G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME-----> METHYL ACETATE

PRODUCT NUMBERS-----> 194300

CHEMICAL NAME OR SYNONYMS-----> Acetic Acid, Methyl Ester

CAS-NO: 79-20-9 CHEMICAL FAMILY: Ester

1.2 <u>RELAVENT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES</u> ADVISED AGAINST:

RECOMMENDED USE: Industrial: Intermediate, Polymer processing, Manufacture of substances. Uses in cleaning agents, Use in coatings and adhesives/sealants, Use in metal working fluids, Laboratory chemicals. USES ADVISED AGAINST: No information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: G.J. CHEMICAL CO., INC.

Address: 40 VERONICA AVENUE

SOMERSET, NJ 08873 Telephone: 1-973-589-1450

Fax: 1-973-589-3072

1.4 Emergency Telephone Number Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS) Flammable liquids (Category 2), H225 Eye irritation (Category 2A), H319 Specific target organ toxicity - single exposure (Category 3) Central Nervous System, H336

2.2 GHS Label elements, including precautionary statements



Pictograms

Signal word Danger

Hazard statement(s) H225 Highly flammable liquid and vapor. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

Precautionary statement(s)

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. - 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 discharge.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

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.

P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: Repeated exposure may cause skin dryness or cracking.

3. INGREDIENTS

3.1 SUBSTANCE:

Ingredient	CAS No.	% by wt.	CLASSIFICATION
	79-20-9 EC-No.201-185-2 nber 607-021-00-X 9459211-47-XXXX	>97.5 	Flammable liquids (Category 2), H225 Eye irritation (Category 2A), H319 STOT-SE (Category 3) Central Nervous System, H336
	67-56-1 EC-No.200-659-6 ex-No.603-001-00-X 19433307-44-XXXX	 <2.5 	 Flammable liquids (Category 2), H225 Acute toxicity, Oral (Category 3), H301 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 3), H311 STOT-SE (Category 1), H370

3.2 MIXTURE: Not applicable

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

INHALATION> METHYL ACETATE

**<u>FIRST AID- Remove from exposure area to fresh air</u> <u>immediately. If breathing has stopped, perform artificial</u> <u>respiration. Keep person warm and at rest. Treat</u> <u>symptomatically and supportively. Get medical attention</u> <u>immediately.</u>

EYES (SPLASH)> METHYL ACETATE

**<u>FIRST AID- Wash eyes immediately with large amounts of</u> water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flushing. <u>Get medical</u>

attention immediately.

SKIN (SPLASH)> METHYL ACETATE

**<u>FIRST AID- Remove contaminated clothing and shoes</u> <u>immediately. Wash affected area with soap or mild detergent and</u> <u>large amounts or water until no evidence of chemical remains</u> (approximately 15-20 minutes). Get medical attention if irritation persists.

INGESTION> METHYL ACETATE

**<u>FIRST AID- Do not induce vomiting unless directed by a</u> physician. Never give anything by mouth to an unconscious person. Rinse mouth with water. Get medical attention immediately. Treat symptomatically.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED: <u>Eye</u>: Vapor and liquid irritating;

Skin: Causes drying of skin;

<u>Inhalation</u>: Irritation of the respiratory tract. High concentrations may cause acute nervous system depression characterized by headache, dizziness, coughing, chest pain and breathing difficulty.

Ingestion: Causes headache, drowsiness and dizziness.

<u>Chronic</u>: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose. Damage may occur to the kidney or liver.

<u>Medical Conditions Aggravated by Exposure</u>: Significant exposure to this chemical may adversely affect people with acute or chronic disease of the: Respiratory tract, Skin, Eyes and central nervous system.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Specific details on antidote: No recommendation given.

