MATERIAL SAFETY DATA SHEET

Revision Date: 08/19/2011
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	FutureSol® CME, Technical
Product Identification Number(s)	70144-C
Manufacturer/Supplier	FutureFuel Chemical Company Gap Road 2800 Batesville, AR 72503 US
MSDS Prepared by	Product Safety and Health
Chemical Name	Fatty Acid, canola oil, methyl esters
Synonym(s)	Fatty Acid, canola oil, methyl esters
Molecular Formula	not applicable
Molecular Weight	not applicable
Product Use	solvent
OSHA Status	nonhazardous

For product information telephone FutureFuel Chemical Company 870-698-3000, 8:00 am - 4:00 pm, Central.

Emergency telephone CHEMTREC: US 800-424-9300, international 703-527-3887

2. COMPOSITION INFORMATION ON INGREDIENTS

(Typical composition is given, and it may vary. A certificate of analysis can be provided, if available.)

Weight %	Component	CAS Registry No.
100%	Fatty acid, canola-oil, methyl esters	129828-16-6

3. HAZARDS IDENTIFICATION

WARNING!
AT ELEVATED TEMPERATURES, VAPOR MAY CAUSE IRRITATION OF EYES AND RESPIRATORY TRACT
CAN DECOMPOSE AT ELEVATED TEMPERATURES

HMIS® Hazard Ratings: Health - 1, Flammability -1, Chemical Reactivity - 0

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

4. FIRST-AID MEASURES

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
Eyes: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention. In case of irritation from airborne exposure, move to fresh air. Get medical attention if symptoms persist.

Skin: Wash off with soap and water. Get medical attention if symptoms occur.
Ingestion: Seek medical advice.

5. FIRE FIGHTING MEASURES

Extinguishing Media: water spray, carbon dioxide, dry chemical, foam
Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. Use water spray to keep fire-exposed containers cool.
Hazardous Combustion Products: carbon dioxide, carbon monoxide
Unusual Fire and Explosion Hazards: none

6. ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.
For Large Spills: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

7. HANDLING AND STORAGE

Personal Precautionary Measures: Avoid breathing mist or vapor from heated material. Avoid contact with eyes. Use only with adequate ventilation. Wash thoroughly after handling.
Prevention of Fire and Explosion: Exercise caution if heating, especially in a closed container. Keep from contact with oxidizing materials.
Storage: Keep container closed. Store in a cool place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Country specific exposure limits have not been established or are not applicable unless listed below.

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances; such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.
Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.
Eye Protection: It is a good industrial hygiene practice to minimize eye contact.
Skin Protection: It is a good industrial hygiene practice to minimize skin contact.
Recommended Decontamination Facilities: eye bath, washing facilities

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: liquid

Color: brown
Color: green
Odor: mild
Specific Gravity: 0.876 (25 ℃)
Boiling Point: > 200 ℃
Solubility in Water: negligible
Flash Point: >130 ℃ (closed cup)
Thermal Decomposition Temperature: 347 ℃ (DSC)

10. STABILITY AND REACTIVITY

Stability:	Normally stable. Material can decompose at elevated temperatures.
Incompatibility:	Material reacts with strong oxidizing agents.
Hazardous Decomposition Products:	carbon monoxide, carbon dioxide
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.

Data for a structurally similar material has been used to estimate the toxicological properties.

Oral LD-50:(rat)	6,873 mg/kg
Dermal LD-50: (rat)	> 2,000 mg/kg
Skin Irritation (rabbit)	none
Eye Irritation (rabbit)	slight
Skin Sensitization: (guinea pig)	none

12. ECOLOGICAL INFORMATION

Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.

This material has not been tested for environmental effects.

13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

DOT (USA)

Class not regulated

Sea - IMDG (International Maritime Dangerous Goods)

Class not regulated

Air - ICAO (International Civil Aviation Organization)

Class not regulated

15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
WHMIS (Canada) Status: noncontrolled

SARA 311-312 Hazard Classification(s):
immediate (acute) health hazard

SARA 313: none, unless listed below

Carcinogenicity Classification (components present at 0.1% or more): none, unless listed below

TSCA (US Toxic Substances Control Act): All components of this product are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): All components of this product are listed on the DSL. Any impurities present in this product are exempt from listing.

EINECS (European Inventory of Existing Commercial Chemical Substances): One or more components or reactants of this product are not listed on EINECS. In the European Union, its use is restricted to research and development purposes only.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): One or more components of this product are not listed on AICS.In Australia, its use is restricted to research and development purposes only.

MITI (Japanese Handbook of Existing and New Chemical Substances): One or more components or reactants of this product are not listed in the Handbook. In Japan, its use is restricted to research and development purposes only.

ECL (Korean Toxic Substances Control Act): One or more components of this product are not listed on the Korean inventory. In Korea, its use is restricted to research and development purposes only.

Philippines Inventory (PICCS) : One or more components of this product are not listed on the Philippine inventory.

Inventory of Existing Chemical Substances in China: All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

16. OTHER INFORMATION

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information. Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment.

Highlighted areas indicate new or changed information.