

Safety Data Sheet Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Ester solvent EEP
Product Use Description : Solvent.

Manufacturer or supplier's details

Company : Famis Inc
Address : 5689 NW 35th court
Miami FL, 33142 USA

Emergency telephone number:

Transport North America: CHEMTREC 800.424.9300

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 3

GHS Label element



Hazard pictograms :
Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.

Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static



Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

discharge.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Carcinogenicity:

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Emergency Overview

Appearance	liquid
Colour	colourless
Odour	ester-like
Hazard Summary	No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance



Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

Hazardous components

CAS-No.	Chemical Name	Concentration (%)
763-69-9	Ethyl 3-ethoxypropionate	95 - 100

Synonyms : Tiercon Thinner T,

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known



Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

- Specific extinguishing methods : Use a water spray to cool fully closed containers.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

NFPA Flammable and Combustible Liquids Classification: Combustible Liquid Class II

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid formation of aerosol.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pres-

Safety Data Sheet Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

Conditions for safe storage : sure.
Dispose of rinse water in accordance with local and national regulations.
: No smoking.
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Skin and body protection : impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : colourless

Odour : ester-like

Odour Threshold : 0.02 ppm



Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

pH	: No data available
Freezing Point (Melting point/freezing point)	: -50 °C (-58 °F)
Boiling Point (Boiling point/boiling range)	: 163 - 172 °C (325 - 342 °F)
Flash point	: 57 - 59 °C (135 - 138 °F)
Evaporation rate	: 0.12
Flammability (solid, gas)	: No data available
Burning rate	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: 1.0 %(V)
Vapour pressure	: 0.34 - 2.3 hPa
Relative vapour density	: 5.0AIR=1
Relative density	: 0.941 - 0.951 @ 20 °C (68 °F)
Density	: 7.849 lb/gal
Bulk density	: No data available
Solubility(ies)	
Water solubility	: 29 - 54.1 g/l
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: 1.35
Auto-ignition temperature	: 377 - 426 °C
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: 1.2 - 1.3 mPa.s @ 25 °C (77 °F)
Viscosity, kinematic	: 1.328 mm ² /s @ 20 °C (68 °F)

Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

SECTION 10. STABILITY AND REACTIVITY

- Reactivity : No dangerous reaction known under conditions of normal use.
- Chemical stability : Stable under normal conditions.
- Possibility of hazardous reactions : Vapours may form explosive mixture with air.
- Conditions to avoid : Heat, flames and sparks.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

- Acute oral toxicity : Acute toxicity estimate : 5,000 mg/kg
Method: Calculation method
- Acute inhalation toxicity : Remarks: presumed non-toxic
- Acute dermal toxicity : Acute toxicity estimate : 4,080 mg/kg
Method: Calculation method

Components:

763-69-9:

- Acute oral toxicity : LD50 (rat, male): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes
- Acute inhalation toxicity : LC50 (rat): > 998 ppm
Exposure time: 6 h
Method: OECD Test Guideline 403
Symptoms: weight gain
GLP: No data available
Assessment: The component/mixture is low toxic after short term inhalation.
- Acute dermal toxicity : LD50 (rabbit, male): 4,080 mg/kg
Method: OECD Test Guideline 402
Symptoms: no symptoms
GLP: no



Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

Skin corrosion/irritation

Product:

Result: presumed non-toxic

Components:

763-69-9:

Species: rabbit

Exposure time: 4 h

Method: OECD Test Guideline 404

Result: Mild skin irritation

GLP: no

Serious eye damage/eye irritation

Product:

Result: presumed non-toxic

Components:

763-69-9:

Species: rabbit

Result: Mild eye irritation

Method: OECD Test Guideline 405

GLP: no

Respiratory or skin sensitisation

Components:

763-69-9:

Species: guinea pig

Method: OECD Test Guideline 406

Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Product:

Germ cell mutagenicity- Assessment : mutagenicity classification is not possible

Components:

763-69-9:

Genotoxicity in vitro : Test Type: Mammalian cell gene mutation assay
Test species: Chinese hamster ovary (CHO)
Metabolic activation: with and without metabolic activation

Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

Method: OECD Test Guideline 476

Result: negative

GLP: yes

: Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

: Test Type: Chromosome aberration test in vitro
Test species: Chinese hamster ovary (CHO)
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Germ cell mutagenicity-Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Product:

Carcinogenicity - Assessment : carcinogenicity classification is not possible

Components:

763-69-9:

Remarks: This information is not available.

Carcinogenicity - Assessment : Carcinogenicity classification not possible from current data.

Reproductive toxicity

Product:

Reproductive toxicity - Assessment : reproduction classification is not possible
teratogenicity classification is not possible

Components:

763-69-9:

Effects on fertility : Remarks: No data available

Effects on foetal development : Species: rat
Application Route: Inhalation



Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

Dose: 125, 250, 500 and 1000 ppm
Duration of Single Treatment: 10 d
General Toxicity Maternal: NOAEC: 250 ppm
Teratogenicity: NOAEC: 1,000 ppm
Embryo-foetal toxicity.: NOAEC: 500 ppm
Method: OECD Test Guideline 414
Result: No teratogenic effects.
GLP: No data available

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments.