5. FIRE FIGHTING MEASURES

Flash Point: -13°C (9°F) TCC	LEL %: 3.0 (V)
Auto-ignition temp: 454°C (849°F)	UEL %: 16.0 (V)

5.1 SUITABLE EXTINGUISHING MEDIA:

Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

Unsuitable extinguishing media: Do not use waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR

<u>MIXTURE:</u> FIRE AND EXPLOSION HAZARD: DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK. VAPOR-AIR MIXTURES ARE EXPLOSIVE ABOVE FLASH POINT. Keep containers tightly closed. Flammable liquid; isolate from all sources of ignition. Closed containers may explode when exposed to extreme heat. Liquid floats on water.

<u>CONDITIONS OF FLAMMABILITY</u>: Flammable in the presence of a source of ignition when the temperature is above the flash point.

HAZARDOUS COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

5.3 <u>ADVICE FOR FIREFIGHTERS</u>: Shut off source. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion when exposed to extreme heat. Wear self-contained breathing apparatus for confined spaces and where there is exposure to vapors. Use full fire-fighting protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY

<u>PROCEDURES</u>: Extremely Flammable; Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

6.2 ENVIRONMENTAL PRECAUTIONS:

Keep out of water sources and sewers. Do not flush into surface water or sanitary sewer system.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Methods for cleanup and containment:

Use explosion proof equipment. Shut off valves, contain spill, keep out of water sources and sewers, for smaller spills add non-flammable absorbent in spill area. For large spills use foam on spill to minimize vapors clean up by electrically protected vacuuming then using non-flammable absorbent.

Methods for disposal:

Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

OCCUPATIONAL SPILL: Shut off ignition sources. Do not touch spilled material. Stop leak if you can do it without risk. Use water spray to reduce vapors. For small spills, take up with sand or other absorbent material and place into containers for later disposal. For large spills, dike far ahead of spill for later disposal. No smoking, flames, or flares in spill area! Keep unnecessary people away; Isolate hazard area and deny entry.

REPORTABLE QUANTITY (RQ): Methanol - 5000 lbs.

The Superfund Amendments and Reauthorization Act (SARA) Section 304 requires that a release equal to or greater than the reportable quantity for this substance be immediately reported to the local emergency planning committee and the state emergency response commission (40 CFR 355.40). If the release of this substance is reportable under CERCLA Section 103, the national response center must be notified immediately at (800) 424-8802 or (202) 426-2675 in the metropolitan Washington D.C. area (40 CFR 302.6).

6.4 <u>REFERENCE TO OTHER SECTIONS</u>: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 <u>PRECAUTIONS FOR SAFE HANDLING</u>: This material presents a fire hazard. Liquid quickly evaporates and forms vapor (fumes), which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Vapor is heavier than air and can travel considerable distance to a source of ignition and flash back. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not take internally. Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

Advice on general occupational hygiene:

Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs. When using do not smoke.

<u>STATIC HAZARD</u>: 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 be sufficient. For more information refer to OSHA Standard 29CFR 1910.106 "Flammable and Combustible Liquids" and National Fire Protection Association (NFPA 77) "Recommended Practice on Static Electricity".

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Recommended storage temperature: 15 - 25 °C. Store large quantities only in cool, dry areas in buildings designed to comply with OSHA 1910.106. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Do not contact with oxidizing materials. Keep containers closed when not in use. Storage class (TRGS 510): 3: Flammable liquids

<u>CONTAINER WARNINGS</u>: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner.

7.3 SPECIFIC END USES: Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

8.1 CONTROL PARAMETERS:

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Methyl Acetat	te 79-20-9 EC-No.201-185-2 Index Number 607-021-00-X egNo. 01-2119459211-47-XXXX	 >97.5 	 200ppm TWA (ACGIH) 200ppm TWA (OSHAZ-1) 200ppm TWA (NIOSH) 250ppm STEL (ACGIH) 250ppm STEL (OSHAZ-1) 250ppm STEL (NIOSH)
Methanol R	67-56-1 EC-No.200-659-6 Index-No.603-001-00-X egNo. 01-2119433307-44-XXXX	<2.5 	 200ppm TWA (ACGIH) 250ppm STEL (ACGIH) 200ppm TWA (OSHAZ-1) 250ppm STEL (OSHAZ-1) 200ppm TWA (NIOSH) 250ppm STEL (NIOSH)

