MATERIAL SAFETY DATA SHEET
Effective Date: January 13, 2003 Revised: January 3, 2013

Chemical Product and Company Identification:

FPPF Chemical Co.: 117 West Tupper Street; Buffalo, NY 14201-2193 (800) 735-FPPF (3773).
Emergency Phone: Chemtrec – (800) 424-9300
Product Name: **Fleet Formula Year Round** Product Codes: 00393, 90393, 00395P, 00396
Chemical Family/Class: Mixture, solvent-based CAS Number: Not applicable

Composition Data:

			OSHA	ACGIH	
			PEL	TLV	STEL
Hazardous Components[1,5]	% range	CAS#	ppm	ppm	ppm
Petroleum distillate	30-60	8052-41-3	100	100	200
Glycol ether[2,3,4]	10-20	111-76-2	50-skin (TWA)	20-skin (TWA)	
Trimethylbenzene[3,4]	< 0.03	95-6-3	N/E	25 (TWA)	N/E

[1] Components presenting a physical or health hazard or subject to CERCLA or SARA reporting requirements and found at or above 1% (0.1% if identified as a carcinogen). Other components may be listed if deemed appropriate.
[2] Chemical subject to reporting requirements of CERCLA (40 CFR 302.4).
[3] Chemical subject to reporting requirements of SARA Section 313 (40 CFR 372).
[4] For additional data, consult last section of this document
[5] Some components present due to incorporation in another listed component. Total percentage may add up to equal greater than 100%.

N/E = Not Established

Typical Physical Data (not specifications)

Boiling Point, ^{0}F (typical): > 310
Specific Gravity @ Room Temp: ca. 0.84
Vapor Pressure @ 20^{0}C, mm Hg: < 4
Vapor Density (air =1): > 4
Evaporation Rate: < Butyl Acetate
Solubility in Water: Partially soluble
Appearance: Clear and colorless to faint amber
Odor: Solvent-like
Physical State: Liquid
Percent Volatile (approx): 100%

Fire and Explosion Hazard Data:

Specific Hazard: Material is considered **Flammable** by current U.S. D.O.T. criteria

Flash Point, typical (TCC): 110^{0}F Autoignition Temperature: N/D (not determined)
Flammability Limits: Upper: 10% Lower: 1%

Extinguishing Media: Foam, CO2 or Dry Chemical. Water fog may be used only for cooling exposed material.

Special Firefighting Procedures: Avoid contact with vapors. Do not use water except as a fog; material may float on water. Use of self-contained breathing apparatus with full face mask is recommended for all chemical fires.

Fire and Explosion Hazard Data (Cont.):

Unusual Fire or Explosion Hazards: Toxic or noxious fumes, gases or vapors may evolve on burning. Vapors which are heavier than air may be evolved and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point. Metal containers should be grounded and/or bonded when material is transferred.

Reactivity Data:

Stability: Stable under ordinarily expected conditions.

Hazardous Polymerization: Will not occur.

Incompatibilities: Strong oxidizing agents, strong alkalis, strong acids.

Conditions to Avoid: Elevated temperatures (over 100ºC / 212ºF), open flame.

Hazardous Combustion or Decomposition Products: Combustion may produce carbon monoxide, carbon dioxide, smoke, aldehydes and other reactive hydrocarbons, and other products of incomplete combustion.

Health Hazard Data:

Primary Routes of Entry: Inhalation, Skin Absorption, Skin Contact, Eye Contact.

Acute Exposure Effects**:**

Swallowing: Moderate toxicity. May cause central nervous system depression (e.g. headache, general weakness, dizziness, drowsiness, unconsciousness), irritation of the gastrointestinal lining, vomiting, nausea, diarrhea, and abdominal pain. Swallowing large amounts may be harmful. Symptoms may include blood abnormalities (red blood cell hemolysis), kidney or liver damage and coma. Aspiration of product into airways incidental to swallowing or vomiting may cause mild to severe pulmonary injury, possibly progressing to death. (See "Inhalation.")

Skin Absorption: Skin absorption is possible. Effects may include those described for swallowing. Prolonged or extensive contact may result in the absorption of potentially harmful amounts of material.

Inhalation: Short-term single exposure toxicity is moderate. Headache, nausea, vomiting, dizziness and drowsiness and other central nervous system effects may occur. Exposure to high vapor concentrations or prolonged exposure to lesser concentrations may be harmful. Symptoms include irritation of the respiratory tract, eyes and throat, stupor, nasal discomfort and discharge, possible chest pain and coughing. Breathing of vapors may aggravate asthma and inflammatory or fibrotic pulmonary disease.

Health Hazard Data (Cont.)

Skin Contact: Brief contact may cause mild skin irritation, possibly with itching or local redness. Prolonged contact may cause more severe irritation, with discomfort or pain and dermatitis (redness, edema, drying, defatting and cracking of the skin), and may also result in skin absorption.

Eye Contact: Exposure to liquid or high concentrations of vapors may be severely irritating to the eyes. Symptoms include discomfort, pain, excessive blinking and tear production, marked excess redness and swelling of the conjunctiva, and risk of irreversible damage to the eyes.

Target Organ Effects: Acute lethal exposure to the glycol either in animal studies has resulted in congestion of organs including kidney, spleen and lung. Overexposure to this same material has been suggested as a cause of the following effects in laboratory animals, and may aggravate pre-existing disorders of these organs in humans; mild, reversible liver effects, mild reversible kidney effects, blood abnormalities.

