


 CC: D. PUTNAM
 DU PONT CANADA INC.

11/9/83

MATERIAL SAFETY DATA SHEET

SECTION I PRODUCT IDENTIFICATION	
TRADE NAME <i>TML</i> Motor Fuel Antiknock Compounds <i>NALCO</i>	C.A.S. NUMBER
SYNONYMS (Mixtures Contain) Tetraethyl and/or Tetramethyl Lead	FORMULA See below
MANUFACTURER'S NAME Du Pont Canada Inc.	TELEPHONE NUMBERS
ADDRESS Maitland, Ontario <i>CHERYL CHIU</i>	REGULAR 416-362-5621
<i>PAT BYRON - PETCHEM DIV. EXT. 262</i>	EMERGENCY 613-348-3616

SECTION II HAZARDOUS INGREDIENTS					
NAME	%	TLV* (Units)	NAME	%	TLV (Units)
Lead Alkyls	50.82 - 61.49 wt.		0.10 - 0.15 mg Pb/M ³		
Ethylene Dibromide*	17.86 wt.		145 mg/M ³		
Ethylene Dichloride	18.81 wt.		200 mg/M ³		
Solvent, antioxidant, dye and					
inerts**	12.51 - 1.84 wt.		-		

SECTION III PHYSICAL DATA			
BOILING POINT (°C) Initial, calculated (Decomposes)	95 - 150	SPECIFIC GRAVITY (H ₂ O = 1)	1.5 - 1.7
MELTING POINT (°C)		PERCENT VOLATILE BY VOLUME (%) Minute but highly toxic.	
VAPOR PRESSURE (kPa) @ 20° C.	0.7-5.5	EVAPORATION RATE (= 1) Similar to water.	
VAPOR DENSITY (AIR = 1)	4 - 7	SOLUBILITY IN WATER @ 38° C. % by wt. (Lead alkyl)	0.0001 - 0.01
APPEARANCE AND ODOR Material is dyed to detect leaks. Sweet, musty odour.			

SECTION IV FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (Method used) (°C) 32 - 125° C., By ASTM D1310 Tag open cup	FLAMMABLE LIMITS	LEL Unknown	UEL Unknown
EXTINGUISHING MEDIA Water, foam, dry chemical, CO ₂		AUTOIGNITION TEMPERATURE (°C)	
SPECIAL FIRE FIGHTING PROCEDURES Keep container cool - for detail see Du Pont Booklet, "Thermal Characteristics of Motor Fuel Antiknock Compound" MS171170			
UNUSUAL FIRE AND EXPLOSION HAZARDS May decompose if heated above 100° C. Rapid decomposition will cause container explosion.			

*Aviation mix contains no ethylene dichloride and 35.72 wt.% ethylene dibromide.

**Dye colour may be red, orange, or blue.

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DATE OF ISSUE:

SECTION V HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL(S)

0.075 mg Pb/M³ (OSHA)

ROUTES OF EXPOSURE

EFFECTS OF OVEREXPOSURE

May be fatal if swallowed, inhaled or absorbed through the skin.

EMERGENCY AND FIRST AID PROCEDURES

Skin: Flush with kerosene, wash with Soap & plenty of water. Eyes: Flush copiously with water for min. of 15 minutes. Inhalation: remove from exposure. Ingestion: if conscious, induce vomiting by sticking finger down throat. Promptly initiate gastric lavage. For any exposure, call a physician*.

SECTION VI REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

Fire and/or heat and strong oxidizing agents.

STABLE

X

Stable at ordinary temperatures.

INCOMPATIBILITY (Materials to avoid)

Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Lead oxides and other inorganic lead fumes.

HAZARDOUS
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

X

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Contain the spill. Evacuate area and keep all persons upwind. Wear self-contained breathing apparatus and full protective clothing. Contact Du Pont representative.

NEUTRALIZING CHEMICALS

WASTE DISPOSAL METHOD

Contaminated flammable materials may be disposed of by burning. Contaminated earth or porous surface should be removed and buried if permitted or weathered at isolated site. Contact Du Pont representative.

SECTION VIII SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS

Local ventilation.

PROTECTIVE EQUIPMENT
RESPIRATORY

Organic vapour cartridge type face mask for emergency or short duration.
Fresh air type mask for longer duration.

EYE AND FACE

Goggles as required.

HAND AND ARM

Impervious to protective gloves.

OTHER CLOTHING AND EQUIPMENT

Boots and light coloured clothing.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Closed system. Move under vacuum. Keep away from fire, heat and strong oxidizing agents.

Provide cooling water in event of fire.

OTHER PRECAUTIONS

Do not breathe vapour. Do not get on skin, in eyes or on clothing. Do not take internally.**

* For more details on medical treatment of organic lead poisoning see "Modern Occupational Medicine" by Fleming, D'Alonzo and Zapp, 2nd edition. ** Females of child-bearing capability not assigned to alkyl lead mfg. areas. Although there is no human data regarding effects in fetal development, animal studies have demonstrated fetal developmental abnormalities.