

SECTION I-MATERIAL IDENTIFICATION AND USE

Material Name/Identifier:	Dot 3 Heavy Duty Brake Fluid	Stock No.	525/527/528/529/530
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:	mixture (N.Ap.)	Chemical Family:	Glycol ether
Chemical Formula:	mixture (N.Ap.)	Trade Names & Synonyms:	none
Material Use:	Brake fluid	Molecular Weight:	mixture (N.Ap.)

SECTION II-HAZARDOUS INGREDIENTS OF MATERIAL

Hazardous Ingredients	C.A.S.	Approximate % Concentration	LD50 Species & Route	LC50 Species & Route
Triethylene glycol monoethyl ether	112-50-5	15 - 40	7100 mg/kg rabbit-dermal	N/Av.
Triethylene glycol monobutyl ether	143-22-6	10 - 30	3540 mg/kg rabbit-dermal	>200ppm (1hr) rat-inhal
Triethylene glycol monomethyl ether	112-35-6	10 -30	7100mg/kg rabbit-dermal	N/Av.
Tetraethylene glycol	112-60-7	10 -30	22460mg/kg rabbit-dermal	N/Av.
Polyethylene glycol monomethyl ether	9004-74-4	5 - 15	2000mg/kg rabbit-dermal	N/Av.
Polyethylene glycol monobutyl ether	9004-77-7	1 - 10	3540mg/kg rabbit-dermal	N/Av.
Pentaethylene glycol	4792-15-8	1 - 10	20000mg/kg rabbit-dermal	N/Av.
Triethylene glycol	112-27-6	1 - 10	18016mg/kg rabbit-dermal	5.2mg/L(4hr) rat-inhal
Poly(ethylene oxide)	25322-68-3	1 - 5	>20000mg/kg rabbit-dermal	N/Av.
Diethylene glycol	111-46-6	1 - 5	13330mg/kg rabbit-dermal	4.6mg/L (4hr) rat-inhal
Diethylene glycol monobutyl ether	112-34-5	1 - 5	2764 mg/kg rabbit-dermal	N/Av.
Tetraethylene glycol monoethyl ether	5650-20-4	1 - 5	N/Av.	N/Av.
Hexaethylene glycol	2615-15-8	1 - 5	N/Av.	N/Av.
Sodium phosphate	7601-54-9	1 - 5	7940mg/kg rabbit-dermal	N/Av.
Sodium Hydroxide	1310-73-2	0.1 - 1	N/Av.	N/Av.
Diisopropanolamine	110-97-4	0.1 - 1	8000mg/kg rabbit-dermal	N/Av.
Potassium dihydrogen phosphate	7778-77-0	1 - 5	N/Av.	N/Av.
Phosphoric acid monosodium salt	7558-80-7	1 - 5	>5000mg/kg rabbit-dermal	N/Av.
Phosphoric acid	7664-38-2	0.1 - 1	2740 mg/kg rabbit-dermal	N/Av.

SECTION III-PHYSICAL DATA FOR MATERIAL

Physical State:	Liquid	Odour/Appearance:	Mild ethereal odour, transparent yellow colour
Specific Gravity:	1.045	Odour Threshold(p.p.m.):	N/E
Boiling Point:	262 °C	Evaporation Rate:	N/E
Freezing Point:	N/E	Solubility in Water:	Soluble
% Volatile(by volume):	N/Av.	Vapour Pressure(mm)Hg:	N/E
Vapour Density(Air=1):	6	Coefficient of Water/Oil Distrib. :	N/E
pH:	8 - 11.5		

SECTION IV-FIRE AND EXPLOSION HAZARD OF MATERIAL

Flammability Yes/No	No	If yes under which conditions?:	N.Ap.
Auto Ignition Temperature:	N/E	Means of Extinction: carbon dioxide, dry chemicals, foam	
Flashpoint and Method:	135 °C PMcc	Hazardous Combustion Products: Carbon monoxide, carbon dioxide, and oxides of nitrogen	
Upper Flammable limit (%vol)	N/E	Lower Flammable Limit (% by volume):	N/E
Explosion Data:	Sensitivity to mechanical impact: No.	Sensitivity to Static Discharge:	No.

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? Strong acid, base and oxidizers	
Reactivity and under what conditions?	Stable under normal conditions		
Hazardous Decomposition Products:	Carbon monoxide or carbon dioxide, Nitrogen oxide on burning		

N/E: not established

N.Ap.:not applicable

N/Av.: not available

Material Name/Identifier:		DOT 3 SUPER HEAVY DUTY BRAKE FLUID Stock No. 525/527/528/529/530		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 slight eye irritation and slight corneal injury. Skin contact may cause slight irritation. Inhalation of mist may cause upper respiratory tract irritation. Ingestion may cause nausea, vomiting, diarrhea, dizziness.			
Effects of Chronic Exposure:	Contains components which have been reported to cause effect on the following organs in animals: Bladder, Kidney. These effects were only observed at exaggerated doses.			
Irritancy of Product:	eye irritant	Exposure Limits of Product:	N/E	
Sensitization of Product:	N/E	Toxicologically Synergistic Materials:	N/E	
--CARCINOGENICITY --REPRODUCTIVE EFFECTS --TERATOGENICITY --MUTAGENICITY			none known	
SECTION VII-PREVENTIVE MEASURES				
Personal Protective Equipment to be used:				
Gloves(specify):	Neoprene, Nitrile, chemical resistant gloves	Eye (specify):	Safety Glasses	
Respiratory(specify):	Not required in normal use	Clothing:	Not required in normal use	
Respiratory Protection:	If used indoors or on a continuous basis, use of NIOSH approved cartridge type respirator is recommended			
Engineering Controls:	Local and mechanical ventilation if operated on a continuous period.			
Leak and Spill Procedure:	Use inert absorbent material, collect and contain for disposal. Prevent from entering waterways.			
Waste Disposal:	Dispose according to local government regulations			
Storage Requirements:	Store at room temperature, cool dry place. Keep lid tightly closed on when not in use			
Handling Procedures and equipment:	PROCESS HAZARD: Do not operate brake fluid at elevated temperature and pressure or with sudden ingress of air into vacuum equipment, it may result in ignitions without the presence of an obvious ignition source. Any use of this product in elevated temperature processes should be thoroughly evaluated to maintain safe operating conditions.			
	Avoid contact with eyes, skin. Do not inhale or ingest. Keep out of reach of children.			
DSL & TSCA:	The ingredients of this product are listed on the DSL.			
TDG Classification:	Not regulated			
WHMIS Classification:	D2B # 530			
SECTION VIII-FIRST AID MEASURES				
Eye:	Flush eyes thoroughly with water for at least 15 minutes. See doctor immediately if irritation persists.			
Skin:	Remove contaminated clothing. Wash with soap and water. See doctor if irritation, rashes persist.			
Inhalation	Remove patient to fresh air and restore breathing if required seek medical help if discomfort persists.			
Ingestion:	If patient is conscious, give a glass of water. DO NOT INDUCE VOMITING. Get immediate medical attention.			
SECTION IX-PREPARATION DATE OF M.S.D.S.				
Additional Info/Comments:		Sources Used:	Dow Chemical Company.	
Phone Number:	(905) 793-4311	Prepared By:	Quality Control Laboratory	
Date Prepared:	January 16, 2012.		Kleen-Flo Tumbler Industries Limited	
THIS SHEET SUPERSEDES ANY OTHER M.S.D.S. PREVIOUSLY PREPARED				
N/E: not established		N/Av.: not applicable		N/Av.: not available