

# TURPENTINE

1063

March 2002

CAS No: 8006-64-2  
 RTECS No: YO8400000  
 UN No: 1299  
 EC No: 650-002-00-6

Turpentine, oil  
 Spirits of turpentine  
 Oil of turpentine  
 Steam distilled turpentine  
 Gum spirits  
 Wood turpentine  
 $C_{10}H_{16}$  (approx)  
 Molecular mass: 136 (approx)

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Flammable. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking.	Foam, dry powder, carbon dioxide.
<b>EXPLOSION</b>	Above 30°C explosive vapour/air mixtures may be formed.	Above 30°C use a closed system, ventilation, and explosion-proof electrical equipment. Prevent build-up of electrostatic charges (e.g., by grounding). Use non-sparking handtools.	In case of fire: keep drums, etc., cool by spraying with water.

EXPOSURE		PREVENT GENERATION OF MISTS! STRICT HYGIENE!	
<b>Inhalation</b>	Confusion. Cough. Headache. Sore throat. Shortness of breath.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.
<b>Skin</b>	Redness. Pain.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
<b>Eyes</b>	Blurred vision. Pain. Redness.	Safety spectacles, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Burning sensation. Abdominal pain. Nausea. Vomiting. Confusion. Convulsions. Diarrhoea. Unconsciousness.	Do not eat, drink, or smoke during work.	Do NOT induce vomiting. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Cover the spilled material with dry earth or sand or other non-combustible material. Ventilation. Remove all ignition sources. Do NOT wash away into sewer. Sweep spilled substance into containers and then remove to safe place. (Extra personal protection: self-contained breathing apparatus.) Do NOT let this chemical enter the environment.	Xn Symbol N Symbol R: 10-20/21/22-36/38-43-51/53-65 S: (2-)36/37-46-61-62 UN Hazard Class: 3 UN Pack Group: III Marine pollutant.

EMERGENCY RESPONSE	STORAGE
Transport Emergency Card: TEC (R)-30S1299 NFPA Code: H1; F3; R0	Fireproof. Separated from strong oxidants, incompatible materials. See Chemical Dangers. Cool. Keep in a well-ventilated room.

### IMPORTANT DATA

**Physical State; Appearance**

COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

**Chemical dangers**

On combustion, forms toxic fumes including carbon monoxide. The substance decomposes slowly under the influence of air or light producing oxidation products that are more toxic or irritating than turpentine itself. Reacts violently with oxidants, halogens, combustible substances, mineral acids. Attacks plastic and rubber.

**Occupational exposure limits**

TLV: 100 ppm (as TWA); SEN Intended change; (ACGIH 2001).

**Routes of exposure**

The substance can be absorbed into the body by inhalation of its vapour, through the skin and by ingestion.

**Inhalation risk**

A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C.

**Effects of short-term exposure**

The vapour is irritating to the eyes, the skin and the respiratory tract. If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis. The substance may cause effects on the central nervous system, bladder and kidneys, resulting in irritability, convulsions and kidney impairment. Exposure at high levels may result in tachycardia, unconsciousness, respiratory failure, death.

**Effects of long-term or repeated exposure**

Repeated or prolonged contact may cause skin sensitization. The liquid defats the skin.

### PHYSICAL PROPERTIES

Boiling point: 149 to 180°C

Melting point: -50 to -60°C

Relative density (water = 1): 0.9

Solubility in water: none

Vapour pressure, kPa at 20°C: 0.25 to 0.67

Relative vapour density (air = 1): 4.6 to 4.8

Relative density of the vapour/air-mixture at 20°C (air = 1): 1.01

Flash point: 30 to 46°C c.c.

Auto-ignition temperature: 220 to 255°C

Explosive limits, vol% in air: 0.8-6

### ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms. The substance may cause long-term effects in the aquatic environment.

### NOTES

The odour warning when the exposure limit value is exceeded is insufficient.

Turpentine is obtained by distilling the gum from various species of pine. It is a mixture of isomeric terpene hydrocarbons.

Composition varies with refining methods and the age, location and species of the softwood source.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information