

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

Which chemical is dangerous?

Treat every chemical as a dangerous material!



**Danger to
Environment**



Oxidizer



Explosive

Which chemical is dangerous?

Treat every chemical as a dangerous material!



**Danger to
Environment**



Oxidizer



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 shows 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 the navigation bar 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 search box and buttons for Search, Clear, and Help. A red dashed arrow points to the TOXLINE database in the left-hand menu. The right-hand side of the page contains links to environmental health and toxicology resources, as well as support pages.

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

Select Database	Search All Databases	Env. Health & Toxicology
<ul style="list-style-type: none">• ChemIDplus• HSDB• TOXLINE• CCRIS• DART• GENETOX• IRIS• ITER• LactMed• Multi-Database• TRI• Haz-Map• Household Products• TOXMAP	<p>Enter term(s) to search all databases.</p> <input type="text"/> <p>(e.g. asthma air pollution, ibuprofen fever, vinyl chloride)</p> <p>Search Clear Help</p> <p>TOXNET Search Options</p> <ul style="list-style-type: none">• Search all databases: Enter term(s) in box above• Search a specific database: Click database at left• Database description: Click on the ?	<p>Portal to environmental health and toxicology resources</p> <p>VISIT SITE</p> <p>Support Pages</p> <ul style="list-style-type: none">▶ Help▶ TOXNET FAQ▶ TOXNET Update Status▶ Fact Sheet▶ Database Description▶ Training Manual & Schedule▶ News

Material Safety Data Sheets (MSDS)

MSDS	Material Safety Data Sheet	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 Chemtec: 703-527-3887
 		NOTE: 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: C₁₉H₁₄O₅S

Product Codes:

J.T. Baker: T254

Mallinckrodt: 2636

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Potential Health Effects

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.

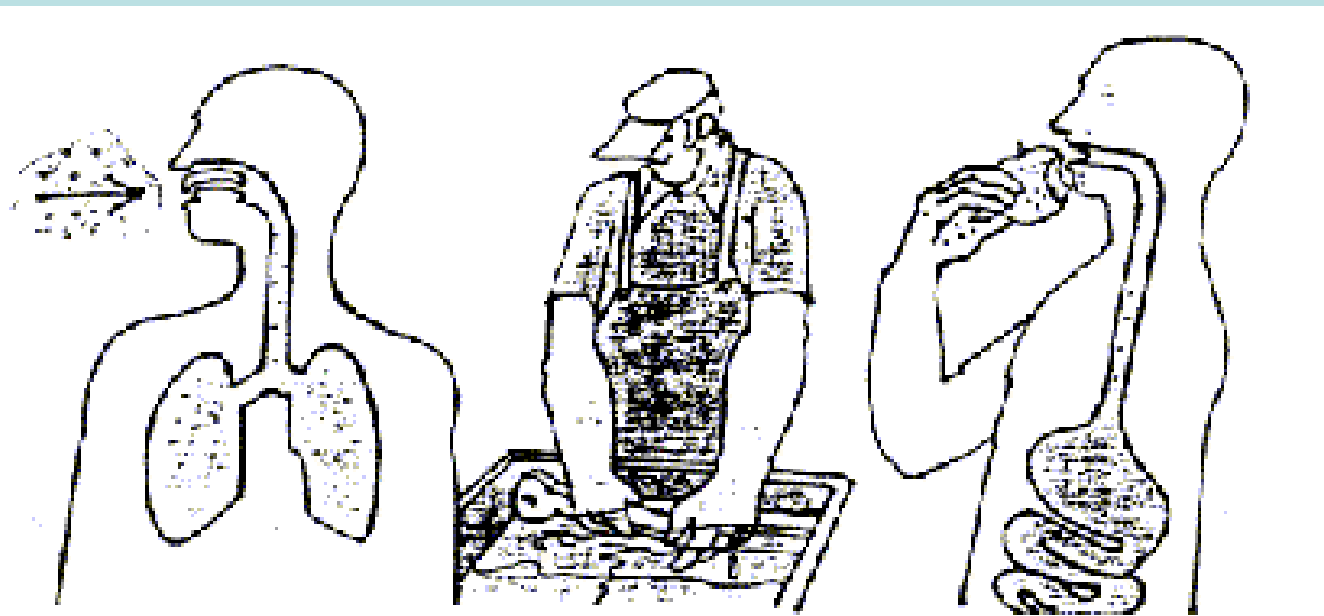
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Where is the MSDS folder in your lab?

