

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name: Fuel System Cleaner-Concentrate **MSDS 181-6091K**

Product part numbers: 92-858070K01, 92-858070KC1

Company: Mercury Marine

Address: W6250 W.Pioneer Rd., PO Box 1939, Fond du Lac, WI 54936-1939

Phone #:920-929-5000

Emergency: 800 424 9300 (CHEMTREC) United States Only

MSDS Preparation Date: May 01, 2008.

2. HAZARDOUS INGREDIENTS

Ingredient	% By Volume (Optional)	CSA #	REG. AGENCY	Value
Kerosene	78-83	8008-20-6	ACGIH - TLV	100 mg/m3
Polyolefin alkyl phenol alkyl amine	Balance	Proprietary Mixture	Not Established	
Ethyl Benzene		100-41-4	OSHA – STEL OSHA - TWA	125 ppm 100 ppm
Ethylene glycol monobutyl ether		111-76-2	OSHA - TWA	25 ppm
Xylene		1330-20-7	OSHA – STEL OSHA – TWA	150 ppm 100 ppm
Mineral Spirits		64742-47-8	OSHA - TWA	100 ppm
Naphthalene		91-20-3	OSHA – STEL OSHA – TWA	15 ppm 10 ppm
1,2,4 Trimethylbenzene		95-63-6	Not Established	

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Caution! Combustible liquid and vapor. Harmful or fatal if swallowed, can enter lungs and cause damage.

EYES: May cause moderate to severe eye irritation. Not expected to cause permanent damage if promptly rinsed from eyes.

SKIN: May cause skin irritation. Prolonged and/or repeated contact with the skin may cause irritation characterized by redness, cracking and blistering. May be absorbed in toxic amounts through the skin and cause systemic effects.

INHALATION: Inhalation of high concentrations of vapors may cause respiratory tract irritation and central nervous system depression. Symptoms include headache, weakness, dizziness, nausea and loss of coordination. Continued inhalation may result in unconsciousness or death. Reports have associated repeated and prolonged overexposure to solvents with permanent brain, nervous system, liver and kidney damage or may cause cardiac arrhythmia.

INGESTION: Swallowing may cause gastrointestinal disturbances such as nausea, vomiting, and diarrhea. Aspiration of this product into the lungs may cause chemical pneumonitis, which may be fatal.

Individuals with pre-existing disease in or a history of ailments involving the skin, eyes, respiratory tract, liver, kidney, or central nervous system are at a greater than normal risk of developing adverse effects when exposed to this material.

Ethyl benzene is classified by IRAC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals.

Naphthalene is classified by IRAC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals.

4. FIRSTAID MEASURES

EYE CONTACT: Immediately flush the eyes with lukewarm, gently flowing water for at least 20 minutes, while holding the eyelids open. Take care not to rinse contaminated water into the unaffected eye or face. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. **Call a poison control center or doctor for treatment advice.**

SKIN CONTACT: Wash affected areas immediately with non abrasive soap and lukewarm water for 15-20 minutes. Under running water, remove contaminated clothing, shoes, and leather goods (i.e. watchbands, belts). **Call a poison center or doctor for treatment advice.** Completely decontaminate clothing, shoes and leather goods before reuse or discard.

INHALATION: Move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. Do not allow victim to move about unnecessarily. Symptoms of pulmonary edema may be delayed up to 48 hours after exposure. **Call a poison control center or doctor for treatment advice.**

INGESTION: **Call a poison control center or doctor immediately for treatment advice.** Have victim rinse mouth thoroughly with water. **DO NOT INDUCE VOMITING.** Have victim drink 8-10 oz (240 – 300 ml) of water to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Repeat administration of water. **Quickly transport person to emergency care facility.**

NOTICE TO PHYSICIAN: Mucosal damage may contraindicate the use of gastric lavage. Pulmonary aspiration hazard if swallowed. Treat symptomatically.

5. FIRE FIGHTING MEASURES

FLASH POINT: 108F/42C

AUTOIGNITION TEMPERATURE: Not determined

FLAMMABLE LIMITS: (% by volume/air)

Lower Limit: Not determined

Upper Limit: Not determined

EXTINGUISHING MEDIA: Use dry chemical, carbon dioxide, or foam

FIRE FIGHTING PROCEDURES: As in any fire, wear complete fire service protective equipment, including full face MSHA/NIOSH approved self-contained breathing apparatus. Use water to cool fire exposed container/structure/protect personal. Do not put in contact with oxidizing or caustic materials.

FIRE AND EXPLOSION HAZARDS: Containers may explode if exposed to extreme heat. Eliminate source of ignition.

