

**SECTION I-MATERIAL IDENTIFICATION AND USE**

Material Name/Identifier:	Diesel Fuel Oil Conditioner	Stock No.	991/992/993/994/995/998
Manufacturer's Name:	Kleen-Flo Tumbler Industries Ltd	Street Address:	75 Advance Blvd.
City:	Brampton	Province:	Ontario
Postal Code:	L6T 4N1	Emergency Phone #:	(905) 793-4311
Chemical Name:	N/A (mixture)	Chemical Family:	Blend of aliphatic alcohol & aromatic hydrocarbons.
Chemical Formula:	N/A (Mixture)	Trade Names & Synonyms:	No
Material Use:	Conditioner/Cleaner	Molecular Weight:	N/A (Mixture)

**SECTION II-HAZARDOUS INGREDIENTS OF MATERIAL**

Hazardous Ingredients	C.A.S.	Approximate Concentration	LD50 Species & Route	LC50 Species & Route
2-propanol	67-63-0	60-90%	5 g/kg rat-oral	12000 ppm (8hr) rat-inh.
Dimethyl benzene	1330-20-7	10-30%	4.3 g/kg rat-oral	5000 ppm (4hr) rat-inh.
Ethyl benzene	100-41-4	1 - 5%	3.5 g/kg rat-oral	N/A

**SECTION III-PHYSICAL DATA FOR MATERIAL**

Physical State:	Liquid	Odour/Appearance:	Colourless, water white liquid, alcohol odour
Specific Gravity:	0.8 @ 15°C	Odour Threshold(p.p.m.):	N/E
Boiling Point:	82-137°C	Evaporation Rate:	N/E
Freezing Point:	N/A	Solubility in Water:	87%
% Volatile(by volume):	100%	Vapour Pressure(mm)Hg:	4.4 kPa at 20°C
Vapour Density(Air=1):	2.2	Coefficient of Water/Oil Distribut:	3.5
pH	N.Ap.		

**SECTION IV-FIRE AND EXPLOSION HAZARD OF MATERIAL**

Flammability Yes/No	Yes	If yes under which conditions?	Can be ignited under normal temp. conditions.
Auto Ignition Temperature	N/E	Means of Extinction:	Alcohol Foam, carbon dioxide
Flashpoint and Method:	11°C	Hazardous Combustion Products:	Carbon monoxide, carbon dioxide, hydrocarbon fumes & smoke
Upper Flammable limit	Tag closed cup	Lower Flammable Limit(% by volume):	2%
(% by volume):	12%		
Explosion Data:	Sensitivity to Mech. Impact: Use only	Sensitivity to Static Discharge:	Yes
	non-sparking tool		use grounded equipment

**SECTION V-REACTIVITY DATA**

Chemical Stability Yes/No:	Yes	If NO under which conditions?	N.Ap.
Incompatibility to Other Substances Yes/No:	Yes	If so which ones?	Avoid contact with strong oxidizing materials, it may react with aluminum at high temp.
Reactivity and under what conditions?	Normally stable but can become unstable at elevated temp. and pressure.		
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide produced on combustion.		

N/E: not established

N.Ap.: not applicable

N/A: not available

<b>Material Name/Identifier:</b> Diesel Fuel Oil Conditioner		<b>Stock No.</b> 991/992/993/994/995/998		<b>PAGE 2</b>
<b><u>SECTION VI-TOXICOLOGICAL PROPERTIES OF PRODUCT</u></b>				
Route of Entry:	--SKIN CONTACT -x-SKIN ABSORPTION -x-EYE CONTACT -x-INHALATION -x-INGESTION			
Effects of Acute Exposure:	May cause slight eye irritation, headaches, nausea, dizziness, drowsiness and central nervous system depression.			
Effects of chronic exposure:	High exposure to dimethylbenzene to some animal studies have been reported to cause health effects on developing embryo/fetus. These effects were often at levels toxic to mother. The significance of these findings has not been determined.			
LD 50 of Product:	5gm/kg rat-oral	LC 50 of Product:	>12000 ppm rat-inh.	
Irritancy of Product:	skin and eye irritant	Exposure limits of products: 2-propanol- 400 ppm,		
Sensitization of Product:	N/A	ethyl benzene- 100 ppm, xylene- 100 ppm		
		Toxicologically Synergistic Materials:	N/A	
--CARCINOGENICITY --REPRODUCTIVE EFFECTS --TERATOGENICITY --MUTAGENICITY				none known
<b><u>SECTION VII-PREVENTIVE MEASURES</u></b>				
Personal Protective Equipment to be used:				
Gloves(specify):	Nitrile, viton & polyethylene	Eye(specify):	Chemical safety glasses	
Respiratory(specify):	Organic canister mask	Clothing:	Plastic apron Footwear: Oil resistant soles.	
Respiratory Protection:	If used indoors or on a continuous basis, use of cartridge type respirator is recommended			
<b><u>SECTION VII-PREVENTIVE MEASURES</u></b>				
Personal Protective Equipment to be used:				
Gloves(specify):	Nitrile, viton & polyethylene	Eye(specify):	Chemical safety glasses	
Respiratory(specify):	Organic canister mask	Clothing:	Plastic apron Footwear: Oil resistant soles.	
Respiratory Protection:	If used indoors or on a continuous basis, use of cartridge type respirator is recommended			
Handling procedure & Equip.	Use spark resistant tools and equipment for transfers.			
Leak and Spill Procedure:	Dyke and contain land spill. Soak residue with natural absorbent.			
Waste Disposal:	Incineration or dispose at an approved waste disposal facility.			
Storage Requirements:	Keep in a cool place.			
CEPA & DSL	All ingredients in the product are included in the DSL and are exempted from CEPA requirements.			
TDG Classification	991/992/993 : Consumer Commodity, 994/995/996/998 as follows:			
	Flammable liquids, N.O.S.* (2-propanol/Xylene), Class 3, UN 1993, Pkg.Gr.II			
WHMIS Classification:	991/992/993 - Consumer Commodity, #994/995/998 - Class B2, D2B & D2A			
<b><u>SECTION VIII-FIRST AID MEASURES</u></b>				
Eye:	Flush with water for at least 15 minutes.			
Skin:	Wash with soap and water			
Inhalation:	Remove to fresh air and restore breathing if required.			
Ingestion:	Contains petroleum distillate. Do not induce vomiting. Guard against aspiration into lungs.			
<b><u>SECTION IX-PREPARATION DATE OF M.S.D.S.</u></b>				
Additional Info/Comments:		Sources Used: NOISH Registry of Toxic Effects of Chemical Substances Shell Data		
Phone Number:	(905) 793-4311	Prepared By: Quality Control Laboratory		
Date:	March 3rd. 2003	Kleen-Flo Tumbler Industries Limited		
<b>THIS SHEET SUPERSEDES ANY OTHER M.S.D.S. PREVIOUSLY PREPARED</b>				
N/A: not available		N/E: not established		