Key: (PEL) = Permissible Exposure Limit OSHA (TLV) = Threshold Limit Value OSHA & ACGIH (STEL) = Short Term Exposure Limit ACGIH (WEEL) = USA. Workplace Environmental Exposure Levels (TWA) = Time Weighted Average CAS = Chemical Abstracts Registry Number IDLH = Immediate Danger to Life and Health N.E. =None Established

8.2 EXPOSURE CONTROLS

<u>GENERAL CONSIDERATIONS</u>: Consider the potential hazards of this material (Section 2), 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.

ENGINEERING CONTROLS: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

<u>RESPIRATORY PROTECTION:</u> The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA):

For known vapor concentrations use a NIOSH/MSHA air purifying respirator with full face-piece and organic vapor cartridge for exposures >1 <10 times ACGIH TWA. For exposures greater than 10 times ACGIH TWA of for unknown vapor concentrations use NIOSH/MSHA approved positive pressure self-contained breathing apparatus (SCBA) with full face-piece.

BODY CLOTHING: Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse. Users should determine acceptable performance characteristics of protective clothing.

<u>SKIN PROTECTION</u>: Employee must wear appropriate protective gloves to prevent contact with this substance. Splash contact Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 182 min <u>HYGIENE</u>: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

EYE/FACE PROTECTION: Use safety eyewear with splash-guards or face shield. Contact lenses should not be worn when working with this material. Shower and eyewash should be located in an easily accessible location to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Methyl Acetate 79-20-9	
Appearance	> Clear mobile liquid
Color	> Colorless
Odor	> Strong fruity odor.
Odor Threshold	> 4.6ppm
Odor	> Fruity
рН	> No data available
Molecular Weight	> 74.08
Melting/Freezing Point	> -98°C (-144°F)
Boiling Point	> 57 - 58°C (135 - 136°F)
Specific Gravity	>0.934@25°C
Vapor Pressure	
Vapor Density (air=1)	- > 2.8
Water Solubility	>319g/I@20°C
Partition Coefficient N-Octanol/Water	> log Pow 0.18
Evaporation Rate (Butyl Acetate=1)	
Flash Point	> -13°C (9°F) TCC
Upper Flammability Limit	
Lower Flammability Limit	> 3.0% (V)
Auto-Ignition Temperature	>454°C (849°F)
Decomposition Temperature	> No Data Available
Dynamic Viscosity	
Explosive Properties	
Oxidizing Properties	> No Data Available

OTHER INFORMATION:

Surface tension-----> 24 mN/m at 20 °C (68 °F)

10. STABILITY AND REACTIVITY INFORMATION

10.1 <u>REACTIVITY</u>: No data available.

10.2 <u>CHEMICAL STABILITY</u>: Unstable () Stable (X) Stable under recommended storage conditions.

10.3 <u>POSSIBILITY OF HAZARDOUS REACTIONS:</u> Vapors may form explosive mixtures with air.

<u>POLYMERIZATION</u>: May occur () Will not occur (X)

10.4 <u>CONDITIONS TO AVOID:</u> Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame.

10.5 INCOMPATIBLE MATERIALS:

Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide.

10.6 <u>HAZARDOUS DECOMPOSITION PRODUCTS</u>: Fumes, Smoke, Carbon Monoxide, Aldehydes and other decomposition products where combustion is not complete.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Vapor and liquid irritating;

Skin> Causes drying of skin;

Inhalation> Irritation of the respiratory tract. High concentrations may cause acute nervous system depression characterized by headache, dizziness, coughing, chest pain and breathing difficulty.

Ingestion> Causes headache, drowsiness and dizziness.

Chronic: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose. Damage may occur to the kidney or liver.

Medical Conditions Aggravated by Exposure> Significant exposure to this chemical may adversely affect people with acute or chronic disease of the: Respiratory tract, Skin, Eyes and central nervous system.