STOT - single exposure

Product: No data available

Components:

763-69-9: No data available

STOT - repeated exposure

Product: No data available

Components:

763-69-9: No data available

Repeated dose toxicity

Components:

763-69-9:

Species: rat, male and female
NOAEL: 1,000 mg/kg
Application Route: Oral
Exposure time: 28 d
Dose: 100 or 1000 mg/kg/day
Method: OECD Test Guideline 407
GLP: yes

Species: rat, male and female
NOAEL: 500
Application Route: Inhalation
Exposure time: 13 wk
Number of exposures: 6 h/d, 5 d/wk
Dose: 250, 500 or 1000 ppm

Aspiration toxicity

Product:

No aspiration toxicity classification

Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

Further information

Product:

Remarks: Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish :
Remarks: presumed non-toxic

Toxicity to daphnia and
other aquatic inverte-
brates :
Remarks: presumed non-toxic

Toxicity to algae :
Remarks: presumed non-toxic

Components:

763-69-9:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 55.3
mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and
other aquatic inverte-
brates : EC50 (Daphnia magna (Water flea)): 479.7 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)):
> 114.86 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

Toxicity to bacteria : IC50: > 5,000 mg/l
Exposure time: 16 h
Test Type: Growth inhibition



Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

GLP:

Persistence and degradability

Components:

763-69-9:

Biodegradability : Primary biodegradation
Inoculum: activated sludge
Concentration: 34.8 mg/l
Result: Readily biodegradable.
Biodegradation: 99.8 %
Testing period: 5 d
Exposure time: 28 d
Method: OECD Test Guideline 301B
Remarks: The 10 day time window criterion is not fulfilled.

Chemical Oxygen Demand (COD) : 0.002 mg/g

Theoretical Oxygen Demand (ThOD) : 0.00197 mg/g

Bioaccumulative potential

Components:

763-69-9:

Partition coefficient: n-octanol/water : log Pow: 1.35

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life.



Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

IATA (International Air Transport Association): UN3272, ESTERS, N.O.S., (ETHYL 3-ETHOXYPROPIONATE), 3, III, Flash Point: 57 - 59 °C (135 - 138 °F)

IMDG (International Maritime Dangerous Goods): UN3272, ESTERS, N.O.S., (ETHYL 3-ETHOXYPROPIONATE), 3, III

DOT (Department of Transportation): UN3272, ESTERS, N.O.S., (ETHYL 3-ETHOXYPROPIONATE), 3, III

Special Notes: : The flash point for this material is greater than 100 F (38 C). Therefore, in accordance with 49 CFR 173.150(f) non-bulk containers (<450L or <119 gallon capacity) of this material may be shipped as non-regulated when transported solely by land, as long as the material is not a hazardous waste, a marine pollutant, or specifically listed as a hazardous substance.

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Combustible Liquid

WHMIS Classification : B3: Combustible Liquid

EPCRA - Emergency Planning and Community Right-to-Know Act



Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Formaldehyde	50-00-0	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Formaldehyde	50-00-0	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : Fire Hazard

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

50-00-0	Formaldehyde	0.02 %
140-88-5	Ethyl acrylate	0.0015 %

The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

50-00-0	Formaldehyde	0.02 %
---------	--------------	--------

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

50-00-0	Formaldehyde	0.02 %
140-88-5	Ethyl acrylate	0.0015 %

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

50-00-0	Formaldehyde	0.02 %
---------	--------------	--------

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

50-00-0	Formaldehyde	0.02 %
---------	--------------	--------

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations



Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

Massachusetts Right To Know

50-00-0	Formaldehyde	0 - 0.1 %
140-88-5	Ethyl acrylate	0 - 0.1 %

Pennsylvania Right To Know

763-69-9	Ethyl 3-ethoxypropionate	90 - 100 %
50-00-0	Formaldehyde	0 - 0.1 %

New Jersey Right To Know

763-69-9	Ethyl 3-ethoxypropionate	90 - 100 %
----------	--------------------------	------------

California Prop 65

	WARNING! This product contains a chemical known to the State of California to cause cancer.	
50-00-0	Formaldehyde	
140-88-5	Ethyl acrylate	

The components of this product are reported in the following inventories:

1907/2006 (EU)	:	n (Negative listing) (Not in compliance with the inventory)
Switzerland. New notified substances and declared preparations	:	y (positive listing) (The formulation contains substances listed on the Swiss Inventory)
United States TSCA Inventory	:	y (positive listing) (On TSCA Inventory)
Canadian Domestic Substances List (DSL)	:	y (positive listing) (All components of this product are on the Canadian DSL.)
Australia Inventory of Chemical Substances (AICS)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
New Zealand. Inventory of Chemical Substances	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Japan. ENCS - Existing and New Chemical Substances Inventory	:	y (positive listing) (On the inventory, or in compliance)

Safety Data Sheet Ester solvent EEP

Version 1.1

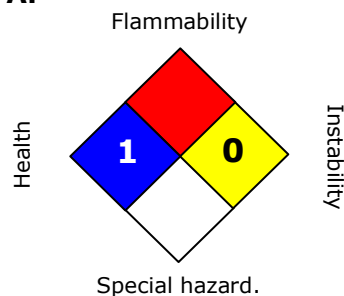
Revision Date: 11/21/2014

		with the inventory)
Japan. ISHL - Inventory of Chemical Substances (METI)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Korea. Korean Existing Chemicals Inventory (KECI)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
China. Inventory of Existing Chemical Substances in China (IECSC)	:	y (positive listing) (On the inventory, or in compliance with the inventory)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	1
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 =Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to



Safety Data Sheet

Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Legacy MSDS: R0183780

Material number:

16072487, 16057063, 16057062, 16030490, 16029017, 614773, 597243, 596628, 55105, 70549, 506726, 20907, 554328, 554179, 103408, 70215, 53731, 87314, 69117, 502590, 20920, 20919, 20918, 20917, 20916

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System



Safety Data Sheet
Ester solvent EEP

Version 1.1

Revision Date: 11/21/2014

LC50	Lethal Concentration 50%
------	--------------------------