Chronic Exposure Effects:

Effects of Repeated Overexposure: Acute lethal-exposure animal studies of the glycol ether have resulted in congestion of organs including kidney, spleen and lungs. Fetal harm occurs only at exposure levels harmful to the pregnant animal. Simple animal overexposure studies of the same material have reported mild, reversible effects to liver and kidney, and red blood cell hemolysis, however humans appear resistant to this effect.

First Aid:

Swallowing: If patient is fully conscious, give two glasses of water. Place individual on left side with the head down. Do not induce vomiting. Obtain immediate medical attention. Never give anything by mouth if person is unconscious.

Skin: Remove contaminated clothing. Wash exposed skin with soap and water. If symptoms develop or persist, seek medical attention. Launder contaminated clothing before reuse and discard shoes and other leather articles saturated with the product.

Inhalation: Remove affected individual to fresh air. Immediately seek medical attention. If breathing is labored, administer oxygen. If breathing has stopped, administer artificial respiration.

Eyes: Remove individual from exposure and into fresh air. Immediately flush eyes with plenty of water until irritation subsides, but for at least 15 minutes, while holding eyelids apart. DO NOT remove contact lenses if worn. Obtain medical attention without delay, preferably from an ophthalmologist.

Notes to Physician: No specific antidote. Treat symptomatically.

Handling and Storage:

Precautions: Keep product and container away from potential sources of ignition. Do not freeze product. Do not subject to excessive heat. Keep out of reach of children. Do not contaminate foodstuffs by storage or use of this material. Do not mix with other chemicals except under the direct supervision of a chemist or technically trained supervisor. Open container only in a well-ventilated area. Do not breathe fumes or vapors. Keep containers tightly closed when not in use. Wash thoroughly after handling, and particularly before eating, drinking or smoking. Do not transfer to unmarked containers.

WARNINGS: HARMFUL IF ABSORBED THROUGH SKIN. HARMFUL IF SWALLOWED. CAUSES EYE AND SKIN IRRITATION. FLAMMABLE. SWALLOWING LARGE QUANTITIES MAY CAUSE RED BLOOD CELL DAMAGE.

Special Precautions:

WARNING!! Sudden releases of hot organic vapors or mists from equipment operating elevated temperature and pressure, or sudden ingress of air into vacuum equipment may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

NOTICE: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in this data sheet must be observed.

Accidental Release, Spill or Leak Procedures:

Spill Procedures: Evacuate all non-essential personnel. Personal Protective Equipment appropriate to the nature of the spill must be worn. Remove sources of ignition. Ventilate spill area. Stop spill at source. Prevent entry into sewers and waterways. Collect free liquid for disposal. Residual liquid may be absorbed using inert material. Transfer contaminated absorbent, soil, etc. into containers for disposal. Spills may be reportable under CERCLA, SARA or DOT criteria, depending on quantities involved.

Disposal Methods: Dispose of liquid or contaminated solid materials in conformance with all applicable Federal, State or Local regulations. Incineration of waste material may be suggested as a practical remedy.

Personal Protective Equipment and Protection Information:

Respiratory Protection: If airborne exposure limit for any component is exceeded, use an approved respirator for organic vapors. Self-contained or air-supplied breathing apparatus is preferred. OSHA regulations also permit other respirators under specified conditions. Consult your Industrial Hygienist for guidance. Implement engineering or administrative controls to reduce exposures.

Personal Protective Equipment and Protection Information (Cont.):

Ventilation: Provide sufficient mechanical (General and/or Local Exhaust) ventilation to control mists or vapors and maintain exposure below TLV's.

Protective Gloves: Wear impervious or resistant gloves such as Nitrile or Neoprene rubber. Test gloves for permeability before relying on them.

Eye protection: Chemical splash goggles or a full face shield are advised. OSHA permits other protective means as appropriate. NEVER wear contact lenses when handling chemicals of any sort.

Other Protective Clothing or Equipment: Use chemical-resistant apron or other impervious clothing if required to avoid contamination. A long-sleeved shirt is recommended. Use impervious boots (Test!) to avoid contamination of shoes. Never wear rings, watchbands or other items that may entrap materials against the skin when handling chemicals of any sort; similarly, the availability of a safety shower and eye bath in the vicinity is advised for all chemical handling operations.

Selected Regulatory & Miscellaneous Data:

TSCA: all components of this product are on the US TSCA Inventory. 1,2,4-Trimethylbenze may be subject to export notification under TSCA Section 12(b).

EPA Hazard Categories: Delayed Health, Fire, Immediate Health.

HMIS Hazard Ratings: Health 2; Fire 2; Reactivity 0; Protection: G (Eyes, Gloves, Respirator)
NFPA Hazard Ratings: Health 2, Fire 2; Reactivity 0: Protection: G (Eyes, Gloves, Respirator)

CERCLA & SARA Information: This product contains chemicals subject to the reporting requirements of SEction 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (SARA): Glycol Ether, Naphthalene and Trimethylbenzene. May also contain trace amounts of Ethylene glycol (CAS# 107-21-1) and 2-Ethylhexanol (104-76-7) at less than the reporting threshold. CERCLA reportable substance, no RQ established: Glycol ether.

D.O.T. Shipping Stipulation: Flash point between 100-140ºF. Flammable reclassified Combustible for ground shipping (CFR 173.120(b)(2)).

Disclaimer:

All information contained herein is compiled from sources believed dependable and is accurate to the best of the preparer's knowledge; however, no guarantee or warranty whatsoever is made, expressed or implied, of merchantability or fitness for any particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. The onus for safe use of any chemical rests with the user, who must determine for himself the suitability for the product for any intended purpose. Use should not assume that no hazards or appropriate precautions exist other than those found in these pages. No information or suggestions contained herein shall be construed as a recommendation to infringe any patent.