

Version 1.9

Revision Date: 04/08/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Methanol
Solvent., Fuel, Animal Feedstock

Manufacturer or supplier's details

Company Address : Famis Inc 5689 NW 35th ct Miami FL, 33142 United States of America

Emergency telephone number:

Transport North America: CHEMTREC 800.424.9300

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	: Category 2
Acute toxicity (Oral) Acute toxicity (Inhalation)	: Category 3 : Category 3
Acute toxicity (Dermal) Specific target organ tox- icity - single exposure	: Category 3 : Category 1 (Eyes, Central nervous system)
GHS Label element Hazard pictograms	

Signal word

: Danger

Hazard statements

: H225 Highly flammable liquid and vapour.



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Carcinogenicity:

IARC

No component of this product present at levels greater



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	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 antic- ipated carcinogen by NTP.

Emergency Overview

Appearance	liquid
Colour	colourless, clear
Odour	mild, alcohol-like
Hazard Summary	No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Pure substance

Hazardous components

CAS-No.	Chemical Name	Concentration (%)
67-56-1	90 - 100	
Molecular form	ula : C-H4-O	

Synonyms : Methyl alcohol,

SECTION 4. FIRST AID MEASURES

General advice	 Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in atten- dance. Do not leave the victim unattended.
If inhaled	: If unconscious place in recovery position and seek



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	medical advice. If symptoms persist, call a physician. Oxygen or artificial respiration if needed.
In case of skin contact	 If on skin, rinse well with water. If on clothes, remove clothes. If skin irritation persists, call a physician.
In case of eye contact	 Immediately flush eyes for at least 15 minutes. Get medical attention. 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. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Alcohol-resistant foam Water spray Dry chemical Carbon dioxide (CO2)
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	: Carbon oxides toxic fumes
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.



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Special protective equip- ment for firefighters	: Wear self-contained breathing apparatus for firefight- ing if necessary.

NFPA Flammable and Combustible Liquids Classification:

Flammable Liquid Class IB

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Ensure adequate ventilation. 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 precau- tions	:	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 con- tainer for disposal according to local / national regula- tions (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapours/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static dis- charges. Provide sufficient air exchange and/or exhaust in work rooms. Container may be opened only under exhaust ventila- tion hood. Open drum carefully as content may be under pres- sure. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe sto- rage	:	No smoking. Keep container tightly closed in a dry and well- ventilated place.



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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

CAS-No.	Components	Value type (Form of exposure)	Control parame- ters / Permissi- ble concentra- tion	Basis
67-56-1	Methanol	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m3	NIOSH REL
		ST	250 ppm 325 mg/m3	NIOSH REL
		TWA	200 ppm 260 mg/m3	OSHA Z-1
		STEL	250 ppm 325 mg/m3	OSHA PO
		TWA	200 ppm 260 mg/m3	OSHA PO

Components with workplace control parameters

Biological occupational exposure limits

Components	CAS-No.	Control parame- ters	Biological specimen		Permissi- ble con- centration	Basis
Methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after expo- sure ceases)	15 mg/l	ACGIH BEI

Personal protective equipment

Respiratory protection

: No personal respiratory protective equipment normally required. In the case of vapour formation use a respirator with an approved filter.

Hand protection



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Remarks	: The suitability for a specific workplace should be dis- cussed 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	: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: colourless, clear
Odour	: mild, alcohol-like
Odour Threshold	: 4.2 - 8940 ppm
pH Freezing Point (Melting point/freezing point)	: No data available : -97.8 °C (-144.0 °F)
Boiling Point (Boiling point/boiling range)	: 64 °C (147 °F)
Flash point	: 11 °C (52 °F)
Evaporation rate	: 5.9
Flammability (solid, gas)	n-Butyl Acetate : No data available
Burning rate	: No data available
Upper explosion limit	: 36.5 %(V)
Lower explosion limit	: 6 %(V)
Vapour pressure	: 96 mmHg @ 20 °C (68 °F)



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Relative vapour density	: 1.01 @ 15 - 20 °C (59 - 68 °F) AIR=1
Relative density	: 0.791 - 0.793Reference substance: (water = 1)
Density	: No data available
Bulk density	: No data available
Solubility(ies) Water solubility Solubility in other sol- vents	: completely soluble : soluble Solvent: Benzene
	soluble Solvent: Alcohol
	soluble Solvent: Chloroform
	soluble Solvent: Acetone
	soluble Solvent: Ether
Partition coefficient: n- octanol/water	: log Pow: -0.820.66
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability Possibility of hazardous reactions	Stable under normal conditions.No hazards to be specially mentioned.
Conditions to avoid	: Heat, flames and sparks.



