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KLEEN-FLO TUMBLER INDUSTRIES LIMITED		MATERIAL SAFETY DATA SHEET		PAGE 1
SECTION I-MATERIAL IDENTIFICATION AND USE				
Material Name/Identifier:	Kleen-Start Starting Fluid	Stock No.	730	
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.Ap. (Mixture)	Chemical Family:	N/Av. (Mixture)	
Chemical Formula:	N.Ap. (Mixture)	Trade Names & Synonyms:	Kleen-Start	
Material Use:	Engine Starting Fluid	Molecular Weight:	N/Av. (Mixture)	
SECTION II-HAZARDOUS INGREDIENTS OF MATERIAL				
Hazardous Ingredients	C.A.S.	Approximate % Concentration	LD50 Species & Route	LC50 Species & Route
Diethyl ether	60-29-7	40-70	1215mg/kg rat-oral	73000 ppm(150 min.) rat-inhal.
Heptane	142-82-5	30-60	24000 mg/kg	14000 ppm (4 hr) rat-inhl.
Carbon dioxide	124-38-9	5-10	N/Av.	N/Av.
Upper Cylinder Lubricant	64741-89-5	1-5	N/Av.	N/Av.
SECTION III-PHYSICAL DATA FOR MATERIAL				
Physical State:	Liquid	Odour/Appearance:	ether-like odour/ colorless liquid	
Specific Gravity:	0.713	Odour Threshold(p.p.m.):	N/Av.	
Boiling Point:	35.5°C	Evaporation Rate:	>1 (Butyl-acetate=1)	
Freezing Point:	N/E	Solubility in Water:	Negligible	
% Volatile(by volume):	100	Vapour Pressure, psig	80 -90	
Vapour Density(Air=1):	>1	Coefficient of Water/Oil Distribut:	N/Av.	
pH	N/Av.			
SECTION IV-FIRE AND EXPLOSION HAZARD OF MATERIAL				
Flammability Yes/No:	Yes, extremely	If yes under which conditions?: Excessive heat, open flame or sparks		
Auto Ignition Temperature:	N/Av.	Means of Extinction: carbon dioxide, dry chemical, foam		
Flashpoint and Method:	-45°C	Hazardous Combustion Products: Hydrocarbon fumes, smoke,		
		Carbon dioxide, carbon monoxide.		
Flame Extension:	>45 cm but <100 cm	Flashback yes.		
Upper Flammable limit (%vol)	36	Lower Flammable Limit(% by volume) 1		
Explosion Data:	Sensitivity to Mechanical Impact: N.Ap	Sensitivity to Static Discharge:		N.Ap.
SECTION V-REACTIVITY DATA				
Chemical Stability Yes/No:	No	If NO under which conditions? above 35.5°C		
Incompatibility to Other Substances Yes/No:	Yes	If so which ones? Inorganic acid conc., Peroxides. Caustics		
Reactivity and under what conditions?	N/Av.	Strong oxidizing agent		
Hazardous Decomposition Products:	Carbon monoxide & carbon dioxides.			

N/E: not established		N.Ap.: not applicable		N/Av.: not available	
Material Name/Identifier: Kleen-Start Starting Fluid		Stock No. 730		PAGE 2	
SECTION VI-TOXICOLOGICAL PROPERTIES OF PRODUCT					
Route of Entry: ALL Routes		--SKIN CONTACT --SKIN ABSORPTION --EYE CONTACT --INHALATION --INGESTION			
Effects of Acute Exposure:		May cause defatting and drying of skin. May irritate mucous membranes of respiratory tract.			
		Overexposure may cause central nervous system depression. Headache or nausea.			
Effects of Chronic Exposure:		Continuous inhalation of spray may harmful or fatal.			
LD 50 of Product:		N/Av.		LC 50 of Product: N/Av.	
Irritancy of Product:		Skin & Eye Irritant		Exposure Limits of Product: N/Av.	
Sensitization of Product:		N/Av.		Toxicologically Synergistic Materials: N/Av.	
--CARCINOGENICITY --REPRODUCTIVE EFFECTS --TERATOGENICITY --MUTAGENICITY					
Diethyl ether has caused birth defects and toxicity to the fetus in animal tests.					
SECTION VII-PREVENTIVE MEASURES					
Personal Protective Equipment to be used:					
Gloves(specify):		Solvent resistant gloves		Eye(specify): Safety Glasses	
Respiratory(specify):		NOISH approved organic vapor mask		Clothing: Not required	
Respiratory Protection:		If used indoors or on a continuous basis, use of cartridge type respirator is recommended			
Engineering Controls:		Local ventilation to keep exposure limit below 400 ppm (diethyl ether).			
Waste Disposal:		Defective cans with residual liquid should be disposed of in an approved hazardous waste site.			
		Empty cans can disposed of at local recycling depots.			
Storage Requirements:		Storage at room temperature. Do not expose under direct sunlight for prolonged period.			
Handling Procedure &		Keep away from open flame and spark. Do not store above 30°C for a long period of time.			
Equipment:		Keep away from open flame and spark.			
NFPA30B/CNFC3.3.5		Level 3			
IATA (air transport)		Prohibited. (Passanger Aircraft)			
Marine (IMDG)		Limited Quantity, Aerosol, UN1950, Class 2.1			
DSL listing:		All components are listed in the inventory.			
TDG Classification:		Consumer Commodity			
WHMIS Classification:		Consumer Commodity - exempt from WHMIS labeling requirement.		Complies with CCCR 2001	
SECTION VIII-FIRST AID MEASURES					
Eye:		Flush with large amount of water for at least 15 minutes. If irritation persists, seek medical help.			
Skin:		Wash with soap and water.			
Inhalation:		Remove to open air. Maintain body warmth. Seek medical help.			
Ingestion:		DO NOT INDUCE VOMITING. Seek medical help.			
SECTION IX-PREPARATION DATE OF M.S.D.S.					
Additional Info/Comments:		Sources Used: Supplier's data			
Phone Number:		(905) 793-4311		Prepared By: Quality Control Laboratory	
Date Prepared:		January 31, 2010.		Kleen-Flo Tumbler Industries Limited	
THIS SHEET SUPERSEDES ANY OTHER M.S.D.S. PREVIOUSLY PREPARED					
N/E: not established		N.Ap.: not applicable		N/Av.: not available	