

Comet Chemical Company Ltd.

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Materials Safety Data - DIBUTYL PHTHALATE

UN - 3082

Shipping Name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (DI-n-Butyl Phthalate)

Transport of Dangerous Goods Class

Class 9; Packing Group II

WHMIS Class

D 2A

Material Use

plasticiser, ink & resin solvent, textile lubricant,
desensitising nitroglycerine

1. HAZARDOUS INGREDIENTS

	CAS NUMBER	%	TWAEV (mg/m ³)	LD ₅₀ ORAL	(mg/kg) SKIN	LC ₅₀ mg/m ³ INHALATION
Phthalic Acid, Dibutyl Ester	84-74-2	100%	5	5300	20,000	1550

2. PHYSICAL CHARACTERISTICS

Odour & Appearance	clear, colourless, virtually odourless, oily liquid
Odour Threshold	odourless
Vapour Pressure	1x10 ⁻⁵ mmHg (25°C); 1.1mmHg (150°C) - very low
Vapour Density (air = 1)	9.6
Boiling Point	340°C
Freezing Point	-35°C
Specific Gravity	1.048
Water Solubility	11.2mg per litre (20°C), soluble in alcohols, ethers, ketones & hydrocarbons
Viscosity	21centipoise (20°C)

3. FLAMMABILITY & REACTIVITY

Flash Point	157°C
Autoignition Temperature (lowest)	402°C
Flammable Limits	not known
Hazardous Combustion Products	carbon monoxide, nitrogen oxides, smoke
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	probably not sensitive
Sensitivity to Mechanical Impact	not sensitive
Chemical Stability	stable; will not polymerize
Reactive With	strong oxidising agents; violent reaction with chlorine, may react violently with strong acids or alkalis
Dangerous Decomposition Products	none apart from "Hazardous Combustion Products"

4. TOXICOLOGY EFFECTS OF ACUTE EXPOSURE

Skin Contact	may irritate
Skin Absorption	slight; no toxic effects anticipated by this route
Eye Contact	may irritate
Inhalation	high aerosol concentrations cause laboured breathing in rodents – however, inhalation of this non-volatile, slightly viscous liquid is highly unlikely
Ingestion	drowsiness, nausea, hallucination, convulsions and eventual coma

(Dibutyl Phthalate, cont'd)

EFFECTS OF CHRONIC EXPOSURE

General	prolonged exposure may cause dermatitis repeated absorption may damage liver & kidneys, may cause normocytic anaemia
Sensitising	no
Carcinogenic	experimental mutagen in male rats; no effects documented in humans
Reproductive Effect	testicular damage, fetotoxic at 1/2 to 1/3 the oral LD ₅₀ ; no effects documented in humans
Synergistic With	not known
Estimated LD ₅₀	5300 mg/kg (oral, mouse), 8000 mg/kg (oral, rat), 10,000 mg/kg (oral guinea pig); 20,000 mg/kg (skin, rabbit)
Estimated LC ₅₀	1550ppm (inhalation, mouse) NOTE Toxicity appears to vary widely among species

5. PROTECTIVE EQUIPMENT

Hands	butyl rubber, nitrile rubber, polyvinyl alcohol, "Viton" gloves
Eyes	chemical safety goggles
Respirator	not required unless vapour is created by heating or mist forms through aeration; then control using mechanical ventilation 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
Handling Spill	recover free liquid with pumps; absorb residue on an inert sorbent (dry sand, earth) and store in closed containers for disposal
Waste Disposal	do not flush to sewer ; may be incinerated in approved facility

7. STORAGE & HANDLING

Store and use in a cool dry environment, away from oxidising agents. **Do not allow product to contact chlorine gas, violent reaction may occur.** Do not cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin and wash work clothes frequently. Absorption of this product has been reported to affect vision. 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. CAUTION: Rescuer must not endanger himself! 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)
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Prepared for Comet Chemical Co. Ltd., by *Nicholas Morgan, October 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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