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Incompatible materials	: Strong bases strong mineral acids strong organic acids strong oxidizing agents halogenated hydrocarbons Aluminium Lead Copper alloys Zinc magnesium
Hazardous decomposition products	: carbon dioxide and carbon monoxide Formaldehyde formic acid toxic fumes

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Components:

67-56-1: Acute oral toxicity	: LD50 (rat): 100 mg/kg Assessment: The component/mixture is toxic after single ingestion.
Acute inhalation toxicity	: LC50 (rat): 5 mg/l Assessment: The component/mixture is toxic after short term inhalation.
Acute dermal toxicity	: LD50 (rabbit): 300 mg/kg Assessment: The component/mixture is toxic after single contact with skin.

Skin corrosion/irritation

Components:

67-56-1: Species: rabbit Result: No skin irritation

Serious eye damage/eye irritation

Components:

67-56-1: Species: rabbit



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Result: No eye irritation

Respiratory or skin sensitisation

Components:

67-56-1: Test Type: Maximisation Test (GPMT) Species: guinea pig Method: OECD Test Guideline 406 Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components: 67-56-1: Genotoxicity in vitro	: Test Type: DNA damage and/or repair Metabolic activation: with and without metabolic acti- vation Result: Ambiguous
	 Test Type: In vivo micronucleus test Test species: mouse (male and female) Cell type: Bone marrow Application Route: Intraperitoneal Exposure time: Single Dose: 0, 1920, 3200, 4480 mg/kg Result: negative Tests on bacterial or mammalian cell cultures did not
Germ cell mutagenicity- Assessment	show mutagenic effects.
Carcinogenicity Components: 67-56-1: Carcinogenicity - As- sessment	: Not classifiable as a human carcinogen.
Reproductive toxicity	
Components: 67-56-1: Effects on fertility	: Test Type: Two-generation study Species: rat, male and female Application Route: Inhalation Dose: 0, 0.013, 0.13, 1.3 mg/L Duration of Single Treatment: 20 h General Toxicity - Parent: NOAEC: 1.3 mg/l General Toxicity F1: NOAEC: 0.13 mg/l



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	Fertility: NOAEC: 1.3 mg/l	

	Tertifity. NOALC. 1.5 Hig/1
	Symptoms: Effects on postnatal development.
	Result: Animal testing did not show any effects on fertility.
Reproductive toxicity -	: Fertility classification not possible from current data.
Assessment	Embryotoxicity classification not possible from current data.

STOT - single exposure

Product: No data available

Components: 67-56-1:

Exposure routes:	Target Organs:	Assessment:	Remarks:
	Eyes, Central nerv- ous system	Causes damage to organs., The sub- stance or mixture is classified as specific target organ tox- icant, single expo- sure, category 1.	

STOT - repeated exposure

Product: No data available

Components:

67-56-1:No data available

Repeated dose toxicity

Components:

67-56-1:

Species: mouse, male and female NOAEL: 1.3 mg/l Application Route: Inhalation Exposure time: 12 mths Number of exposures: Continuous Dose: 0, 0.013, 0.13, 1.3 mg/L

Aspiration toxicity

Product:

No aspiration toxicity classification

Further information

Product:



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Remarks: Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

<u>Components:</u> 67-56-1:	
Toxicity to fish	 LC50 (Lepomis macrochirus (Bluegill sunfish)): 15,400 mg/l Exposure time: 96 h Test Type: flow-through test
Toxicity to daphnia and other aquatic inverte-brates	: EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 48 h Test Type: static test
Toxicity to algae	: EC50 (Scenedesmus capricornutum (fresh water al- gae)): 22,000 mg/l End point: Growth rate Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 201
Toxicity to bacteria	 IC50 (activated sludge): > 1,000 mg/l End point: Growth rate Exposure time: 3 h Test Type: Static Method: OECD Test Guideline 209

Persistence and degradability

<u>Components:</u> 67-56-1:	
Biodegradability	: aerobic Result: Readily biodegradable. Biodegradation: 72 % Remarks: Readily biodegradable
Biochemical Oxygen De- mand (BOD)	: 600 - 1,120 mg/g
Chemical Oxygen De- mand (COD)	: 1,420 mg/g
BOD/COD	: BOD: 600 - 1120COD: 1420



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Stability in water :	Hydrolysis: 91 % at19 °C(72 h) Remarks: Hydrolyses on contact with water. Hydrolyses readily.
Bioaccumulative potential	
Components: 67-56-1: Bioaccumulation :	Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): 1.0 Exposure time: 72 d Temperature: 20 °C Concentration: 5 mg/l Remarks: This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Partition coefficient: n- : octanol/water	log Pow: -0.77
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 in- : formation	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal	methods
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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 reduc- tion,



