

SECTION I-MATERIAL IDENTIFICATION AND USE

Material Name/Identifier:	KF MAX Motor Conditioner Gas Line Anti-Freeze	Stock No.	400
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/Av. (mixture)	Chemical Family:	Blend of aliphatic alcohol
Chemical Formula:	N/Av. (mixture)		& aromatic hydrocarbons
Material Use:	Gasline additive	Trade Mark & Synonyms:	KF MAX

SECTION II-HAZARDOUS INGREDIENTS OF MATERIAL

Hazardous Ingredients	C.A.S.	Approximate Concentration	LD50 Species & Route	LC50 Species & Route
2-propanol	67-63-0	60-100%	5045 mg/kg rat-oral	16000 ppm (4hr) rat-inh.
Dimethylbenzene	1330-20-7	10-30%	4300 mg/kg rabbit-dermal	5000 ppm (4hr) rat-inh.
Ethyl benzene	100-41-4	1-5%	3500mg/kg rat-oral	4000 ppm(4hr) rat-inhal

SECTION III-PHYSICAL DATA FOR MATERIAL

Physical State:	Volatile liquid.	Odour/Appearance:	Alcohol odour; clear, Light Yello liquid
Specific Gravity:	0.8 @15°C	Odour Threshold(p.p.m.):	N/Av.
Boiling Point:	82-137°C	Evaporation Rate:	N/Av.
Freezing Point:	N/Av.	Solubility in Water:	Partly soluble
% Volatile(by volume):	100%	Vapour Pressure(mm)Hg:	33.0 mmHg @ 20°C
Vapour Density(Air=1):	>1	Coefficient of Water/Oil Distribut:	N/E
pH	N.Ap.		

SECTION IV-FIRE AND EXPLOSION HAZARD OF MATERIAL

Flammability Yes/No	Yes	If yes under which conditions:	heat, open flame and sparks
Auto Ignition Temperature:	N/Av.	Means of Extinguishing:	Dry chemical, Carbon dioxide,
Flashpoint and Method:	11°C TCC	Alcohol - resistant foam.	
		Hazardous Combustion Products:	carbon monoxide and carbon dioxide
Upper Flammable limit(%vol)	12	Lower Flammable Limit(% by volume):	1
Explosion Data:	Sensitivity of mechanical impact: Yes	Sensitivity to Static Discharge:	Electrical & mechanical
		equipment should be explosion proof and grounded.	

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 oxidizing compounds, Acetaldehyde, Acids,
		Chlorine. May react with aluminum equipment at temperature above 120°F	
Reactivity and under what conditions?	Normally stable, but can become unstable at elevated temperatures & pressure		
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide produced upon combustion.		

N/E: not established

N.Ap.: not applicable

N/Av.: not available

SECTION VI-TOXICOLOGICAL PROPERTIES OF PRODUCT

Route of Entry: ALL Routes	--SKIN CONTACT --SKIN ABSORPTION --EYE CONTACT --INHALATION --INGESTION	
Effects of Acute Exposure:	Eye, Skin irritation. May cause headache, dizziness, nausea, drowsiness and central nervous system depression.	
Effects of Chronic Exposure:	High exposure to dimethylbenzene in some animal studies have been reported to cause health effects on developing embryo/fetus. Their effects were often at levels toxic to the mother. The significance of these findings to humans has not been determined.	
LD 50 of Product:	N/Av.	LC 50 of Product: N/Av.
Irritancy of Product:	Skin and eye irritant	Exposure Limits of Product: I.P.A. 200 ppm STEL
Sensitization of Product:	N/Av.	Xylene 150 ppm STEL, ethyl benzen 100 ppm SIEL
		Toxicologically Synergistic Materials: N/Av.
--CARCINOGENICITY --REPRODUCTIVE EFFECTS --TERATOGENICITY --MUTAGENICITY		none known

Ethyl benzene is listed as possible carcinogenic by IARC.

SECTION VII-PREVENTIVE MEASURES

Personal Protective Equipment to be used:

Gloves(specify):	Nitrile, Viton, Chemical resistant gloves	Eye(specify):	safety glasses
Respiratory(specify):	Organic vapour mask	Clothing:	Not required
Respiratory Protection:	If used indoors or on a continuous basis, use of NIOSH approved cartridge type respirator is recommended		
Engineering Controls:	Required adequate ventilation to maintain TLV limit, electrical and mechanical equipment should be sparkproof.		
Leak and Spill Procedure:	Use non-reactive absorbent material and non sparking tools to contain spills.		
	Incuse of large spill use explosion proof and grounded equipments.		
Waste Disposal:	Dispose of at an approved waste disposal facility. Or as per municipal or provincial regulation.		
Storage Requirements:	Keep in a cool well ventilated place. Keep away from heat, spark or flame		
Handling Procedures and	Handle with care. Keep away from children. Do not inhale or ingest.		
TDG Classification:	Consumer Commodity		
WHMIS Classification:	Consumer Commodity	Complies to CCCR 2001	
Domestic substance list:	All components of this product are either on the DSL or exempt.		

SECTION VIII-FIRST AID MEASURES

Eye:	Wash with water for at least 15 minutes. Seek mediact attention immediately.
Skin:	Wash with soap and water. See doctor if irritation persist.
Inhalation:	Move patient to fresh air and restore breathing if required. Call a physician if discomfort persist.
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:	January 2, 2012.	Kleen-Flo Tumbler Industries Limited

THIS SHEET SUPERSEDES ANY OTHER M.S.D.S. PREVIOUSLY PREPARED