov/>

The screenshot displays the TOXNET website interface. At the top, there is a navigation bar with the TOXNET logo and the URL <http://toxnet.nlm.nih.gov/>. Below this is a banner for the United States National Library of Medicine (NLM) and the TOXNET Toxicology Data Network. The main content area features a search interface with a "Select Database" list on the left, a "Search All Databases" form in the center, and a "Env. Health & Toxicology" section on the right. A red dashed arrow points to the "TOXLINE" option in the "Select Database" list.

**TOXNET** - Databases on toxicology, hazardous chemicals, environmental health, and toxic releases.

**Select Database**

- ChemIDplus
- HSDB
- **TOXLINE**
- CCRIS
- DART
- GENETOX
- IRIS
- ITER
- LactMed
- Multi-Database
- TRI
- Haz-Map
- Household Products
- TOXMAP

**Search All Databases**

Enter term(s) to search all databases.

(e.g. asthma air pollution, ibuprofen fever, vinyl chloride)

**TOXNET Search Options**

- Search all databases: Enter term(s) in box above
- Search a specific database: Click database at left
- Database description: Click on the [?](#)

**Env. Health & Toxicology**



Portal to environmental health and toxicology resources

[VISIT SITE](#)

**Support Pages**

- ▶ [Help](#)
- ▶ [TOXNET FAQ](#)
- ▶ [TOXNET Update Status](#)
- ▶ [Fact Sheet](#)
- ▶ [Database Description](#)
- ▶ [Training Manual & Schedule](#)
- ▶ [News](#)

# Material Safety Data Sheets (MSDS)

<b>MSDS</b>	<b>Material Safety Data Sheet</b>	24 Hour Emergency Telephone: 908-859-2151 CHEMTREC: 1-800-424-9300
		National Response in Canada CANUTEC: 613-996-6666
From: Mallinckrodt Baker, Inc. 222 Red School Lane Phillipsburg, NJ 08865		Outside U.S. and Canada Chemtrec: 703-527-3887
 		<b>NOTE:</b> CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.
All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.		

## Product Identification

### Synonyms:

Phenol red; phenolsulfonphthalein; 4,4; -(3H-2,1-benzoxathiol-3-ylidene) bis-phenol, S,S-dioxide.

**CAS No.:** 143-74-8

**Molecular Weight:** 354.38



**Chemical Formula:** C<sub>19</sub>H<sub>14</sub>O<sub>5</sub>S

### Product Codes:

J.T. Baker: T254

Mallinckrodt: 2636

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## Potential Health Effects

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### **Inhalation:**

May cause irritation to respiratory tract resulting in coughing and sneezing.

### **Ingestion:**

Ingestion effects have not been studied completely but may exhibit symptoms similar to phenolphthalein, such as an itching skin rash. May be a strong laxative.



### **Skin Contact:**

May cause irritation with redness and pain.

### **Eye Contact:**

May cause irritation and pain.

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## First Aid Measures

### Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

### Ingestion:

Induce vomiting immediately as directed by medical personnel.

Never give anything by mouth to an unconscious person. Call a physician.

### Skin Contact:



Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes.

Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

### Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Call a physician if irritation persists.

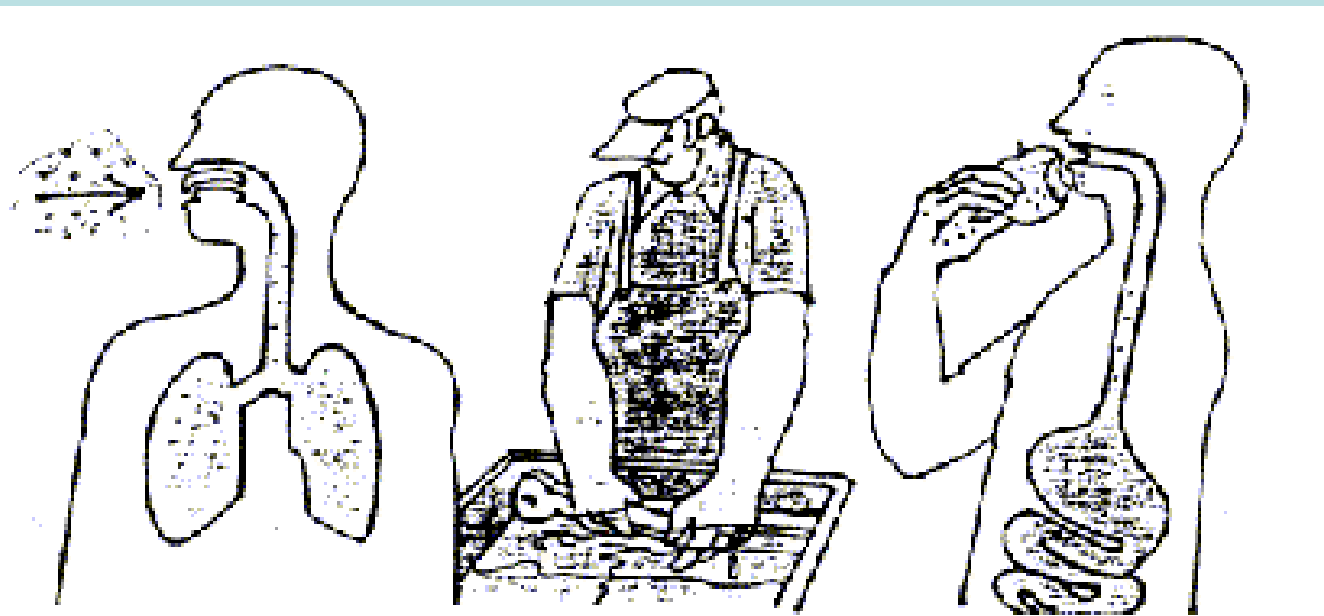
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**Where is the MSDS folder in your lab?**