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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): UN1230, METHANOL, 3 (6.1), II, Flash Point:11 °C(52 °F)

IMDG (International Maritime Dangerous Goods): UN1230, METHANOL, 3, (6.1), II

DOT (Department of Transportation): UN1230, Methanol, 3, II

SECTION 15. REGULATORY INFORMATION

OSHA Hazards	: Flammable liquid, Toxic by ingestion, Toxic by skin absorption
WHMIS Classification	: B2: Flammable liquid D1B: Toxic Material Causing Immediate and Serious Toxic Effects

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RO (lbs)	Calculated product RO (lbs)
		RQ (IDS)	KŲ (IDS)
Methanol	67-56-1	5000	5000

SARA 304 Extremely Hazardous Substances Reportable Quantity				
This material does not co	ontain any components with a section 304 EHS RQ.			
SARA 311/312	: Fire Hazard			
Hazards	Acute Health Hazard			
SARA 302	: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.			
SARA 313	: The following components are subject to reporting levels established by SARA Title III, Section 313:			



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	67-56-1	Methanol	100 %
Clean Air Act			
The following chemical(s)) are listed as HA	AP under the U.S. Cle	an Air Act, Section 12
(40 CFR 61): 67-56-1	Methanol		100 %
This product does not con Section 112(r) for Accide The following chemical(s) Intermediate or Final VO	ntain any chemio ntal Release Pre) are listed unde	vention (40 CFR 68.1 r the U.S. Clean Air A	J.S. Clean Air Act 30, Subpart F).
	Methanol		100 %
Clean Water Act			
This product does not con Water Act, Section 311, ⁻ This product does not con Act Section 307	Table 117.3.		
US State Regulations			
Massachusetts Right T 67-56-1	o Know Methanol		90 - 100 %
Pennsylvania Right To	Know		
67-56-1	Methanol		90 - 100 %
New Jersey Right To Know			
67-56-1	Methanol		90 - 100 %
California Prop 65 WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.			
67-56-1	Methanol		
The components of this product are reported in the following inventories:			
Switzerland. New notif	ied substance	s and declared :	y (positive listing)

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 Inven- tory)
Canadian Domestic Substances List (DSL)	•••	y (positive listing) (All components of this product are on



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		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 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)

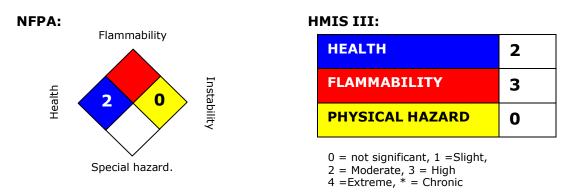


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SECTION 16. OTHER INFORMATION

Further information



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

Legecy MSDS: R0001447, 14000001042

Material number:

16076584, 20298, 160329, 20303, 16056428, 16061181, 16056425, 16056426, 16056427, 16055184, 16053934, 16049742, 16048212, 16047323, 16039562, 16034861, 16032613, 16031073, 16024445, 16024444, 16021152, 16018469, 16016316, 779915, 743459, 736115, 730007, 730006, 717897, 716726, 713298, 710534, 699273, 695309, 695256, 694361, 689940, 690224, 682513, 638917, 627702, 625491, 602665, 600798, 554053, 554376, 554361, 554308, 554052, 554159, 546854, 546132, 508417, 122681, 136311, 117978, 132227, 131334, 146769, 161018, 118306, 116867, 117981, 145658, 161021, 144602, 130207, 130736, 131538, 159527, 115232, 82339, 160328, 82470, 115098, 159524, 115229, 143136, 508297, 504381, 504224, 501342, 39841, 22244, 22243, 20305, 20304, 20302, 20301, 20300, 20299, 20297, 500031

Key or legend to abbreviations and acronyms used in the safety data sheet					
ACGIH	American Conference of Gov-	LD50	Lethal Dose 50%		
	ernment Industrial Hygienists				
AICS	Australia, Inventory of Chem-	LOAEL	Lowest Observed Adverse Effect		



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	ical Substances		Level
DSL	Canada, Domestic Sub- stances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Sub- stances 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 Admin- istration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Exist- ing Chemical Substances	PICCS	Philipines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concen- tration 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 Reau- thorization Act.
IARC	International Agency for Re- search on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemi- cal Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Sub- stances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical In- ventory	UVCB	Unknown or Variable Compositon, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials In- formation System
LC50		Lethal Concentration 50%	