ACUTE TOXICITY:

The effects of overexposure shown in Section III are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50(Rat)	Skin LD50(Rabb	it) Inhalation LC50	Ι
Methyl Acetate	 6482g/kg	 >5000mg/kg	 >49.2-98.4mg/l/4h	 r
	(OECD Test 401)			

Methanol	1187-2769mg/kg 	17100kg/kg	87.6mg/l/6hr 	
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Methyl Acetate:

TOXICITY DATA: 6335 PPM/ 4 hours inhalation-rat LCLO; TDLO 14 G/KG oral-rat LD50; Inhalation of aerosol 391ppm oral rat.

SKIN CORROSION/IRRITATION: Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)

SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Irritating to eyes. (OECD Test Guideline 405)

RESPIRATORY OR SKIN SENSITIZATION: No data available

MUTAGENIC EFFECTS: Ames test S. typhimurium Result: negative (OECD Test Guideline 474) Rat - male and female Result: negative

CARCINOGEN STATUS:

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. 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. 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.

REPRODUCTIVE TOXICITY: No Data Available Specific target organ toxicity (STOT - SE) - single exposure May cause drowsiness or dizziness – Central Nervous System Specific target organ toxicity (STOT- RE) - repeated exposure no data available

ASPIRATION HAZARD: No Data Available

11.2 ADDITIONAL INFORMATION: This product is metabolized into formic acid. Humans and other primates metabolize formic acid more slowly than do rodents. Formic acid can build up in the body producing toxic effects possibly leading to death; therefore, data from studies in rodents may have limited relevance for human risk assessment.

AT INCREASED RISK FROM EXPOSURE: Persons with liver disease.

Additional Information: This product is metabolized into formic acid. Humans and other primates metabolize formic acid more slowly than do rodents. Formic acid can build up in the body producing toxic effects possibly leading to death;

therefore, data from studies in rodents may have limited relevance for human risk assessment. RTECS: A19100000

Methanol:

SKIN CORROSION/IRRITATION : Irritating to skin.

SERIOUS EYE DAMAGE/EYE IRRITATION: Irritating to eyes. Risk of serious damage to eyes.

RESPIRATORY IRRITATION: Irritating to respiratory tract.

RESPIRATORY OR SKIN SENSITIZATION: No data available

MUTAGENIC EFFECTS:

Genotoxicity in vitro - Ames test - S. typhimurium - with and without metabolic activation - negative

Genotoxicity in vitro - in vitro assay - fibroblast - negative

Mutation in mammalian somatic cells.

Genotoxicity in vivo - mouse - male and female - Intraperitoneal - negative

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.

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.

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.

REPRODUCTIVE TOXICITY: No data available.

SPECIFIC TARGET ORGAN TOXICITY (STOT-SE) - Single Exposure (Globally Harmonized System) Causes damage to organs.

SPECIFIC TARGET ORGAN TOXICITY (STOT-RE) - Repeated Exposure (Globally Harmonized System)

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

11.2 ADDITIONAL INFORMATION:

AT INCREASED RISK FROM EXPOSURE: Persons with kidney, eye or skin disorders.

12. ECOLOGICAL INFORMATION

Methyl Acetate: exhibits low acute toxicity to aquatic organisms.

12.1 AQUATIC TOXICITY:

Toxicity to Fish:

LC50 Danio rerio (Zebra Fish) 250-350ppm 96hr

Toxicity to daphnia and other aquatic invertebrates:

EC50 Daphnia magna (Water Flea) 1026.7ppm 48hr

Toxicity to algae:

EC50 Desmodesmus subspicatus (Scenedesmus subspicatus) 120mg/l 72hr Toxicity to bacteria:

EC50 Pseudomonas putida 6000mg/l 16hr

12.2 <u>PERSISTENCE AND DEGRADABILITY</u>; 70% readily biodegradable aerobicexposure time 28 days.

12.3 <u>BIOACCUMULATIVE POTENTIAL</u>: The log-n octanol/water partition coefficient was determined experimentally to be 0.18 These data indicate a low potential to bioaccumlate.

