

**SECTION I-MATERIAL IDENTIFICATION AND USE**

<b>Material Name/Identifier:</b>	<b>Kleen-Flo Engine Shampoo</b>	<b>Stock No.</b>	<b>645/646/649</b>
<b>Manufacturer's Name:</b>	<b>Kleen-Flo Tumbler Industries Ltd</b>	<b>Street Address:</b>	<b>75 Advance Blvd.</b>
<b>City:</b>	<b>Brampton</b>	<b>Province:</b>	<b>Ontario</b>
<b>Postal Code:</b>	<b>L6T 4N1</b>	<b>Emergency Phone #:</b>	<b>CANUTEC:- 613-996-6666 (24HR)</b>
<b>Chemical Name:</b>	<b>N/A (mixture)</b>	<b>Chemical Family:</b>	<b>Petroleum Distillate</b>
<b>Chemical Formula:</b>	<b>N/A (mixture)</b>	<b>Trade Names &amp; Synonyms:</b>	<b>None</b>
<b>Material Use:</b>	<b>Machine parts cleaner</b>	<b>Molecular Weight:</b>	<b>N/A</b>

**SECTION II-HAZARDOUS INGREDIENTS OF MATERIAL**

<b>Hazardous Ingredients</b>	<b>C.A.S.</b>	<b>Approximate Concentration (%)</b>	<b>LD50 Species &amp; Route</b>	<b>LC50 Species &amp; Route</b>
<b>Petroleum Distillate</b>	<b>68476-30-2</b>	<b>10-30</b>	<b>&gt; 5 g/kg rat-oral</b>	<b>&gt; 5000 mg/m3 rat (4 hr )</b>
<b>Stoddard Solvent</b>	<b>8052-41-3</b>	<b>60-100</b>	<b>&gt; 5 g/kg rat oral</b>	<b>&gt; 5 g/kg rat</b>
<b>Alcohol Ethoxylated</b>	<b>68439-46-3</b>	<b>1- 5</b>	<b>1400 mg/kg rat-oral</b>	<b>N/Av.</b>
<b>Alcohol, C12-13, Ethoxylated</b>	<b>66455-14-9</b>	<b>0.1 - 1</b>	<b>N/Av.</b>	<b>N/Av.</b>

**SECTION III-PHYSICAL DATA FOR MATERIAL**

<b>Physical State:</b>	<b>Liquid</b>	<b>Odour/Appearance:</b>	<b>Pine odour/ clear, red liquid</b>
<b>Specific Gravity:</b>	<b>0.8</b>	<b>Odour Threshold(p.p.m.):</b>	<b>N/E</b>
<b>Boiling Point:</b>	<b>150-300°C</b>	<b>Evaporation Rate:</b>	<b>N/E</b>
<b>Freezing Point:</b>	<b>N/Av.</b>	<b>Solubility in Water:</b>	<b>Partial soluble (emulsion)</b>
<b>% Volatile(by volume):</b>	<b>N/E</b>	<b>Vapour Pressure(mm)Hg:</b>	<b>N/E</b>
<b>Vapour Density(Air=1):</b>	<b>N/Av.</b>	<b>Coefficient of Water/Oil Distribut:</b>	<b>N/Av.</b>
<b>pH</b>	<b>N.Ap.</b>		

**SECTION IV-FIRE AND EXPLOSION HAZARD OF MATERIAL**

<b>Flammability Yes/No</b>	<b>Yes</b>	<b>If yes under which conditions?:</b>	<b>Combustible liquid</b>
<b>Auto Ignition Temperature:</b>	<b>N/E</b>	<b>Means of Extinction:Carbon dioxide foam, dry chemical, water fog</b>	
<b>Flashpoint and Method:</b>	<b>Tag c.c 47°C</b>	<b>Hazardous combustion products: Carbon dioxide, Carbon monoxide</b>	
<b>* NOTE: Do not apply to hot surfaces. It may catch fire.</b>		<b>Aldehydes, Sulfur dioxide, Hydrocarbon fumes, smoke.</b>	
<b>Upper Flammable limit (%vol)</b>	<b>N/Av.</b>	<b>Lower Flammable Limit(% by volume):</b>	<b>N/Av.</b>
<b>Explosion Data:</b>	<b>Sensitivity to Mechanical Impact: Yes</b>	<b>Sensitivity to Static Discharge: Yes</b>	<b>Use well grounded tools</b>

**SECTION V-REACTIVITY DATA**

<b>Chemical Stability Yes/No:</b>	<b>Yes</b>	<b>If NO under which conditions?</b>	<b>N/A</b>
<b>Incompatibility to Other Substances Yes/No:</b>	<b>Yes</b>	<b>If so which ones?</b>	<b>Strong oxidizing agents</b>
<b>Reactivity and under what conditions?</b>	<b>Do not use on hot surface/engines. It may cause spontaneous ignition.</b>		
<b>Hazardous Decomposition Products:</b>	<b>Carbon monoxide, carbon dioxide,Aldehydes, Sulfur dioxide, Smoke</b>		

**N/E: not established**

**N/Av.: 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:	May cause eye and skin irritation, if aspirated may cause lungs damage.		
Effects of Chronic Exposure:	Prolonged exposure to high vapor concentration can cause headaches, dizziness, nausea & other central nervous system effects. Small amount of liquid aspirated in to lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. Prolong and repeated contact with skin cause defatting and drying of the skin resulting in skin irritation and dermatitis.		
LD 50 of Product:	N/E	LC 50 of Product:	N/E
Irritancy of Product:	May cause eye, skin irritant	Exposure Limits of Product:	ACGIH: Stoddard solvent: 100 ppm TLV
Sensitization of Product:	N/Av.	Toxicologically Synergistic Materials:	N/Av.
--CARCINOGENICITY --REPRODUCTIVE EFFECTS --TERATOGENICITY --MUTAGENICITY			None known

**SECTION VII-PREVENTIVE MEASURES**

Personal Protective Equipment to be used:

Gloves(specify):	Chemical resistant gloves	Eye(specify):	Safety goggles
Respiratory(specify):	NIOSH- 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:	Local and mechanical ventilation required to maintain Exposure limit threshold.. Local desirable. To maintain below TLV, electrical and mechanical equipment should be spark-proof.		
Leak and Spill Procedure:	Contain spill, use with inert absorbent materials and non sparking tools. Prevent entering to waterways.		
Waste Disposal:	Dispose off according to municipal, provincial or federal regulation.		
Storage Requirements:	Store at room temperature, well ventilated area. Keep away from openflame, hot surface, source of ingintion. Keep container closed when not in use. Keep away from children.		
Handling Procedures and Equipment:	Avoid prolonged or repeated contact with skin. Do not inhale or ingest. Handle all chemicals with care. Keep away from children.		
DSL listing	All components are listed in the inventory.		
TDG Classification:	Exempted under part 1, section 1.33 for combustible liquid		
WHMIS Classification:	#645 Consumer Commodity, #646, #649 B3, D2B		

**SECTION VIII-FIRST AID MEASURES**

Eye:	Flush with plenty of water for 15 minutes. Consult a physician immediately if discomfort persist.
Skin:	Remove contaminated clothing. Wash with soap and water. See doctor if irritation or rashes
Inhalation:	Move patient to fresh air and restore breathing if required. See doctor 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 technical 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**

N/Av.: not available

N/Ap.: not applicable

N/E: not established