MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHAMPION® eGuard® Ethanol Fuel Conditioner

Company Identification
Champion Brands, L.L.C., 1001 Golden Drive, Clinton, MO 64735
PHONE: 800-821-5693 WEBSITE: www.championbrands.com

CAS Registry Number Not Applicable
Synonyms None
Generic/Chemical Name Mixture
Product Type Fuel additive (petroleum distillates)
Preparation Date 03-10-2011
Transportation Emergency Response
CHEMTREC: (800) 424-9300
Product Information
Product Information and MSDS Requests: (800) 821-5693 and www.championbrands.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	% by weight
NJ Trade Secret 01154100-5246P	Mixture	40 - 50
Solvent naphtha, light aromatic	64742-94-5	35 - 45
Isopropyl alcohol	64-63-0	2.0 - 4.0
Diethanolamine	111-42-2	1.0 - 3.0
1,2,4-trimethylbenzene	95-63-6	<3.0
Xylene	1330-20-7	<1.0

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

- HIGHLY FLAMMABLE LIQUID AND VAPOR
- CAUSES SKIN AND EYE IRRITATION
- TOXIC IF INHALED
- ASPIRATION HAZARD – **DO NOT INDUCE VOMITING** – MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS
- MAY CAUSE DAMAGE TO KIDNEYS
- MAY DAMAGE FERTILITY OR THE UNBORN CHILD
- TOXIC TO AQUATIC ORGANISMS

IMMEDIATE HEALTH EFFECTS
Eye: Contact with the eyes causes irritation. Symptoms may include pain, tearing, reddening, swelling and impaired vision. If this material is heated, thermal burns may result from eye contact.
Skin: Contact with skin causes irritation. Skin contact may cause drying or defatting of the skin. Symptoms may include pain, itching, discoloration, swelling and blistering. Exposure to skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. If this material is heated, thermal burns may result from skin contact.
Ingestion: May be irritating to the mouth, throat, and stomach. Symptoms may include pain, nausea, vomiting and diarrhea

Inhalation: The vapor or fumes from this material may cause respiratory irritation. Symptoms of respiratory irritation may include coughing and difficulty breathing. If this material is heated, fumes may be unpleasant and produce nausea and irritation of the eye and upper respiratory tract. Breathing this material and concentrations above the recommended exposure limits may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors, convulsions, loss of consciousness, coma or death.

DELAYED OR CHRONIC HEALTH EFFECTS:
Cancer: May cause cancer in laboratory animals, but the available information is inadequate to determine if this material can cause cancer in humans. None of the components in this material are listed as carcinogens by IARC, NTP, ACGIH or OSHA.
Target Organs: Repeated skin contact with this material may cause damage to the following organ(s) based on animal data: Kidney. See section 11 for additional information. Risk depends on duration and level of exposure.

4. FIRST AID MEASURES

Eye: Flush eyes with water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing and continue flushing for at least 15 minutes. Get medical attention if irritation persists. If heated material should splash into the eyes, flush eyes immediately with fresh water for 15 minutes while holding the eyelids open. Remove contact lenses, if worn. Get immediate medical attention.

Skin: Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse. If the hot material gets on skin, quickly cool in water. See a doctor for extensive burns. Do not try to peel the solidified material from the skin, or use solvents or thinners to dissolve it. The use of vegetable oil or mineral oil is recommended for removal of dry product from the skin.

Ingestion: If swallowed, get medical attention immediately. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person.

Inhalation: Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

5. FIRE FIGHTING MEASURES

FIRE CLASSIFICATION:
OSHA Classification (29 CFR 1910.1200): Flammable liquid

NFPA RATINGS: Health: 1 Flammability: 3 Reactivity: 0

FLAMMABLE PROPERTIES:
Flashpoint: (Pensky-Martens Closed Cup) 93°F (33.9°C)
Autoignition: NDA
Flammability (Explosive) Limits (% by volume in air): Lower: NDA Upper: NDA

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

PROTECTION OF FIRE FIGHTERS:
Fire Fighting Instructions: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Vapors may travel long distances along the floor and flash back if ignited.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Nitrogen

6. ACCIDENTAL RELEASE INFORMATION

Precautionary Measures: Keep out of the reach of children.
Protective Measures: Eliminate all sources of ignition in vicinity of spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator.
Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.
Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

7. HANDLING AND STORAGE

Precautionary Measures: Do not taste or swallow. Do not breathe vapor or fumes from heated material. Liquid evaporates and forms vapor which can catch fire and burn with explosive force. Invisible vapor spreads easily and can cause flash fires if ignited by spark or flame. Fire hazard is greater as liquid temperature rises above 85°F. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not breathe vapor or fumes.
General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.
Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating an accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.
General Storage Information: DO NOT USE OR STORE near heat, sparks or open flame. USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed with not in use.
Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly

8. EXPOSURE CONTROL/PERSONAL PROTECTIVE EQUIPMENT

GENERAL CONSIDERATIONS:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:
Use process enclosures, local exhaust ventilation or other engineering controls to limit airborne levels below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: Where splashing is possible or if this material is heated, wear chemical splash goggles, safety glasses or a face shield. Where fumes may ignite, wear protective eyewear or face shields.

