

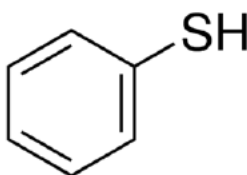
CAS No: 108-98-5 MSDS

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
 :
 EC no : 203-635-3
 CAS No : 108-98-5
 Product code : 06283
 Chemical structure :



Synonyms : Phenyl mercaptan / Benzenethiol

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Labogens Fine Chem Industries
 1st Floor , Above Bank of India, Guru Vihar , Rahon Road,
 Ludhiana Pb. (141007)
 +91 9316777775, +91 7707855700
sales@labogens.com - www.Labogens.com

1.4. Emergency telephone number

Emergency number : +91 7707855700 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, H226
 Category 3
 Acute toxicity (oral), H300
 Category 1
 Acute toxicity (dermal), H310
 Category 1
 Acute toxicity (inhal.), H330
 Category 2
 Serious eye damage/eye irritation, Category 1 H318

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Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335
Specific target organ toxicity — Single exposure, Category 2	H371
Specific target organ toxicity — Repeated exposure, Category 2	H373
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410

Full text of classification categories and H statements : see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

T+; R26
T; R24/25
C; R34
R10

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS05

GHS06

GHS08

GHS09

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H226 - Flammable liquid and vapour
H300+H310+H330 - Fatal if swallowed, in contact with skin or if inhaled
H318 - Causes serious eye damage
H335 - May cause respiratory irritation
H371 - May cause damage to organs
H373 - May cause damage to organs through prolonged or repeated exposure
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :

P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P264 - Wash ... thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P284 - [In case of inadequate ventilation] wear respiratory protection
P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

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2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : THIOPHENOL FOR SYNTHESIS
CAS No : 108-98-5
EC no : 203-635-3

Full text of R- and H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician. Wash with plenty of soap and water. Specific measures (see ... on this label). Wash contaminated clothing before reuse.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Immediately call a POISON CENTER or doctor/physician. Specific treatment (see ... on this label). Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : May cause damage to organs. May cause damage to organs through prolonged or repeated exposure.

Symptoms/injuries after inhalation : Fatal if inhaled. May cause respiratory irritation.

Symptoms/injuries after skin contact : Fatal in contact with skin.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Fatal if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Stop release.

6.2. Environmental precautions

Very toxic to aquatic life.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : No naked lights. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Do not breathe dust/fume/gas/mist/vapours/spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash ... thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment. Comply with applicable regulations.

Storage conditions : Keep container tightly closed. Store in original container. Store in a dry place. Store in a well-ventilated place.

Incompatible materials : Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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8.2. Exposure controls

Hand protection	: protective gloves
Eye protection	: Chemical goggles or face shield
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Molecular mass	: 110.18 g/mol
Colour	: Clear Yellow.
Odour	: unpleasant.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: -15 °C
Freezing point	: No data available
Boiling point	: 169 °C
Flash point	: 50 °C
Auto-ignition temperature	: 450 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour
Vapour pressure	: 1.9 hPa at 20 °C
Relative vapour density at 20 °C	: 3.8
Relative density	: No data available
Density	: 1.073 g/cm ³
Solubility	: Water: Insoluble in water
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases. Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Fatal if swallowed. Dermal: Fatal in contact with skin. Inhalation: Fatal if inhaled.

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause respiratory irritation. May cause damage to organs.

Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Toxic if swallowed. Toxic in contact with skin.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

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12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to ...
Additional information : Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials : Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 2337
UN-No. (IMDG) : 2337
UN-No.(IATA) : 2337
UN-No.(ADN) : 2337
UN-No. (RID) : 2337

14.2. UN proper shipping name

Proper Shipping Name (ADR) : PHENYL MERCAPTAN
Proper Shipping Name (IMDG) : PHENYL MERCAPTAN
Proper Shipping Name (IATA) : PHENYL MERCAPTAN
Proper Shipping Name (ADN) : PHENYL MERCAPTAN
Proper Shipping Name (RID) : PHENYL MERCAPTAN
Transport document description (ADR) : UN 2337 PHENYL MERCAPTAN, 6.1 (3), I, (C/D), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG) : UN 2337 PHENYL MERCAPTAN, 6.1 (3), I, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS (50°C c.c.)
Transport document description (IATA) : UN 2337 PHENYL MERCAPTAN, 6.1, I, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN) : UN 2337 PHENYL MERCAPTAN, 6.1 (3), I, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID) : UN 2337 PHENYL MERCAPTAN, 6.1 (3), I, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 6.1 (3)