12.4 MOBILITY IN SOIL: No data available

12.5 RESULTS OF PBT AND vPvB :

PBT assessment results: This substance is not classified as PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS: No data available

Methanol:

DANGEROUS TO AQUATIC LIFE IN HIGH CONCENTRATIONS

May be dangerous if it enters water intakes.

Notify local health and wildlife officials.

Notify operators of nearby water intakes.

12.1 ACUTE AQUATIC TOXICITY:

Toxicity to fish:

LC50 - Lepomis macrochirus (Bluegill) - 15,400.0 mg/L - 96 h

LC50 – Pimphales promelas (Fathead Minnow) – 28200 mg/L – 96 h

LC50 – Oncorhynchus mykiss (Rainbow Trout) – 19500-20700 mg/L – 96 h

NOEC - Oryzias latipes - 7,900 mg/L - 200 h

Toxicity to daphnia and other aquatic invertebrates:

EC50 - Daphnia magna (Water flea) - > 10,000.00 mg/L - 48 h

Toxicity to algae Growth inhibition:

EC50 - Scenedesmus capricornutum (fresh water algae) - 22,000.0 mg/L -96hr 12.2 <u>PERSISTANCE AND DEGRADABILITY</u>: Result: 72 % - rapidly biodegradable 12.3 BIOACCUMULATIVE POTENTIAL: Cyprinus carpio (Carp) - 72 d at 20 °C

Bioconcentration factor (BCF): 1.0

Biochemical Oxygen Demand (BOD): 600 - 1,120 mg/g

Chemical Oxygen Demand (COD): 1,420 mg/g

No indication of bioaccumulation potential.

12.4 MOBILITY IN SOIL: No data available

12.5 <u>RESULTS OF PBT AND vPvB ASSESSMENT</u>: This substance does not meet the criteria for classification as PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS: Do not allow this material to enter streams,

sewers and other waterways.

13. **DISPOSAL CONSIDERATIONS**

13.1 WASTE TREATMENT METHODS:

Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.

<u>CONTAMINATED PACKAGING:</u> Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

RCRA: The unused product is a RCRA hazardous waste if discarded. The RCRA ID number for the appropriate spent solvent code D001. DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 48 CFR 262

14. TRANSPORT INFORMATION

Land Transport (DOT)
14.1 USDOT ID Number> UN1231
14.2 USDOT Shipping Name> Methyl Acetate
14.3 USDOT Hazard Classification> 3 (Flammable Liquid)
USDOT Label Codes> 3
14.4 USDOT Package Code> II
14.5 Environmental hazard> None
14.6 Special precautions for user> None
Emergency Response Guide> 129
Reportable quantity> Methanol - 5000lbs.
Sea Transport (IMDG)

14.1 ID Number-----> UN1231 14.2 Proper shipping name-----> METHYL ACETATE 14.3 Hazard Classification-----> 3 (Flammable Liquid)

Label Codes> 3	5
14.4 Package Code>	1
14.5 Marine Pollutant> I	No
14.6 Special precautions for user>	No
EMS-Number>	F-E, S-D

Air Transport (IATA)

- 14.1 ID Number-----> UN1231
- 14.2 Proper shipping name-----> Methyl Acetate
- 14.3 Hazard Classification-----> 3 (Flammable Liquid)
- Label Codes-----> 3
- 14.4 Package Code-----> II
- 14.5 Environmental hazard-----> None
- 14.6 Special precautions for user-----> None

15. **<u>REGULATORY INFORMATION</u>**

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Listed Methanol CAS 67-56-1

SECTION 311/312: Hazard Categorization (40 CFR 370) - Acute Health Hazard, Fire Hazard

<u>CERCLA (Comprehensive Environmental Response, Compensation, and Liability</u> <u>Act)</u> SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Listed

SECTION 101(14) Reportable Quantity: Methanol 5,000 lbs

RCRA (Resource Conservation and Recovery Act.)