# Personal Safety

**Avoid these routes of exposure.**



INHALATION

SKIN CONTACT

INGESTION

# Personal Safety

**No eating and drinking in the lab.**



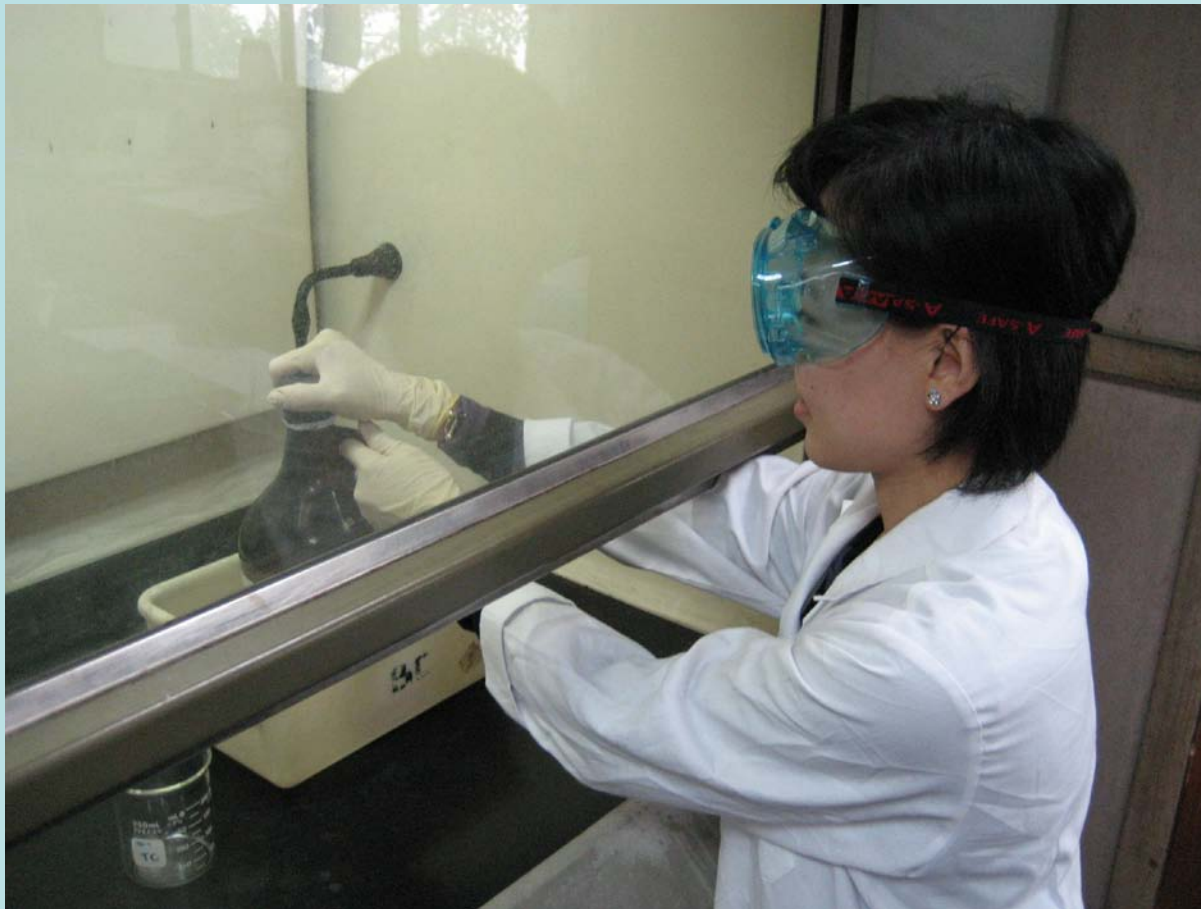
# Personal Safety

**Wear protective gears suitable for each chemical.**



# Personal Safety

**Use a chemical hood for volatile materials.**



# Common Dangerous Chemicals in BC

**Acrylamide:** neurotoxic

**Ethidium Br:** carcinogen

**SDS:** respiratory irritant

**Phenol:** corrosive/carcinogenic

# Future Training to Keep in Mind

**-Fire Safety.**

**-Chemical labeling.**

**-Chemical Storage.**

**-Chemical Handling and Spill.**