

SECTION 1

Product Name: DIBASIC ESTER
Supplier's Name: APCO INDUSTRIES CO. LTD.
10 Industrial Street
Toronto, Ontario M4G 1Z1

Information Telephone: 416-421-6161

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WHMIS CLASSIFICATION:
Class D Division 2 Subdivision B: Toxic Material. Skin
or Eye Irritant

TRANSPORTATION DANGEROUS GOODS CLASSIFICATION
Not a regulated product in Canada.

SECTION 2 - HAZARDOUS INGREDIENTS

	CAS NO.	%
Dimethyl Glutarate	1119-40-0	45/65
Dimethyl Adipate	627-93-0	10/30
Dimethyl Succinate	106-65-0	10/30

DIBASIC ESTER
Inhalation LC50: 1 hr. >10.7 mg/l in rats
Skin Absorption LD50: >2,250 mg/kg in rabbits
Oral LD50: 8,191 mg/kg in rats

SECTION 3 - PHYSICAL/CHEMICAL PROPERTIES

Boiling Point: 196 to 225 deg C
Vapour Pressure: 0.2 mm Hg at 20 deg C
Vapour Density: >1 (air=1.0)
Melting Point: ~-20 deg C
% Volatiles: 100 WT % at 20 deg C
Evaporation Rate: <0.1 (Butyl Acetate=1)
Solubility in Water: 5.3 WT % at 20 deg C

MATERIAL SAFETY DATA SHEET

Odour: Sweet
Form: Liquid
Color: Colorless
Specific Gravity: 1.092 at 20 deg C

SECTION 4 - FIRE AND EXPLOSION HAZARD

Flash Point: 100 deg C Method: TCC
Autoignition Temperature: 370 deg C
Explosive Limits in Air, % by Vol.: LEL: 0.9
UEL: 8.0
Fire and Explosion Hazards: Vapour forms explosive mixture with air. Hazardous gases/vapours produced in fire are carbon monoxide.
Extinguishing Media: Water. Chemical Foam. Dry Chemical. CO2.
Special Fire Fighting Instructions: Wear self-contained breathing apparatus. Wear full protective equipment. Flood with water.

SECTION 5 - REACTIVITY DATA

Instability: Stable.
Incompatibility: Incompatible with strong oxidants, acids, alkalies.
Decomposition: Decomposes with heat.
Polymerization: Polymerization will not occur.

SECTION 6 - HEALTH HAZARD DATA

DBE is an eye irritant in animal tests. DBE has also been found to be a moderate skin irritant in rabbits. DBE demonstrated no mutagenic activity when tested in bacterial cell cultures. DBE demonstrated no reproductive toxicity and was not uniquely toxic to the fetus in a developmental study. DBE produced mild nasal lesions in rats.

Anticipated human health effects of overexposure include eye and skin irritation.
Carcinogenicity: None of the components in this chemical is listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.
Exposure Limits for DIBASIC ESTERS:
AEL* (DuPont): 10 mg/m3 (1.5 ppm) for 8 hour TWA
TLV** (ACGIH): None established.

PEL (OSHA): None established.

EV (ONTARIO): None established.

* AEL is DuPont's Acceptable Exposure Limit

** TLV is a register trademark.

Safety Precautions: Avoid breathing vapours or mist. Avoid contact with eyes. Wash thoroughly after handling.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

Generally Applicable Control Measures and Procedures: Use only with adequate ventilation. Do not mix with strong oxidants, acids, alkalis. Do not consume food, drink or tobacco in the areas where they may become contaminated with this material.

Personal Protective Equipment:

Eye/Face: Coverall chemical splash goggles. Use when splash is likely.

Respirator: Air supplied respirator.

Chemical Cartridge Respirator: Half-mask organic vapour cartridge. Full-face organic vapour cartridge if eye protection is needed.

Protective Gloves: Impervious gloves such as Neoprene.

Disposal Information

Aquatic Toxicity: 96 hr, fathead minnows,
LC50: >18ppm <24ppm

Spill, Leak, or Release: NOTE: Review FIRE AND EXPLOSION HAZARDS and SAFETY PRECAUTIONS before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. Remove source of heat, sparks, flame, impact, friction or electricity. Dike spill. Prevent liquid from entering sewers, waterways or low areas. Recover free liquid for reuse or reclamation. Recover undamaged and minimally contaminated material for reuse or reclamation. Soak up with sawdust, sand, oil dry or other absorbent material.

Waste Disposal: Treatment, storage, transportation and disposal must be in accordance with applicable Federal, Provincial, and Local regulations. Recover nonusable free liquid and dispose of in an approved and permitted incinerator. Recover nonusable free liquid and/or contaminated water, and dispose of in an approved and permitted biological treatment system or an approved and permitted deepwell. Remove nonusable solid material and /or contaminated soil, for disposal in an approved and permitted landfill. Do not flush to surface water or sanitary sewer system.

SECTION 8 - EMERGENCY FIRST AID PROCEDURES

Inhalation: If inhaled, immediately remove to fresh air.
Skin Contact: Flush skin with water.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
Ingestion: If swallowed, do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Call a physician.

SECTION 9 - SPECIAL PRECAUTIONS AND ADDITIONAL INFORMATION

Shipping Information
DOT Proper Shipping Name: Not Required (Not regulated)
Hazard Class: Not regulated
DOT/IMO Proper Shipping Name: Not regulated
Hazard Class: Not regulated
Storage Conditions: Store in well ventilated area. Keep container tightly closed.
Additional Information and References: The hydrogen cyanide concentration in DBE is so low as to be toxicologically insignificant when DBE is used as a solvent. However, when reacting DBE with an alcohol and subsequent recovery of methanol, concentration of highly volatile impurities to toxicologically significant levels can occur in the light ends when methanol is topped in order to purify the methanol for reuse. Processors should be aware of this potential hazard.

The information provided in this Material Safety Data Sheet has been obtained from sources believed to be reliable. Apco Industries Co. Ltd. provides no warranties express or implied and assumes no responsibility for the accuracy or the completeness of the data contained herein.
