

# Comet Chemical Company Ltd.

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## Materials Safety Data - n-BUTYL ALCOHOL

Shipping Name	UN - 1120
Transport of Dangerous Goods Class	BUTANOLS
WHMIS Class	Class 3; Packing Group III
Material Use	B 2; D 2B
	solvent in ink, paint, rubber, varnish, lacquer etc.

### 1. HAZARDOUS INGREDIENTS

	CAS NUMBER	%	TWAEV (ppm)	LD <sub>50</sub> ORAL	(mg/kg) SKIN	LC <sub>50</sub> ppm INHALATION
n-Butyl Alcohol	71-36-3	100%	50	790	3400	8000

NOTE: Oral LD<sub>50</sub> varies markedly between species. The lowest is given above.

### 2. PHYSICAL CHARACTERISTICS

Odour & Appearance	clear, colourless, liquid with a heavy choking odour
Odour Threshold	11-15 ppm
Vapour Pressure	4 mmHg = 0.59 kPa (20°C)
Vapour Density (air = 1)	2.6
Boiling Point	118°C
Freezing Point	-89°C
Specific Gravity	0.811
Water Solubility	7.5% (25°C)

### 3. FLAMMABILITY & REACTIVITY

Flash Point	37°C
Autoignition Temperature	343°C
Flammable Limits	1.4% - 11.2%
Hazardous Combustion Products	carbon monoxide, nitrogen oxides, smoke
Firefighting Precautions	foam for large fires, dry chemical or CO <sub>2</sub> for small fires, water fog, water spray to cool, product floats on water; water jet spreads flames; firefighters wear SCBA
Sensitivity to Static Discharge	not sensitive
Sensitivity to Mechanical Impact	not sensitive
Chemical Stability	stable; will not polymerize
Reactive With	strong oxidizing agents, strong mineral acids
Dangerous Decomposition Products	none apart from "Hazardous Combustion Products"

### 4. TOXICOLOGY

#### EFFECTS OF ACUTE EXPOSURE

Skin Contact	defatting, drying, may irritate with itching and local redness
Skin Absorption	yes; toxic effects may occur by this route if large areas of skin are exposed
Eye Contact	severely irritating; may damage eyes
Inhalation	severely irritating causing nasal discharge, chest pain and coughing; headache, dizziness, drowsiness, intoxication (respiratory irritation at 24 ppm, headaches at 50 ppm)
Ingestion	abdominal pain, nausea, vomiting, & diarrhoea; headache, dizziness, drowsiness, may occur

## (Butyl Alcohol, cont'd)

### EFFECTS OF CHRONIC EXPOSURE

General	prolonged exposure may cause dry, red cracked skin and dermatitis <i>repeated exposure to over 50ppm vapour concentrations may cause hearing loss</i>
Sensitising	no
Carcinogenic	no
Reproductive Effect	none known in humans
Synergistic With	existing dermatitis; aggravates existing asthma and/ot existing inflammatory lung disease
Estimated LD <sub>50</sub>	790 mg/kg (oral, rat), 2680 mg/kg (oral, mouse), 3500 mg/kg (oral, rabbit); 3400 mg/kg (skin, rabbit)
Estimated LC <sub>50</sub>	8000 ppm (inhalation, rat)

### 5. PROTECTIVE EQUIPMENT

Hands	butyl rubber, "Viton", "Responder", or "Barridace" gloves
Eyes	chemical safety goggles
Respirator	not required if ventilation is adequate (see TWAEV, (1) above), or use organic vapour cartridge
Clothing	impervious (hands, above) apron , boots, long sleeves, if splashing is anticipated

### 6. ENVIRONMENT

Leak Precaution	dyke to control spillage and prevent environmental contamination; if fire potential exists , blanket with foam as a precaution
Handling Spill	ventilate contaminated area; recover free liquid with explosion-proof pumps; absorb residue on an inert sorbent (dry sand, earth) and store in closed containers for disposal
Waste Disposal	<b>do not flush to sewer</b> ; may be incinerated in approved facility; this product is biodegradeable in a biological wastewater treatment plant at low concentrations

### 7. STORAGE & HANDLING

Store and use in a cool dry environment, away from sources of ignition, heat and oxidizing 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. Avoid breathing vapours. An eye bath and safety shower must 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, September 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.**

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