40 CFR 261.33 Hazardous Waste Number: Methyl Acetate -Appropriate Spent Solvent Number D001. Methanol –U154

Massachusetts Right to Know Components Methyl acetate CAS-No. 79-20-9 Methanol CAS 67-56-1

Pennsylvania Right to Know Components Methyl acetate CAS-No. 79-20-9 Methanol CAS 67-56-1

New Jersey Right to Know Components Methyl acetate CAS-No. 79-20-9 Methanol CAS 67-56-1

California Prop. 65 Components

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Methanol CAS 67-56-1

TSCA (Toxic Substance Control Act)

Methyl acetate CAS-No. 79-20-9 and Methanol CAS 67-56-1 are listed on the TSCA Inventory.

International Inventories:

Country or Region	Inventory Name On inventory y	<u>/es/no</u>
<u>Australia</u>	Australian Inventory of Chemical Substances (AICS)	Yes
<u>Canada</u>	Domestic Substances List (DSL)	Yes
<u>Canada</u>	Non-Domestic Substances List (NDSL)	No
<u>China</u>	Inventory of Existing Chemical Substances in China (IECSC) Yes
<u>Europe</u>	European Inventory of Existing Commercial Chemicals Substances (EINECS)	Yes
<u>Europe</u>	European List of Notified Chemical Substances (ELINCS)	No
<u>Japan</u>	Inventory of Existing and New Chemical Substances (ENCS) Yes
<u>Japan</u>	Industrial Safety & Health Law Inventory (ISHL)	Yes
<u>Korea</u>	Existing Chemicals List (ECL)	Yes
<u>Mexico</u>	National Inventory of Chemical Substances (INSQ)	Yes
New Zealand	New Zealand Inventory	Yes
<u>Philippines</u>	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Switzerland	Inventory of Notified New Substances (CHINV)	Yes
<u>Taiwan</u>	National Existing Chemical Inventory (NECI)	Yes
United States &	Toxic Substances Control Act Inventory	Yes
<u>Puerto Rico</u>		

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has been carried out for this substance.

16. OTHER INFORMATION:

HMIS (Hazardous Materials Identification System) Hazard Rating: 4-Extreme

3-High 2-Moderate 1-Slight 0-Insignificant

NFPA RATINGS (SCALE 0-4):	Health=2	Fire=3	Reactivity=1
HMIS RATINGS (SCALE 0-4):	Health=2	Fire=3	Reactivity=0 PPE=G

Hazard statement(s) from Section 2 and 3:
H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

Date of preparation-----> December 15, 2015 Revision Number-----> 1.1 Revision Content-----> General update all sections Revision Date-----> October 10, 2018 Prepared by------> T.G. Fenstermaker Jr.

Acronyms:

 AIHA - American Industrial Hygiene Association ANSI - American Nation Standards Institute API - American Petroleum Institute CERCLA - Comprehensive Emergency Response, Compensation, and Liability Act DOT - U.S. Department of Transportation EC-50 - Effective Concentration EPA - U.S. Environmental Protection Agency HMIS - Hazardous Materials Information System IARC - International Agency For Research On Cancer
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IARC - International Agency For Research On Cancer
LD-50 - Lethal Dose
MAK - Germany Maximum Concentration Values
MSHA - Mine Safety and Health Administration
NFPA - National Fire Protection Association
NIOSH - National Institute of Occupational Safety and Health
NOIC - Notice of Intended Change (Proposed change to ACGIH TLV)
NTP - National Toxicology Program
OPA - Oil Pollution Act of 1990
OSHA - U.S. Occupational Safety & Health Administration
PEL - Permissible Exposure Limit (OSHA)
RCRA - Resource Conservation and Recovery Act
REL - Recommended Exposure Limit (NIOSH)
SARA - Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA - Self-Contained Breathing Apparatus
STEL - Short-Term Exposure Limit (generally 15 minutes)
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average (8hr.)
WHMIS - Canadian Workplace Hazardous Materials Information System

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