

MATERIAL SAFETY DATA SHEET

HEXANE

PRODUCT CODE NUMBER(S): 5600-1, 5600-2, 5600-3, 5600-4, 5601-2, 5601-7, 5602-2, 5603-7, 5604-2, 5605-1, 5604-4

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: Hexane; Normal hexane; Hexanes

Chemical Family: Aliphatic hydrocarbon

Chemical Formula: C_6H_{14}

Product Use: Laboratory solvent

Manufacturer's Name and Address:

Caledon Laboratories Ltd.

40 Armstrong Avenue

Georgetown, Ontario, L7G 4R9

Telephone No: (905) 877-0101

Fax No: (905) 877-6666

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HAZARDOUS INGREDIENTS OF MATERIALS

Ingredients	%	TLV Units	CAS No.
n-Hexane	>85	50 ppm	110-54-3
Methylpentanes, may include 2-methylpentane	<5	500 ppm	107-83-5
Methylcyclopentane	<10	Not established	96-37-7

PHYSICAL DATA

Physical State: Liquid

Odour and Appearance: Clear, colourless volatile liquid, gasoline-like odour

Odour Threshold (ppm): 64-244 ppm. Poor warning properties, odour threshold exceeds TLV.

Vapour Pressure (mm Hg): 124 mm Hg at 20°C

Vapour Density (Air = 1): 2.97

Evaporation Rate: 0.3 (Ethyl ether = 1)

Boiling Point (°C): 67-69°C

Freezing Point (°C): -95°C

pH: Not applicable

Specific Gravity: 0.66 at 20°C

Coefficient of Water/Oil distribution: Not available

SHIPPING DESCRIPTION

UN: 1208

T.D.G. Class: 3.1

Pkg. Group: II

REACTIVITY DATA

Chemical Stability: Stable

Incompatibility with other substances: Oxygen and strong oxidizing agents can increase risk of fire and explosion.

Reactivity: Avoid heat, sparks and open flame. Confined materials may explode upon heating.

Hazardous Decomposition Products: CO_x

FIRE AND EXPLOSION DATA

Flammability: Flammable. Readily ignited in most ambient conditions. Vapour is heavier than air and may "flash back" to an ignition source.

Extinguishing Media: Dry chemical, foam, or carbon dioxide. Water may be used to cool containers, but is not suitable for fighting fire involving this material.

Flash Point (Method Used): -21°C (TCC)

Autoignition Temperature: 225°C

Upper Flammable Limit (% by volume): 7.5

Lower Flammable Limit (% by volume): 1.1

Hazardous Combustion Products: CO_x

Sensitivity to Impact: Probably not sensitive

Sensitivity to Static discharge: May be ignited by static discharge.

TOXICOLOGICAL PROPERTIES AND HEALTH DATA

Toxicological Data:

LD₅₀: (rat, oral) 28,710 mg/kg; (dermal, rabbit) >2g/kg

LC₅₀: (inh, mouse) 35,000 ppm/1h

Effects of Acute Exposure to Product:

Inhaled: 10 minute exposure at 1,500 ppm can cause irritation of respiratory tract, nausea, and headache; 10 minutes at 5,000 ppm can cause dizziness, drowsiness. Massive exposures can cause central nervous system depression, unconsciousness and death.

In contact with skin: May cause mild irritation. Can be absorbed through skin in harmful amounts.

In contact with eyes: Vapour can cause irritation; liquid can cause pain and irritation.

Ingested: May cause vomiting, headache, depression and swelling of the intestines. May be aspirated into the lungs if swallowed, which may result in pulmonary edema and chemical pneumonitis.

Effects of Chronic Exposure to Product: Causes harm to the nervous system producing numbness or tingling in the extremities, spasms in the legs, tiredness, muscle weakness and more severe nerve damage. Peripheral neuropathy developed within 7 months in mice at 250 ppm. Methyl pentanes have produced kidney damage in male rats only, but no comparable health hazard for kidney.