

## SECTION I

IDENTIFICATION

**AFD-8062**

October 15, 2004

MANUFACTURER/DISTRIBUTOR

AFD Technologies  
375 Fentress Blvd. Suite 100  
Daytona Beach, FL 32114

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R	0	
PE	B	

PHONE NUMBERS

Product Information (386) 248-3283  
Medical Emergency (800) 424-9300 [Inside U.S.]  
(703) 527-3887 [Outside U.S.]

CHEMICAL FAMILY

Organometallic Octane Booster Concentrate

## SECTION II – HAZARDOUS INGREDIENTS

<u>CHEMICAL NAMES</u>	<u>CAS NUMBER</u>	<u>EXPOSURE LIMITS</u>
Methylcyclopentadienyl Manganese Tricarbonyl	12108-13-3	0.2mg/M <sup>3</sup> PEL as Mn (OSHA)
Petroleum Distillate	64742-94-5	50mg/M <sup>3</sup> (OSHA)
Petroleum Distillate	64742-95-6	Not established by OSHA/ACGIH
Stoddard Solvent	8052-41-3	100 ppm TWA8 (OSHA/ACGIH)
Xylene	1330-20-7	100 ppm/150 ppm TWA8/STEL (OSHA)
1,3,5-trimethylbenzene	108-67-8	Not established by OSHA
1,2,4-trimethylbenzene	95-63-6	Not established by OSHA
Cumene	98-82-8	50 ppm TWA8, skin (OSHA/ACGIH)
Trimethylbenzene	25551-13-7	25 ppm TWA8 (OSHA/ACGIH)

## SECTION III – PHYSICAL DATA

BOILING RANGE	250°F+	SPECIFIC GRAVITY (WATER = 1)	1.11
VAPOR PRESSURE	Not Available	PERCENT VOLATILES BY VOLUME	n.a.
		PERCENT SOLIDS BY VOLUME	n.a.
VAPOR DENSITY	Not Available	EVAPORATION RATE	Less than Ether
WATER SOLUBILITY	Negligible	pH	n/a
APPEARANCE	Orange liquid	ODOR	Aromatic

## SECTION IV – FIRE/EXPLOSION HAZARDS

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FLASHPOINT (T.C.C.) >125°F                      FLAMMABILITY LIMITS:                      LEL: n/a; UEL: n/a;

EXTINGUISHING MEDIA - Carbon dioxide (CO<sub>2</sub>), dry chemical, foam or other National Fire Protection Association (NFPA) approved method for treating a Class B fire.

SPECIAL FIRE FIGHTING PROCEDURES - Summon professional firefighters. Use full protective equipment including self-contained breathing apparatus. Water spray may be ineffective. If water is used, fog nozzles are preferable. If exposed to fire or extreme heat, water should be used to cool closed containers and prevent pressure build-up or possible auto-ignition.

UNUSUAL FIRE AND EXPLOSION HAZARDS - Keep containers tightly closed. Isolate from heat and flame. Due to pressure build-up, closed containers exposed to extreme heat may explode. Never use a welding or cutting torch on or near container (even empty) as product or its residue may ignite. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

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## SECTION V – HEALTH HAZARD DATA

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THRESHOLD LIMIT VALUE (TLV)	See Section II
PERMISSIBLE EXPOSURE LIMIT (PEL)	See Section II
OTHER LIMITS	See Section II

### EFFECTS OF OVER EXPOSURE:

**ACUTE:** **Breathing** - Irritation of the respiratory tract; headache, nausea dizziness, weakness and fatigue. Extreme exposure can result in unconsciousness and even respiratory arrest. **Eye Contact** - Eye irritant. **Skin Contact** - Prolonged and repeated skin contact may cause defatting and dermatitis. **Swallowing** - Vomiting may result. Pulmonary aspiration hazard if vomiting occurs.

