

Kleen-flo Tumbler Industries Ltd.		MATERIAL SAFETY DATA SHEET		PAGE 1
<b>SECTION I-MATERIAL IDENTIFICATION AND USE</b>				
Material Name/Identifier:	Brake Kleen (Deodorized)	Stock No.	313R	
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.Ap. (Mixture)	
Chemical Formula:	N.Ap (Mixture)	Trade Names & Synonyms:	Brake Kleen	
Material Use:	Cleaner	Molecular Weight:	N.Ap (Mixture)	
<b>SECTION II-HAZARDOUS INGREDIENTS OF MATERIAL</b>				
Hazardous Ingredients	C.A.S.	Approximate Conc. % Wt.	LD50	LC50 Species & Route
Tetrachloroethylene	127-18-4	60 -100	2629 mg/kg rat-oral	5200 ppm (4 hr) inhal. Mouse
Heptane	142-82-5	10 - 30	15000 mg/kg rat-oral	N/Av.
D-Limonene	5989-27-5	1-5	4400 mg/kg. Oral-rat	N/Av
Carbon Dioxide	124-38-9	1 -5	N/Av	N/Av
<b>SECTION III-PHYSICAL DATA FOR MATERIAL</b>				
Physical State:	Aerosol	Odour/Appearance:	chlorintated hydrocarbons/Clear colorless	
Specific Gravity:	1.2 (Concentrate)	Odour Threshold(p.p.m.):	N/A	
Boiling Point:	121 °C	Evaporation Rate:	(butyl acetate =1) > 1	
Freezing Point:	N/E	Solubility in Water:	ngligible	
% Volatile(by volume):	100%	Vapour Pressure(psig):	80 - 100	
Vapour Density(Air=1):	>1	Coefficient of Water/Oil Distribu	N/Av.	
pH	N/Av.			
<b>SECTION IV-FIRE AND EXPLOSION HAZARD OF MATERIAL</b>				
Flammability Yes/No	No,	If yes under which conditions:		
Auto Ignition Temperature:	N/Av.	Means of Extinction: carbon dioxide, dry chemical, water fog		
Flashpoint and Method:	N/Av.	Hazardous Combustion Products: Small amount of Phosgene and Chlorine, Hydrogen chloride, Hydrocarbon fume and smoke		
Upper Flammable limit (%vol)	N/E	Lower Flammable Limit(% by volume): N/E		
Explosion Data:	Sensitivity to Mech. Impact: N. Ap	Sensitivity to Static Discharge: N/Av		
<b>SECTION V-REACTIVITY DATA</b>				
Chemical Stability Yes/No:	Yes	If NO under which conditions?		
Incompatibility to Other Substances Yes/No:	Yes	If so which ones? strong oxidizing agents.		
		Sodium, Potassium, Calcium. Powdered Aluminum, Zinc etc.		
Reactivity and under what conditions?	not applicable			
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide in fire, Hydrogen chloride, Chlorine and small amount of phosgene may be formed.			
N/E: not established	N.Ap.: not applicable		N/Av: not available	

<b>Material Name/Identifier:</b> Brake Kleen (Deodorized)		<b>Stock No.</b> 313R		<b>Page 2</b>
<b>SECTION VI-TOXICOLOGICAL PROPERTIES OF PRODUCT</b>				
<b>Route of Entry: ALL Routes</b>		--SKIN CONTACT --SKIN ABSORPTION --EYE CONTACT --INHALATION --INGESTION		
<b>Effects of Acute Exposure:</b>		Headache, vomiting, dizziness, nausea, cough, pulmonary irritation.		
<b>Effects of Chronic Exposure:</b>		Prolong and over exposure may cause eye irritation, skin irritation defatting, dizziness, intoxication.		
		Inhalation of tetrechoroethylene at high concentration may have carcinogenic effect.		
<b>LD 50 of Product:</b>		N/E	<b>LC 50 of Product:</b>	N/E
<b>Irritancy of Product:</b>		Skin and Eye	<b>Exposure Limits of Product:</b>	N/E
<b>Sensitization of Product:</b>		N/E	<b>Toxicologically Synergistic Materials:</b>	N/E
<b>--CARCINOGENICITY --REPRODUCTIVE EFFECTS --TERATOGENICITY --MUTAGENICITY</b>				
Tetrachoroethylene is listed as a potential carcinogen by IARC. No information is available and no adverse reproductive effects are anticipated.				
<b>SECTION VII-PREVENTIVE MEASURES</b>				
<b>Personal Protective Equipment to be used:</b>				
<b>Gloves(specify):</b>		Chemical resistant glove	<b>Eye(specify):</b>	Wear safety glasses or goggles.
<b>Respiratory(specify):</b>		Not required in normal use	<b>Clothing:</b>	Not required
<b>Respiratory Protection:</b>		If used indoors or on a continuous basis, use of NIOSH approved cartridge type respirator is recommended		
<b>Engineering Controls:</b>		Local or mechanical positive exhaust ventilation required.		
<b>Leak and Spill Procedure:</b>		Absorbent material to be used.		
<b>Waste Disposal:</b>		Aerosol cans to be disposed of at local recycling depots. Or as per local regulation.		
<b>Storage Requirements:</b>		Store at room temperature. Keep closed when not in use.		
<b>Handling Procedures and</b>		Handle with care, keep away form heat, source of ignition, open flame.		
<b>Equipment:</b>		Keep away from children. Do not ingest or inhale.		
<b>HMIS Rating:</b>		H2, F0, R0		
<b>NFPA /CNFC 3.3.5</b>		Level 1		
<b>TDG Classification:</b>		Aerosol, limited quantity		
<b>WHMIS Classification:</b>		Consumer Commodity, Complying with CCCR 2001 Regulation		
<b>SECTION VIII-FIRST AID MEASURES</b>				
<b>Eye:</b>		Wash with water for at least 15 minutes. Consult a physician immed:		
<b>Skin:</b>		Wash with clean soapy water for 5 - 10 minutes, consult doctor if irritation or rash persist.		
<b>Inhalation:</b>		Move patient to fresh air and restore breathing if required. See doctor if discomfort persist.		
<b>Ingestion:</b>		DO NOT INDUCE VOMITING, Seek medical help immediately.		
<b>SECTION IX-PREPARATION DATE OF M.S.D.S.</b>				
<b>Additional Info/Comments:</b>		Sources Used: Supplier's data		
<b>Phone Number:</b>		(905) 793 4311	<b>Prepared By:</b> Quality Control Laboratory	
<b>Date Prepared:</b>		January 2 2012.	Kleen-Flo Tumbler Industries Limited	
<b>THIS SHEET SUPERSEDES ANY OTHER M.S.D.S. PREVIOUSLY PREPARED</b>				
<b>N/Ap.: not applicable</b>		<b>N/Av.: not available</b>		<b>N/E: not established</b>