

SECTION I-MATERIAL IDENTIFICATION AND USE

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|---------------------------|----------------------------------|-------------------------|------------------|
| Material Name/Identifier: | Kleen-Start Starting Fluid | Stock No. | 730 |
| Manufacturer's Name: | Kleen-Flo Tumbler Industries Ltd | Street Address: | 75 Advance Blvd. |
| City: | Brampton | Province: | Ontario |
| Postal Code: | L6T 4N1 | Emergency Phone #: | (905) 793-4311 |
| Chemical Name: | N/A (Mixture) | Chemical Family: | N/A (Mixture) |
| Chemical Formula: | N/A (Mixture) | Trade Names & Synonyms: | Kleen-Start |
| Material Use: | Engine Starting Fluid | Molecular Weight: | N/A (Mixture) |

SECTION II-HAZARDOUS INGREDIENTS OF MATERIAL

| Hazardous Ingredients | C.A.S. | Approximate % Concentration | LD50 Species & Route | LC50 Species & Route |
|--------------------------|------------|-----------------------------|----------------------|----------------------|
| Diethyl ether | 60-29-7 | 40-70 | N/A | N/A |
| Heptane | 142-82-5 | 40-70 | N/A | N/A |
| Carbon dioxide | 124-38-9 | 5-10 | N/A | N/A |
| Upper Cylinder Lubricant | 64741-89-5 | 1-5 | N/E | N/E |

SECTION III-PHYSICAL DATA FOR MATERIAL

| | | | |
|------------------------|--------|-------------------------------------|------------------------------------|
| Physical State: | Liquid | Odour/Appearance: | ether-like odour/ colorless liquid |
| Specific Gravity: | 0.713 | Odour Threshold(p.p.m.): | N/A |
| Boiling Point: | 35.5°C | Evaporation Rate: | 37.5 (Butyl-acetate=1) |
| Freezing Point: | N/E | Solubility in Water: | 6.5% |
| % Volatile(by volume): | 100 | Vapour Pressure(mm)Hg: | 537 |
| Vapour Density(Air=1): | 2.55 | Coefficient of Water/Oil Distribut: | N/A |
| pH | N/A | | |

SECTION IV-FIRE AND EXPLOSION HAZARD OF MATERIAL

| | | |
|---|--|--|
| Flammability Yes/No: | Yes, extremely | If yes under which conditions?: Excessive heat, open flame or sparks |
| Auto Ignition Temperature: | N/A | Means of Extinction: carbon dioxide, dry chemical, foam |
| Flashpoint and Method: | -49°C | Hazardous Combustion Products: N/A |
| | Tag C.C. | |
| Upper Flammable limit (% by volume): | 48 | Lower Flammable Limit(% by volume): 1.85 |
| Explosion Data: | Sensitivity to Mechanical Impact: N.Ap | Sensitivity to Static Discharge: N.Ap |

SECTION V-REACTIVITY DATA

| | | | |
|---|------------------------------------|-------------------------------|---|
| Chemical Stability Yes/No: | No | If NO under which conditions? | above 35.5°C |
| Incompatibility to Other Substances Yes/No: | Yes | If so which ones? | Inorganic acid conc., Peroxides. Caustics |
| Reactivity and under what conditions? | N/A | | |
| Hazardous Decomposition Products: | Carbon monoxide & carbon dioxides. | | |

N/E: not established

N.Ap.: not applicable

N/A: not available

| | | | |
|--|--|--|---------------------------------------|
| Material Name/Identifier: Kleen-Start Starting Fluid | | Stock No. 730 | 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 defatting and drying of skin. May irritate mucous membranes of respiratory tract. | | |
| | Overexposure may cause central nervous system depression. Headche or nausea. | | |
| Effects of Chronic Exposure: | Continuous inhalation of spray may cause death (50 ml.) | | |
| LD 50 of Product: | N/A | LC 50 of Product: | N/A |
| Irritancy of Product: | Skin & Eye Irritant | Exposure Limits of Product: | N/A |
| Sensitization of Product: | N/A | Toxicologically Synergistic Materials: | N/A |
| --CARCINOGENICITY --REPRODUCTIVE EFFECTS --TERATOGENICITY --MUTAGENICITY | | | None Known |
| SECTION VII-PREVENTIVE MEASURES | | | |
| Personal Protective Equipment to be used: | | | |
| Gloves(specify): | Rubber | Eye(specify) | Goggles |
| Respiratory(specify): | NOISH organic vapor mask | Clothing: | Not required |
| Respiratory Protection: | If used indoors or on a continuous basis, use of cartridge type respirator is recommended | | |
| Engineering Controls: | Local ventilation to keep exposure limit below 400 ppm (diethyl ether). | | |
| Leak and Spill Procedure: | Absorb with paper towel which should then be taken away to a safe place for evaporation. | | |
| Waste Disposal: | Defective cans with residual liquid should be disposed of in an approved hazardous waste site. | | |
| | Empty cans can disposed of at local recycling depots. | | |
| Storage Requirements: | Storage at room temperature. Do not expose under direct sunlight for prolonged period. | | |
| Handling Procedure & | Keep away from open flame and spark. Do not store above 30°C for a long period of time. | | |
| Equipment: | Keep away from open flame and spark. | | |
| IATA (air transport) | Aerosol, flammable, n.o.s., (engine starting fluid), UN 1950. Class2.1 | | |
| Marine (IMDG) | Aerosol, UN1950, Class 2, Marine Pollutant (Class 2.1 red label is required) | | |
| TDG Classification: | Consumer Commodity | | |
| WHMIS Classification: | Consumer Commodity - exempt from WHMIS labelling requirement. | | |
| | If required: Class A,B5,D2B | | |
| SECTION VIII-FIRST AID MEASURES | | | |
| Eye: | Flush with large amount of water for at least 15 minutes. If irritation persists, seek medical help. | | |
| Skin: | Wash with soap and water. | | |
| Inhalation: | Remove to open air. Maintain body warmth. Seek medical help. | | |
| Ingestion: | Do not induce vomiting. Seek medical help. | | |
| SECTION IX-PREPARATION DATE OF M.S.D.S. | | | |
| Additional Info/Comments: | | Sources Used: | Handbook of Poisoning by R. Dreisbach |
| Phone Number: | (905) 793-4311 | Prepared By: | Quality Control Laboratory |
| Date: | March 3rd 2003 | Kleen-Flo Tumbler Industries Limited | |
| THIS SHEET SUPERSEDES ANY OTHER M.S.D.S. PREVIOUSLY PREPARED | | | |
| N/A: not available | | N/E: not established | |