

# Comet Chemical Company Ltd.

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## Materials Safety Data - HEXANE

Shipping Name	UN - 1208
Transport of Dangerous Goods Class	HEXANES
WHMIS Class	Class 3; Packing Group II
Material Use	B 2; D 2B
	solvent; oil extraction from oilseeds

1. HAZARDOUS INGREDIENTS	CAS NUMBER	%	TWAEV (ppm)	LD <sub>50</sub> ORAL	(mg/kg) SKIN	LC <sub>50</sub> ppm INHALATION
Hexane*	110-54-3	100%	50	28,700	not known	48,000

\*Commercial hexane is a mixture of hexane isomers, including methylcyclopentane.

### 2. PHYSICAL CHARACTERISTICS

Odour & Appearance	clear, colourless, liquid with mild gasoline-like odour
Odour Threshold	60 ppm - <i>above TWAEV!</i>
Vapour Pressure	124mmHg / 16.5kPa (20°C)
Vapour Density (air = 1)	3
Boiling Range	56°C - 70°C
Freezing Point	-95°C
Specific Gravity	0.673
Water Solubility	10 milligrams per litre

### 3. FLAMMABILITY & REACTIVITY

Flash Point	-31°C ( <i>could be up to 22°C, depending on isomers present</i> )
Autoignition Temperature (lowest)	230°C
Flammable Limits	1.2% - 7.4%
Hazardous Combustion Products	carbon monoxide, nitrogen oxides, smoke, part oxidised hydrocarbon fragments
Firefighting Precautions	foam, dry chemical, water fog, water spray only to cool, product floats on water - water jet spreads flames; firefighters must wear SCBA
Sensitivity to Static Discharge	sensitive
Sensitivity to Mechanical Impact	not sensitive
Chemical Stability	stable; will not polymerize
Reactive With	strong oxidising agents
Dangerous Decomposition Products	none apart from "Hazardous Combustion Products"

### 4. TOXICOLOGY

#### EFFECTS OF ACUTE EXPOSURE

Skin Contact	defatting, drying
Skin Absorption	yes; no toxic effects anticipated by this route
Eye Contact	irritating; will not damage
Inhalation	irritating; high vapour concentrations may cause dizziness & intoxication
Ingestion	effects similar to inhalation

## (Hexane, cont'd)

### EFFECTS OF CHRONIC EXPOSURE

General	prolonged exposure may cause skin cracking and dermatitis
Sensitising	no
Carcinogenic	experimental tumorigen by RTECS criteria; no effects documented in humans
Reproductive Effect	experimental mutagen by RTECS criteria; no effects documented in humans
Synergistic With	not known
Estimated LD <sub>50</sub>	28,700mg/kg (oral, rat)
Estimated LC <sub>50</sub>	48,000ppm (inhalation, mouse)

### 5. PROTECTIVE EQUIPMENT

Hands	"Viton" or nitrile gloves
Eyes	safety glasses with side shields or chemical goggles
Respirator	not required if ventilation is adequate (see TWAEV, (1) above), or use organic vapour cartridge
Clothing	"Viton" or nitrile apron, boots, long sleeves, if splashing is anticipated

### 6. ENVIRONMENT

Leak Precaution	dyke to control spillage and prevent environmental contamination
	<b>&lt;&lt; Dangerous Fire Risk: Blanket spill with foam as a precaution against ignition. Use only explosion proof electrical equipment in the spill area. Do not operate (turn on OR off) light switches or other electrical equipment in the area. &gt;&gt;</b>
Handling Spill	ventilate contaminated area; recover free liquid with explosion-proof pumps; absorb residue on an inert sorbent (dry sand, earth), <b>pick up with non-sparking plastic or aluminum shovels</b> and store in closed containers for disposal,
Waste Disposal	<b>do not flush to sewer</b> ; may be incinerated in approved facility

### 7. STORAGE & HANDLING

Store and use in a cool dry environment, away from sources of ignition, heat and oxidising agents. Use with adequate ventilation. Ground the container before handling to prevent static discharge which may cause ignition. Do not cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath and safety shower should be available near the workplace.

### 8. FIRST AID

SKIN:	Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or laundered.
EYES:	Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is any irritation.
INHALATION:	Remove from contaminated area promptly. <b>CAUTION: Rescuer must not endanger himself!</b> If breathing stops, administer artificial respiration and seek medical aid promptly.
INGESTION:	Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, keep victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The risk and danger of this is greater than the risk of poisoning through absorption of this product. The stomach should be emptied under medical supervision, after the installation of an airway to protect the lungs.

Emergency telephone numbers	- weekdays from 8:00 - 5:00	(705) 436-5580
	at all other times	(800) 567-7455 (Philip Environmental)

Prepared for Comet Chemical Co. Ltd., by *Nicholas Morgan, November 2002; Revised August 2005*

*The information herein is given in good faith but no warranty, expressed or implied is made.*

**PLEASE ENSURE THAT THIS MSDS IS GIVEN TO AND EXPLAINED TO THE PERSON USING THIS PRODUCT.**