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Danger labels (ADR) : 6.1, 3



IMDG

Transport hazard class(es) (IMDG) : 6.1 (3)

Danger labels (IMDG) : 6.1, 3



IATA

Transport hazard class(es) (IATA) : 6.1 (3)

Hazard labels (IATA) : 6.1, 3



ADN

Transport hazard class(es) (ADN) : 6.1 (3)

Danger labels (ADN) : 6.1, 3



RID

Transport hazard class(es) (RID) : 6.1 (3)

Danger labels (RID) : 6.1, 3



14.4. Packing group

Packing group (ADR) : I

Packing group (IMDG) : I

Packing group (IATA) : I

Packing group (ADN) : I

Packing group (RID) : I

14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes


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Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : TF1
Special provision (ADR) : 354
Limited quantities (ADR) : 0
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P602
Mixed packing provisions (ADR) : MP8, MP17
Portable tank and bulk container instructions (ADR) : T20
Portable tank and bulk container special provisions (ADR) : TP2, TP35
Tank code (ADR) : L10CH
Tank special provisions (ADR) : TU14, TU15, TE19, TE21
Vehicle for tank carriage : FL
Transport category (ADR) : 1
Special provisions for carriage - Loading, unloading and handling (ADR) : CV1, CV13, CV28
Special provisions for carriage - Operation (ADR) : S2, S9, S14
Hazard identification number (Kemler No.) : 663
Orange plates : 

Tunnel restriction code (ADR) : C/D
EAC code : 3WE
APP code : A(fl)

- Transport by sea

Special provision (IMDG) : 354
Limited quantities (IMDG) : 0
Excepted quantities (IMDG) : E0
Packing instructions (IMDG) : P602
Tank instructions (IMDG) : T20
Tank special provisions (IMDG) : TP2, TP13, TP35
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-D
Stowage category (IMDG) : D
Stowage and handling (IMDG) : SW2
Segregation (IMDG) : SG35
Flash point (IMDG) : 50°C c.c.
MFAG-No : 131

- Air transport

PCA Limited quantities (IATA) : Forbidden
PCA limited quantity max net quantity (IATA) : Forbidden
PCA packing instructions (IATA) : Forbidden
PCA max net quantity (IATA) : Forbidden
CAO packing instructions (IATA) : Forbidden
CAO max net quantity (IATA) : Forbidden

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ERG code (IATA) : 6F

- Inland waterway transport

Classification code (ADN) : TF1
Special provisions (ADN) : 354, 802
Limited quantities (ADN) : 0
Excepted quantities (ADN) : E0
Equipment required (ADN) : PP, EP, EX, TOX, A
Ventilation (ADN) : VE01, VE02
Number of blue cones/lights (ADN) : 2

- Rail transport

Classification code (RID) : TF1
Special provision (RID) : 354
Limited quantities (RID) : 0
Excepted quantities (RID) : E0
Packing instructions (RID) : P602
Mixed packing provisions (RID) : MP8, MP17
Portable tank and bulk container instructions (RID) : T20
Portable tank and bulk container special provisions (RID) : TP2, TP35
Tank codes for RID tanks (RID) : L10CH
Special provisions for RID tanks (RID) : TU14, TU15, TU38, TE21, TE22
Transport category (RID) : 1
Special provisions for carriage – Loading and unloading (RID) : CW13, CW28, CW31
Hazard identification number (RID) : 663

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

THIOPHENOL FOR SYNTHESIS is not on the REACH Candidate List

THIOPHENOL FOR SYNTHESIS is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 3, strongly hazardous to water (Classification according to VwVwS, Annex 2; WGK No 144)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

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Denmark

Class for fire hazard	: Class II-1
Store unit	: 5 liter
Classification remarks	: R10 <H226;H300+H310+H330;H318;H335;H371;H373;H410>; Emergency management guidelines for the storage of flammable liquids must be followed
Recommendations Danish Regulation	: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 1 (Oral)	Acute toxicity (oral), Category 1
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 2	Specific target organ toxicity — Single exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour
H300	Fatal if swallowed
H310	Fatal in contact with skin
H318	Causes serious eye damage
H330	Fatal if inhaled
H335	May cause respiratory irritation
H371	May cause damage to organs
H373	May cause damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects
R10	Flammable
R24/25	Toxic in contact with skin and if swallowed
R26	Very toxic by inhalation
R34	Causes burns
C	Corrosive
T	Toxic
T+	Very toxic

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product