**CHRONIC:** Reports have associated repeated and prolonged occupational overexposure to hydrocarbon solvents with permanent brain and nervous system damage.

PRIMARY ROUTES OF ENTRY - Inhalation, skin contact, and swallowing.

EMERGENCY AND FIRST AID PROCEDURES: **IF BREATHED** - If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, summon medical assistance immediately. If breathing ceases, restore using approved CPR techniques and summon medical assistance immediately. **IF IN EYES** - Flush immediately with large amounts of water for at least 15 minutes. Get medical assistance if irritation persists. **IF ON SKIN** - Wash affected area with soap and water. Remove soiled clothing. Get medical assistance if irritation persists. Wash clothing before reuse. **IF SWALLOWED** – *GIVE TWO GLASSES OF WARM SALT WATER AND INDUCE VOMITING. CONSULT A PHYSICIAN IMMEDIATELY.* Aspiration of vomitus can cause chemical pneumonitis that can be fatal.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE - None when used in accordance with the Special Protection Information (Section VIII).

WARNING: Misuse by deliberately concentrating and inhaling the vapor from the contents may be harmful or fatal.

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### **SECTION VI – REACTION DATA**

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STABILITY - Product is stable.

CONDITIONS TO AVOID - Heat, sparks, flames.

INCOMPATIBILITY (MATERIALS TO AVOID) - Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS - Thermal decomposition may yield carbon monoxide and dioxide.

HAZARDOUS POLYMERIZATION - Will not occur.

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### **SECTION VII – SPILL PROCEDURES**

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STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED - Remove all sources of ignition (flames, hot surfaces, and electrical, static or frictional sparks). Do not smoke. Prevent breathing of vapors. Ventilate area. Before attempting to clean up, refer to hazard caution information in other sections of this material safety data sheet. Dike and contain spilled material and remove with inert absorbent and non-sparking tools. Store in closed container until product can be properly disposed of. Dispose of in accordance with local, state and federal regulations. Incinerate only in an approved facility. Do not incinerate closed containers.

CERCLA (SUPERFUND) REPORTABLE QUANTITY (in lbs.) - Refer to Section 311 of The Clean Water Act.

VOLATILE ORGANIC COMPOUNDS (VOC): Not determined

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### **SECTION VIII – SPECIAL PRECAUTIONS**

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RESPIRATORY PROTECTION - When used in restricted ventilation areas, wear NIOSH/MDHS approved chemical/mechanical filters designed to remove a combination of particulates and vapor. When used in confined areas, wear NIOSH/MSHA approved air supply respirators or hoods. Follow respirator manufacturer's directions for respirator use. If respirators are used, a program should be established to assure compliance with OSHA Standard 29 CFR 1910.134. Use product only with adequate ventilation. Use either local exhaust or mechanical means to meet TLV requirements. Ventilation must be sufficient to limit employee exposure at, or below applicable health and safety standards. Heavy solvent vapors should be removed from lower levels of work areas.

PROTECTIVE EQUIPMENT - Neoprene or equivalent gloves; chemical goggles; solvent impermeable clothing should be worn if contact is likely; maintain ready access to eye bath and safety shower.

HANDLING AND STORAGE PRECAUTIONS - Keep away from heat, flame and sparks. Do not smoke. Prevent build-up of vapors by maintaining continuous flow of fresh air. Do not store above 120°F or near fire or open flame. Store large quantities in buildings to comply with OSHA 1910.106. Keep container closed when not in use. Do not transfer contents to bottles or unlabelled containers. Do not reuse empty containers. Keep out of reach of children.

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### **SECTION IX – DOT SHIPPING INFORMATION**

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SHIPPING NAME – Flammable Liquid, toxic, n.o.s. (contains Petroleum Distillates, Methylcyclopentadienyl Manganese Tricarbonyl), 3, UN 1992, III.

FOR OCEAN SHIPMENTS: Marine Pollutant (trimethylbenzenes).

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