

**** MATERIAL SAFETY DATA SHEET ****

Thiophenol, 99+%

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Thiophenol, 99+%

Catalog Numbers:

22004-0000, 22004-0050, 22004-0500, 22004-5000

Synonyms:

Benzenethiol; Phenyl mercaptan

Company Identification (Europe): Acros Organics BVBA
 Janssen Pharmaceuticalaan 3a
 2440 Geel, Belgium

Company Identification (USA): Acros Organics
 One Reagent Lane
 Fairlawn, NJ 07410

For information in North America, call: 800-ACROS-01

For information in Europe, call: 0032(0) 14575211

For emergencies in the US, call CHEMTREC: 800-424-9300

For emergencies in Europe, call: 0032(0) 14575299

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#	Haz Symbols	Risk Phrases
108-98-5	Thiophenol	99+%	203-635-3		

Hazard Symbols: T+

Risk Phrases: 10 26 36/37/38 24/25

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Flammable. Very toxic by inhalation. Irritating to eyes, respiratory system and skin. Toxic in contact with skin and if swallowed.

Potential Health Effects

Eye:

Causes severe eye irritation. Causes redness and pain. May cause chemical conjunctivitis and corneal damage.

Skin:

Causes severe skin irritation. Causes redness and pain. Toxic in contact with skin. Contact with the skin defats the skin. Substance is readily absorbed through the skin.

Ingestion:

May cause irritation of the digestive tract. Poison by ingestion. May cause nausea and vomiting. May cause central nervous system effects. May cause burning sensations, coughing, wheezing, laryngitis, shortness of breath and headache.

Inhalation:

Causes respiratory tract irritation. May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Toxic if inhaled. May cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

Chronic:

Not available.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid

immediately.

Skin:

Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Get medical aid immediately. Wash mouth out with water.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Treat symptomatically and supportively.

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Will burn if involved in a fire. Flammable liquid and vapor.

Extinguishing Media:

Use water spray to cool fire-exposed containers. Use water spray, dry chemical, carbon dioxide, or chemical foam.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.

Storage:

Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes:

Wear chemical goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State: Clear liquid
Color: APHA: 10 max
Odor: stench
pH: 5 (saturated. sol.)
Vapor Pressure: 1.6 mm Hg @ 25 deg C
Viscosity: 0981 cSt@30 deg C
Boiling Point: 167-169 deg C@760 mmHg
Freezing/Melting Point: -15 deg C
Autoignition Temperature: 450 deg C (842.00 deg F)
Flash Point: 50 deg C (122.00 deg F)
Explosion Limits, lower: Not available.
Explosion Limits, upper: Not available.
Decomposition Temperature: > 200 deg C
Solubility in water: insoluble
Specific Gravity/Density: 1.078g/cm3
Molecular Formula: C6H6S
Molecular Weight: 110.17

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:
Stable.
Conditions to Avoid:
Incompatible materials, ignition sources, exposure to air.
Incompatibilities with Other Materials:
Strong oxidizing agents, strong bases, alkalies, acids, calcium hypochlorite.
Hazardous Decomposition Products:
Carbon monoxide, oxides of sulfur, carbon dioxide, hydrogen sulfide.
Hazardous Polymerization: Will not occur.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
CAS# 108-98-5: DC0525000
LD50/LC50:
CAS# 108-98-5: Draize test, rabbit, eye: 108 mg Severe; Inhalation, mouse: LC50 = 28 ppm/4H; Inhalation, rat: LC50 = 33 ppm/4H; Oral, mouse: LD50 = 267 mg/kg; Oral, mouse: LD50 = 266 mg/kg; Oral, rat: LD50 = 46200 ug/kg; Oral, rat: LD50 = 223 mg/kg; Skin, rabbit: LD50 = 134 mg/kg; Skin, rat: LD50 = 300 mg/kg.
Carcinogenicity:
Thiophenol -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
See actual entry in RTECS for complete information.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Other
Avoid entering into waters or underground water. Do not empty into drains.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations.

**** SECTION 14 - TRANSPORT INFORMATION ****

IATA
Shipping Name: PHENYL MERCAPTAN
Hazard Class: 6.1
UN Number: 2337
Packing Group:
IMO

Shipping Name: PHENYL MERCAPTAN
Hazard Class: 6.1
UN Number: 2337
Packing Group: I

RID/ADR

Shipping Name: PHENYL MERCAPTAN
Hazard Class: 6.1
UN Number: 2337
Packing group: I

USA RQ: CAS# 108-98-5: 100 lb final RQ; 45.4 kg final RQ

**** SECTION 15 - REGULATORY INFORMATION ****

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T+
Risk Phrases:

R 10 Flammable.
R 24/25 Toxic in contact with skin and if swallowed.
R 26 Very toxic by inhalation.
R 36/37/38 Irritating to eyes, respiratory system
and skin.

Safety Phrases:

S 16 Keep away from sources of ignition - No
smoking.
S 26 In case of contact with eyes, rinse immediately
with plenty of water and seek medical advice.
S 28A After contact with skin, wash immediately with
plenty of water.
S 36/37/39 Wear suitable protective clothing, gloves
and eye/face protection.
S 45 In case of accident or if you feel unwell, seek
medical advice immediately (show the label where
possible).

WGK (Water Danger/Protection)

CAS# 108-98-5: 3

United Kingdom Occupational Exposure Limits

CAS# 108-98-5: OES-United Kingdom, TWA 0.5 ppm TWA; 2.3 mg/m3 TWA

United Kingdom Maximum Exposure Limits

Canada

CAS# 108-98-5 is listed on Canada's DSL List.
CAS# 108-98-5 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 108-98-5: OEL-AUSTRALIA:TWA 0.5 ppm (2 mg/m3)
OEL-BELGIUM:TWA 0.5 ppm (2.3 mg/m3)
OEL-DENMARK:TWA 0.5 ppm (2 mg/m3)
OEL-FINLAND:STEL 0.5 ppm (2.6 mg/m3)
OEL-FRANCE:TWA 0.5 ppm (2 mg/m3)
OEL-THE NETHERLANDS:TWA 0.5 ppm (2 mg/m3)
OEL-SWITZERLAND:TWA 0.5 ppm (2 mg/m3)
OEL-UNITED KINGDOM:TWA 0.5 mg/m3;STEL 2 mg/m3
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

US FEDERAL

TSCA

CAS# 108-98-5 is listed on the TSCA inventory.

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 7/16/1996 Revision #1 Date: 8/01/2000

The information above is believed to be accurate and represents the best
information currently available to us. However, we make no warranty of
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