

KLEEN-FLO TUMBLER INDUSTRIES LIMITED			MATERIAL SAFETY DATA SHEET		PAGE 1
SECTION I-MATERIAL IDENTIFICATION AND USE					
Material Name/Identifier:	ACE-Start Starting Fluid	Stock No.	735		
Manufacturer's Name:	Kleen-Flo Tumbler Industries Ltd	Street Address:	75 Advance Blvd.		
City:	Brampton	Province:	Ontario		
Postal Code:	L6T 4N1	Emergency Phone #:	CANUTEC:-	613-996-6666 (24HR)	
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	4420-5840mg/kg rat-oral	14000 ppm (4 hr) rat-inhl.	
Carbon dioxide	124-38-9	5-10	N/Av.	N/Av.	
SECTION III-PHYSICAL DATA FOR MATERIAL					
Physical State:	Aerosol	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? Strong oxidizing agents, Nitric acid			
Reactivity and under what conditions?	N/Av.	Sulfuric acid, Amines.			
Hazardous Decomposition Products:	Carbon monoxide & carbon dioxides.				
N/E: not established		N.Ap.: not applicable		N/Av.: not available	

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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 and eye irritation. 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 NIOSH approved respirator is recommended			
Engineering Controls:	Local or mechanical ventilation required to keep exposure limit below 400 ppm (diethyl ether).			
Leak and Spill Procedure:	Absorb with inert non reactive absorbant. Use non sparking tool. Remove all ignition sources.			
Waste Disposal:	Do not puncture or incinerate, even when can is empty. Dispose as per local, provincial regulation.			
Storage Requirements:	Store in cool, well ventilated area at room temperature. Do not expose under direct sunlight for prolonged period.			
Handling Procedure &	Keep away from open flame and spark excessive heat. Do not store above 30°C for a long period of time.			
Equipment:	Keep away from reach of children. Do not inhale or ingest.			
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 plenty of water for at least 15 minutes. If irritation persists, seek medical help immediately.			
Skin:	Remove contaminated clothing. Wash with soap and water. If rash, irritation persists contact a physician.			
Inhalation:	Move patient to fresh air and restore breathing if required. If discomfort persist see a doctor.			
Ingestion:	DO NOT INDUCE VOMITING. Seek medical help immediately.			
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:	Janaury 2, 2015.	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