Personal Safety

Avoid these routes of exposure.



INHALATION

SKIN CONTACT

INGESTION

Personal Safety

No eating and drinking in the lab.



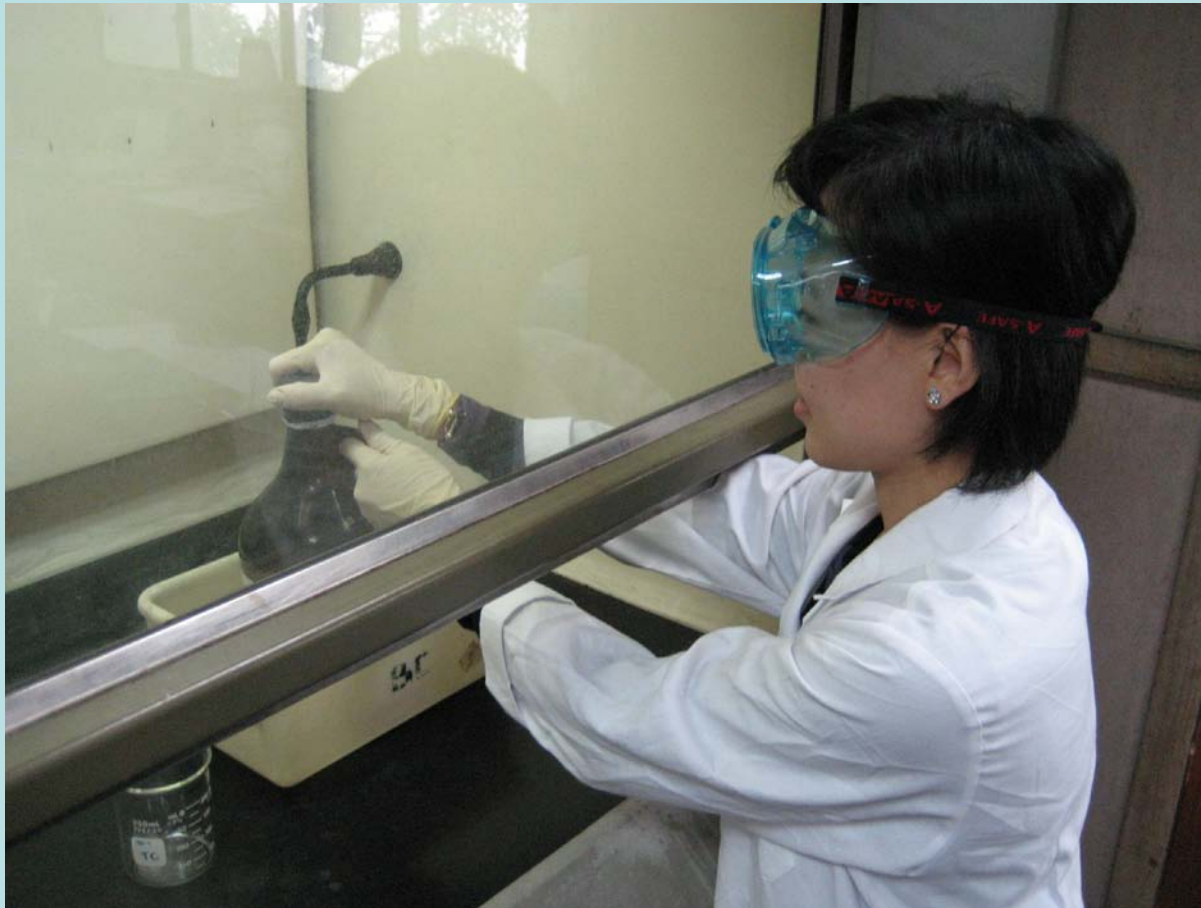
Personal Safety

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.