

SECTION I-MATERIAL IDENTIFICATION AND USE

Material Name/Identifier:	Dot 3 Super Heavy Duty Brake Fluid	Stock No.:	525/526/527/528/529/530/531
Manufacturer's Name:	Kleen-Flo Tumbler Industries Ltd	Supplier:	Dow Chemicals Canada Inc.
Address:	75 Advance Blvd., Brampton, Ont.	Address:	P.O. Box 1012, Sarnia, Ontario N7T 7K7
Postal Code:	L6T 4N1	Emergency Phone #:	(905) 793-4311
Chemical Name:	Mixture (N.Ap.)	Chemical Family:	glycol ether/glycol
Chemical Formula:	Mixture (N.Ap.)	Trade Names & Synonyms:	None
Material Use:	Automotive brake fluid	Molecular Weight:	N.Ap.

SECTION II-HAZARDOUS INGREDIENTS OF MATERIAL

Hazardous Ingredients	C.A.S.	Approximate % Concentration	LD50 Species & Route	LC50 Species & Route
Polyethylene glycol monobutyl ether	9004-77-7	10-30	>2000 mg/kg rat-oral	N/A
Piperazine	110-85-0	0.1-1.0	2470 mg/kg, rat-oral	1530 ppm mouse, 2 hrs.
Proprietary mixture of glycol ethers, Polyglycols, glycols, oxidation inhibitors and corrosion inhibitors.	N/A	20 -40	N/A	N/A

SECTION III-PHYSICAL DATA FOR MATERIAL

Physical State:	Liquid	Odour/Appearance:	Mild ethereal odour, transparent yellow colour
Specific Gravity:	1.039	Odour Threshold(p.p.m.):	N/E
Boiling Point:	250 °C	Evaporation Rate:	<0.01
Pour Point	- 51oC	Solubility in Water:	100%
% Volatile(by volume):	2.8	Vapour Pressure(mm)Hg:	<0.01
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:	138 oC 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? Avoid strong alkalis at high temp, strong acids and oxidizing agents	
Reactivity and under what conditions?	Stable under normal conditions		
Hazardous Decomposition Products:	Carbon monoxide or carbon dioxide on burning		
N/E: not established	N.Ap.:not applicable	N/A: not available	

Material Name/Identifier: DOT 3 SUPER HEAVY DUTY BRAKE FLUID Stock No. 525/526/527/528/529/530/531 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:	Headache, dizziness, nausea, vomiting, cough, pulmonary edema. Skin contact may cause slight irritation.		
	Prolonged or repeated contact may cause defatting and drying of the skin		
Effects of Chronic Exposure:	Contains one or more amines which may react with nitrites to form nitrosamines.		
	Some nitrosamines have been shown to be carcinogenic in laboratory animals.		
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):	PVC-coated, nitrile or viton	Eye (specify):	Monogoggles
Respiratory(specify):	Not required	Clothing:	Not required
Respiratory Protection:	If used indoors or on a continuous basis, use of cartridge type respirator is recommended		
Engineering Controls:	Local and mechanical ventilation if operated on a continuous period.		
Leak and Spill Procedure:	For large spills, collect and contain for disposal.		
	Small spills could be flushed with large quantities of water.		
Waste Disposal:	Incinerate in a furnace when permitted under local government regulations		
Storage Requirements:	Store at room temperature. Keep lid 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.		
DSL & TSCA:	The ingredients of this product are listed on the DSL.		
TDG Classification:	Not regulated		
WHMIS Classification:	Consumer Commodity: 525/526/527/528 D2B: 529/530/531		
SECTION VIII-FIRST AID MEASURES			
Eye:	Flush with plenty of water for 15 minutes. Consult an ophthalmologist.		
Skin:	Remove contaminated clothing. Wash with soap and water.		
Inhalation	No emergency care is anticipated. Move person to fresh air; if effects occur, consult a physician.		
Ingestion:	If patient is conscious, give two glasses of water. DO NOT INDUCE VOMITING.		
	This should be done by trained personnel. Obtain medical attention.		
SECTION IX-PREPARATION DATE OF M.S.D.S.			
Additional Info/Comments:		Sources Used:	Dow Chemical Canada Inc.
Phone Number:	(905) 793-4311	Prepared By:	Quality Control Laboratory
Date:	January 10, 2006.		Kleen-Flo Tumbler Industries Limited
THIS SHEET SUPERSEDES ANY OTHER M.S.D.S. PREVIOUSLY PREPARED			
N/E: not established		N/A: not available	