6. SPILL AND LEAK PROCEDURES

SMALL SPILL: Stop the flow of material. Absorb with non-flammable suitable absorbent such as sand or earth. Scoop/shovel absorbed material into container.

LARGE SPILL: Dike and contain spill. Pump to storage or salvage vessels. Contain run-off from fire control and dilute water. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities that a spill has occurred. Eliminate all sources of ignition. Ventilate area.

7. HANDLING AND STORAGE

HANDLING PROCEDURES: Avoid prolonged or repeated skin contact with the material. Avoid eye contact with the material. Avoid prolonged or repeated breathing. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Use this product with adequate ventilation.

STORAGE PROCEDURES: Do not store near heat, sparks, open flame or strong oxidizing agents. Do not store this material in open, unlabeled containers. Keep in a closed, labeled container within a cool, dry, ventilated area. Protect from physical damage. The retained product residue in empty containers can be dangerous.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide sufficient general/local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits and below flammable vapor concentrations. Supplementary local exhaust ventilation may be needed in poorly ventilated spaces.



PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION: Industrial safety glasses, side shields and as necessary face shields

HAND/SKIN PROTECTION: As required, chemical resistant, flexible-type gloves (neoprene, nitrile or equal) to prevent contact. Gloves should be rinsed and removed immediately after use. Wash hands after removing gloves. Wear chemical resistant garments if contact is unavoidable. Avoid skin contact.

RESPIRATORY PROTECTION: A NIOSH approved respirator should be selected on the basis of the form and concentration of the contaminant.

OTHER: Facilities utilizing this material should be equipped with an eyewash station and safety shower. Thoroughly clean shoes and wash contaminated clothes before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific Gravity (15° F): 0.790 – 0.800	Boiling Point: ... Not Determined.....
Vapor Pressure: (mm hg) Not Determined	Freezing Point: --Not Applicable-----
Vapour Density: Not Determined	Evaporation Rate: Not Determined
pH: Not Applicable	Solubility in water: None
Viscosity: Not Determined.....	Appearance and odor: Colorless to light yellow color with typical mineral spirit odor

10. STABILITY AND REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur

INCOMPATIBILITY: Strong oxidizers and reducers

HAZARDOUS DECOMPOSITION PRODUCT(S): CO₂, CO, oxides of nitrogen and other toxic organic compounds

11. TOXICOLOGICAL INFORMATION

No data available on the product as a whole.

Xylene: Laboratory animals exposed to high levels of xylene showed evidence of effects on the liver, kidneys, lungs, spleen and caused hearing loss. Rats exposed during pregnancy to xylene showed fetotoxic effects.

Naphthalene: Laboratory animals exposed to high levels of naphthalene showed evidence of red blood cell destruction with anemia, fever, jaundice and kidney and liver damage. Naphthalene caused an increased incidence of tumors in the nose in rats.

Ethylbenzene: Ethylbenzene is classified by IARC as possible carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

2-Butoxyethanol (CAS# 111-76-2): Laboratory studies on experimental animals indicate that exposure may cause red blood cell damage, and damage to the kidney and liver. These effects have not been observed in humans. Laboratory animal studies have reported adverse reproductive and developmental effects from over exposure to 2-butoxyethanol.

12. ECOLOGICAL INFORMATION

Product has not been tested for ecotoxicity.

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state and federal regulations.

14 TRANSPORTATION INFORMATION

Department of transportation reportable quantities	
Reportable Qty (LBS)	Hazardous Substance
1000	Ethyl Benzene
100	Xylene
10	Benzene
100	Naphthalene

DOT SHIPPING INFORMATION FOR GROUND INFORMATION ONLY:

DOT PROPER SHIPPING NAME: Combustible liquid, n.o.s. (contains petroleum distillates)

DOT HAZARDS CLASS: 3

PACKING GROUP: III

DOT CLASSIFICATION NUMBER: UN1993

15 REGULATORY INFORMATION



NFPA Rating:

WHMIS (Canadian) Classification: Class B, Division 3: Combustible Material
Class D, Division 2: Very Toxic Material



SARA TITLE III SECTION 313 CHEMICALS

Ethyl Benzene

Ethylene glycol monobutyl ether (skin)

Xylene

Naphthalene

WARNING: This product contains chemicals known to the state of California to cause cancer.

WARNING: This product contains a chemical, known to the state of California to cause birth defects or other reproductive harm.

Ultra low diesel additive: The sulfur content of this diesel fuel additive does not exceed 15 parts per million (ppm).

16 OTHER INFORMATION

Prepared by: Vulsay Industries Ltd. 35 Regan Road, Brampton, Ontario, L7A 1B2

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