

**SECTION I-MATERIAL IDENTIFICATION AND USE**

<b>Material Name/Identifier:</b>	<b>Lock-De-Icer</b>	<b>Stock No.</b>	<b>612</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>Alcohol</b>	<b>Chemical Family:</b>	<b>Alcohol</b>
<b>Chemical Formula:</b>	<b>N. Ap (Mixture)</b>	<b>Trade Names &amp; Synonyms:</b>	<b>None</b>
<b>Material Use:</b>	<b>Spray de-icer</b>	<b>Molecular Weight:</b>	<b>N. Ap (Mixture)</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>Isopropyl Alcohol</b>	<b>67-63-0</b>	<b>60 - 100%</b>	<b>5045 mg/kg rat-oral</b>	<b>16000 ppm (4hr) rat-inh.</b>
<b>Carbondioxide</b>	<b>124-38-9</b>	<b>5-10%</b>	<b>N. Ap</b>	<b>N/Av.</b>

**SECTION III-PHYSICAL DATA FOR MATERIAL**

<b>Physical State:</b>	<b>liquid aerosol</b>	<b>Odour/Appearance:</b>	<b>alcohol odour/ clear, colourless liquid</b>
<b>Specific Gravity:</b>	<b>0.79</b>	<b>Odour Threshold(p.p.m.):</b>	<b>N/E</b>
<b>Boiling Point:</b>	<b>82°C</b>	<b>Evaporation Rate:</b>	<b>1.4 (Butyl acetate=1)</b>
<b>Freezing Point:</b>	<b>N/E</b>	<b>Solubility in Water:</b>	<b>85%</b>
<b>% Volatile(by volume):</b>	<b>100</b>	<b>Vapour Pressure(mm)Hg:</b>	<b>33mmHg @68°F</b>
<b>Vapour Density(Air=1):</b>	<b>N/E</b>	<b>Coefficient of Water/Oil Distribut:</b>	<b>N/E</b>
<b>pH</b>	<b>N/Av.</b>		

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

<b>Flammability Yes/No</b>	<b>Yes</b>	<b>If yes under which conditions:Open flame, spark, heat</b>
<b>Auto Ignition Temperature:</b>	<b>N/E</b>	<b>Means of Extinction: Dry chemical, carbon dioxide foam</b>
<b>Flashpoint and Method:</b>	<b>11°C</b>	<b>Hazardous Combustion Products: Oxide of carbon</b>
<b>Upper Flammable limit (%vol)</b>	<b>12.7</b>	<b>Lower Flammable Limit (% by volume)2</b>
<b>Explosion Data:</b>	<b>Sensitivity to Mechanical Impact: N.Ap.</b>	<b>Sensitivity to Static Discharge: N.Ap.</b>

**SECTION V-REACTIVITY DATA**

<b>Chemical Stability Yes/No:</b>	<b>Yes</b>	<b>If no under which conditions? N.Ap.</b>
<b>Incompatibility to Other Substances Yes/No:</b>	<b>Yes</b>	<b>If so which ones? Strong oxidizing agents, Nitrofoam,Sulfuric acid.</b>
<b>Reactivity and under what conditions?</b>	<b>Excessive heat, open flame, sprk, source of ignitions.</b>	
<b>Hazardous Decomposition Products:</b>	<b>Oxides of carbon.</b>	

**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:	Repeated or prolong exposure may irritate mucous membrane.		
LD 50 of Product:	N/E	LC 50 of Product:	N/E
Irritancy of Product:	N/E	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 or Nitrile rubber	Eye(specify):	Safety glasses
Respiratory(specify):	Not required during normal use	Clothing:	Not required
Respiratory Protection:	If used indoors or on a continuous basis, use of NIOSH approved respirator is recommended		
Engineering Controls:	Local or mechanical ventilation		
Leak and Spill Procedure:	Use non-reactive absorbent material and non sparking tools to contain spills.		
	Incase of large spill use explosion proof and grounded equipments. Prevent from entering waterways.		
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. Soore at room temperature.		
Handling procedure:	Handle with care. Keep away from children. Do not inhale or ingest.		
	Keep away fro excessive heat open flame, spark or source of ingition.		
DSL listing	All components are listed in the inventory.		
NPFA 30 B/CNFC3,3.5	Level 2		
TDG Classification:	Consumer Commodity		
WHMIS Classification:	Consumer Commodity	Complies with CCCR	

**SECTION VIII-FIRST AID MEASURES**

Eye:	Flush with water for at least 15 minutes. Seek mediacd attention immediately if irritation persist.
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 VOMITNG. Seek medical help

**SECTION IX-PREPARATION DATE OF M.S.D.S.**

Additional Info/Comments:		Source used: Supplier's data
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/Av.: not available

N/Ap.: not applicale

N/E: not established