Skin Protection: Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Suggested materials for protective gloves include: nitrile rubber, silver shield, viton. If this material is heated, wear insulated clothing to prevent skin contact if engineering controls or work practices are not adequate to prevent skin contact.

Respiratory Protection: Determine if airborne concentrations are below the recommended exposure limits. If not, wear an approved respirator that provides adequate protection from measured concentrations of this material, such as: air-purifying respirator for organic vapors. Use positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component	Agency	TWA	STEL	Ceiling	Notation
1,2,4-Trimethylbenzene	ACGIH_TLV	25 ppm			
Xylene	ACGIH_TLV	100 ppm	150 ppm		
Xylene	OSHA_PEL	100 ppm	150 ppm		

9. PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Appearance and Odor: Light amber liquid with petroleum odor
Flashpoint: (Pensky-Martens closed cup): 93°F (33.9°C)
Vapor Pressure: NDA
Vapor Density (Air = 1): NDA
Density: >316°C (>500°F)
Viscosity @ 20°C: 55.9 cSt
Viscosity @ 40°C: 23.6 cSt

10. STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to Avoid: Open flames, sparks, temperatures above the material flash point.

Incompatibility With Other Materials: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products: Smoke, Carbon Monoxide, Aldehydes, Hydrogen Sulfide. Elements may be formed: nitrogen, sulfur, molybdenum, boron, and carbon.

Hazardous Polymerization: Hazardous polymerization will not occur.

11. TOXILOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS

Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials or product components.

Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials or product components.

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for similar materials or product components.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components

ADDITIONAL TOXICOLOGY INFORMATION:

COMPONENT: Solvent Naphtha, Light Aromatic (CAS 64742-94-5). GENETIC TOXICITY: No evidence of genetic toxicity was observed in the following tests: Salmonella typhimurium reverse mutation assay (Ames test), in vitro Chinese Hamster Ovary (CHO) cell HGPRT mutation assay, in vitro Chinese Hamster Ovary(CHO) cell chromosomal aberration assay, in vitro Chinese Hamster Ovary (CHO) cell sister chromatid exchange assay, and in vivo rat bone marrow chromosome aberration assay. SUBCHRONIC TOXICITY: In a 13-week rat inhalation study using dose levels of 0, 100, 500, and 1500 ppm for 6 hours/day, 5days/week, no target organ toxicity including neurotoxicity was observed at any dose level. Slight general systemic toxicity (decreased body weight gain) was observed at 1500 ppm. DEVELOPMENTAL TOXICITY: In a mouse inhalation study using dose levels of 0, 100, 500, and 1500 ppm for 6 hours/day on gestation days 6-15, no signs of maternal toxicity or developmental toxicity were observed at 100 ppm. At 500 ppm, maternal toxicity (decreased body weight gain) and developmental toxicity (decreased fetalbody weight) were observed. Severe maternal toxicity (44% mortality, decreased body weight gain, clinical signs of toxicity) and developmental toxicity (decreased number of live fetuses per litter, increased postimplantation losses per dam, decreased fetal body weights, delayed ossification, cleft palate) were observed at 1500 ppm. In a rat inhalation study using dose levels of 600, 1000, and 2000 mg/m3 for 24 hours/day on gestation days 7-15, signs of maternal toxicity (decreased body weight gain) were observed at all dose levels. At 600 mg/m3, no signs of fetal or developmental toxicity were observed. Signs of fetal toxicity (decreased male fetal body weight) and developmental toxicity (delayed ossification) were observed at 1000and 2000 mg/m3. REPRODUCTIVE TOXICITY: In a rat 3-generation inhalation study using dose levels of 0, 100, 500, and 1500 ppm 6 hours/day, 5 days/week, no signs of general systemic or reproductive toxicity were observed at 100 ppm. At 500 ppm, slight parental toxicity (decreased body weight gain) and postnatal toxicity (decreased pup body weight) were observed, but reproductive parameters were not affected. Severe parental toxicity (mortality, decreased bodyweight gain, clinical signs of toxicity) and postnatal toxicity (decreased pup body weight) were observed at 1500 ppm, but reproductive parameters were not affected.

This product contains xylene.
ACUTE TOXICITY: The primary effects of exposure to xylene in animals and humans are on the central nervous system. In addition, in some individuals, xylene exposure can sensitize cardiac tissue to epinephrine which may precipitate fatal ventricular fibrillation.
DEVELOPMENTAL TOXICITY: Xylene has been reported to cause developmental toxicity in rats and mice exposed by inhalation during pregnancy. The effects noted consisted of delayed development and minor skeletal variations. In addition, when pregnant mice were exposed by ingestion to a level that killed nearly one-third of the test group, lethality (resorptions) and malformations (primarily cleft palate) occurred. Since xylene can cross the placenta, it may be appropriate to prevent exposure during pregnancy. GENETIC TOXICITY/CARCINOGENICITY: Xylene was not genotoxic in several mutagenicity testing assays including the Ames test. In a cancer study sponsored by the National Toxicology Program (NTP),technical grade xylene gave no evidence of carcinogenicity in rats or mice dosed daily for two years. HEARING: Mixed xylenes have been shown to cause measurable hearing loss in rats exposed to 800 ppm in the air for 14 hours per day for six weeks. Exposure to 1450 ppm xylene for 8 hours ca used hearing loss while exposure to 1700 ppm for 4 hours did not. Although no information is available for lower concentrations, other chemicals that cause hearing loss in rats at relatively high concentrations do not cause hearing loss in rats at low oncentrations. Worker exposure to xylenes at the permissible exposure limit (100 ppm, time-weighted average) is not expected to cause hearing loss.

12. ECOLOGICAL INFORMATION

ECOTOXICITY
This material is expected to be toxic to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material.
ENVIRONMENTAL FATE
Ready Biodegradability:
This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

13. DISPOSAL INFORMATION

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires

14. TRANSPORTATION INFORMATION

The description shown may not apply to all shipping situation. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Name: CEG 0822
DOT Hazard Class: 3 (Flammable Liquid)
DOT Identification Number: UN1993
DOT Packing Group: III

IMO/IMDG Shipping Name: CEG 0822.
IMO/IMDG Hazard Class: 3 (Flammable)
IMO/IMDG Identification Number: UN1993
IMO/IMDG Packing Group: III

15. REGULATORY INFORMATION

EPCRA 311/312 CATEGORIES:

1. Immediate (acute) health effects:	YES
2. Delayed (chronic) health effects:	YES
3. Fire hazard:	YES
4. Sudden release of pressure hazard:	NO
5. Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

01-1=	IARC Group 1	03 =	EPCRA 313
01-2A=	IARC Group 2A	04 =	CA Proposition 65
01-2B=	IARC Group 2B	05 =	MA RTK
02 =	NTP Carcinogen	06 =	NJ RTK
06 =	OSHA Carcinogen	19 =	DOT Marine Pollutant
09 =	TSCA 12(b)	20 =	PA RTK

The following components of this material are found on the regulatory lists indicated:

1,2,4-trimethylbenzene	15, 17, 18, 20
Xylene	15, 17, 18, 20
Diethanolamine	03, 05, 06, 07

CERCLA REPORTABLE QUANTITIES (RQ)/EPCRA 302 THRESHOLD PLANNING QUANTITIES (TPQ):

Xylene	Component RQ: 100 lbs	Component TPQ: None	Product RQ: 8338 lbs

CHEMICAL INVENTORIES:

CANADA: All the components of this material are on the Canadian DSL or have been notified under the new Substance Notification Regulations, but have not yet been published in the Canadian Gazette.
UNITED STATES: All of the components of this material are on the Toxic Substances Control Act (TSCA) Chemical Inventory

WHMIS CLASSIFICATION:
Class B, Division 3: Flammable liquids
Class D, Division 2, Subdivision B: Toxic material – skin or eye irritation

16. OTHER INFORMATION

REVISION STATEMENT: Revision updates many sections and the MSDS should be read in its entirety. MSDS Preparation date 03-10-2011

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV	-	Threshold Limit Value	TWA	-	Time Weighted Average
STEL	-	Short-term Exposure Limit	PEL	-	Permissible Exposure Limit
CHA	-	Champion LLC	CAS	-	Chemical Abstract Service Number
NDA	-	No Data Available	NA	-	Not Applicable
<=	-	Less Than or Equal To	>=	-	Greater Than or Equal To

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by Champion LLC, 1001 Golden Drive, Clinton, Missouri 64735.