

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

## 1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME: **SPEC. DENATURED ALCOHOL 29 200**

PRODUCT NUMBER(S): 261000

TRADE NAMES/SYNONYMS: Denatured Alcohol, SDA-29 Alcohol,

CHEMICAL FAMILY: Hydroxyl, Aliphatic

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

RECOMMENDED USE: Use as a solvent; Use as a raw material in Manufacture of substances, Medicinal chemicals, General Laboratory use.

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



Pictogram

GHS02

GHS07

Signal word: **DANGER**

Hazard statement(s)

H225 Highly flammable liquid and vapor.

H319 Causes serious eye 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/ protective clothing/ 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 present 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

COMPONENT	CAS NO.	% BY WT.	CLASSIFICATION
Ethyl Alcohol	64-7-5 EC-No.200-578-6 Index-No.603-002-00-5 Reg.-No.1-2119457610-43-XXXX	98.9%	Flammable liquids (Category 2), H225
Ethyl Acetate	141-78-6 EC-No.205-500-4 Index-No.607-022-00-5 Reg.-No.0-2119475103-46-XXXX	1.1%	Flammable liquids (Category 2), H225 Eye irritation (Category 2A), H319 STOT-SE (Category 3), Central Nervous System, H336
WATER	7732-18-5 EC-No. 231-791-2	0.1 max.	Not a hazardous substance or mixture.
Non-volatile Matter		0.001% max	

Less than 0.5% miscellaneous organic contaminants not tested for.

### 4. FIRST-AID MEASURES

**General Advice:** Take proper precautions to ensure you own health and safety before attempting rescue and providing first aid. Show this SDS to the doctor in attendance

#### 4.1 DESCRIPTION OF FIRST AID MEASURES

##### INHALATION:

**\*\*FIRST AID-** Remove from exposure area to fresh air immediately. If breathing has stopped, give artificial respiration. Maintain airway and blood pressure and administer oxygen if available. Keep affected person warm and at rest. Treat symptomatically and supportively. Administration of oxygen should be performed by qualified personnel. Get medical attention immediately.

##### SKIN CONTACT:

**\*\*FIRST AID-** Remove contaminated clothing and shoes immediately, wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20

minutes). Get medical attention immediately.

#### **EYE CONTACT:**

**\*\*FIRST AID- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (at least 15-20 minutes). Remove contact lenses, if worn, after initial flush. Continue irrigating with normal saline until the ph has returned to normal (30-60 minutes). Cover with sterile bandages. Get medical attention immediately.**

#### **INGESTION:**

**\*\*FIRST AID- Removal of ethyl alcohol by gastric lavage with tap water or emesis should be performed by qualified medical personnel(Dreisbach, Handbook of Poisoning, 11th ed.) or by gastric lavage with warm water or 3-5% sodium bicarbonate solution unless two hours or more have passed since ingestion (Gosselin, Clinical Toxicology of Commercial Products). Syrup of ipecac may be given promptly following ingestion.**

#### **4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:**

**Inhalation:** Exposure to high concentrations has a narcotic effect when inhaled, production symptoms of drowsiness, headache, staggering, unconsciousness and possibly death.

**Skin:** Contact with skin has a de-fatting action that can cause irritation. May cause irritation with a stinging effect and burning sensation. Contact dermatitis has been reported in a few sensitive individuals. Substance may be dermally absorbed resulting in systemic toxicity as detailed in acute ingestion. Toxic effects may become more marked if absorption and inhalation occur concurrently.

**Eyes:** Splashes in eyes may cause severe irritation, possible corneal burns and eye damage.

**Ingestion:** May cause drowsiness, unconsciousness, and death. Gastrointestinal pain, cramps, nausea, vomiting, and diarrhea may also result. Vomiting with aspiration may cause aspiration pneumonia.

The components in this formulation may cause chronic kidney and liver damage. Chronic intoxication may result in weight loss, degenerative changes in the liver, kidneys, and brain, gastroenteritis with anorexia and diarrhea, and cirrhosis of the liver. Repeated ingestion may cause visual impairment and blindness and other systemic effects as detailed in acute ingestion.

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

##### **\*\*ANTIDOTE\*\***

The following antidote has been recommended. However, the decision as to whether the severity of poisoning requires administration of any antidote and actual

dose required should be made by qualified medical personnel.

**ETHANOL POISONING:**

Naloxone, 0.01 MG/KG, intravenously, has an arousal effect in acute alcoholic coma (Dreisbach, Handbook of Poisoning, 11th ed.). Antidote should be administered by qualified medical personnel.

**5. FIRE FIGHTING MEASURES**

FLASH POINT: 14°C (57°F) (CC)      UPPER EXPLOSIVE LIMIT: 19.0% (V)  
AUTOIGNITION TEMP: 363°C (685°F)      LOWER EXPLOSIVE LIMIT: 3.3% (V)  
UNIFORM FIRE CODE: Flammable Liquid Class 1B

**5.1 SUITABLE EXTINGUISHING MEDIA:** DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY OR ALCOHOL-RESISTANT FOAM FOR LARGER FIRES, USE WATER SPRAY, FOG OR ALCOHOL-RESISTANT FOAM

Unsuitable extinguishing media: Do not use waterjet.

**5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:** 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.

Dangerous fire hazard when exposed to heat. Vapor may explode if ignited in an enclosed area.

**CONDITIONS OF FLAMMABILITY:** 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 monoxide, carbon dioxide, carbon oxides, nitrogen oxides and other unidentified organic compounds evolve when this material undergoes combustion.

**5.3 ADVICE FOR FIREFIGHTERS:** Shut off source. Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind Do not spray pool fires directly. A solid stream of water or foam directed into hot burning liquid can cause frothing. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. 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. Cool containers with water-fog from as far a distance as possible.

Wear NIOSH/MSHA approved self-contained breathing apparatus (SCBA) for confined spaces. Use full fire-fighting protective clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures.

## **6. ACCIDENTAL RELEASE MEASURES**

**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** Flammable Liquid; Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. 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, drains 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 and equipment that can withstand the corrosive nature of this product. Shut off valves, contain spill, keep out of water sources and sewers, for smaller spills add non-flammable absorbent in spill area. Stop leak if you can do it without risk. Use water spray to reduce vapors. For large spills use water on spill to minimize vapors clean up by 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. Do not touch spilled material.

**REPORTABLE QUANTITY (RQ):** Ethyl Acetate: 5000lbs; Blend (calculated): 454545lbs.

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) 424-8882 or (202) 426-2675 in the metropolitan Washington, D. C. area (40 CFR 302.6).

**6.4 REFERENCE TO OTHER SECTIONS:** See Sections 8 and 13.

## **7. HANDLING AND STORAGE**

**7.1 PRECAUTIONS FOR SAFE HANDLING:** This material presents a fire hazard. 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. 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. Keep away from heat, sparks and flame. Keep container tightly closed and upright to prevent leakage. Use only with adequate ventilation. Prevent buildup of vapors. Extinguish all pilot lights and turn off heater, non explosion-proof electrical equipment and other sources of ignition during use and until all vapors are gone. Avoid contact with eyes. Avoid prolonged or repeated breathing of vapor. Avoid prolonged or repeated contact with skin. Wash hands thoroughly after handling.

**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.

**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 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. Store in a well ventilated place, away from sources of ignition and direct sunlight. Store at 15 to 30°C (59 to 86 °F). In laboratory quantities, store away from oxidizing material, mineral acids, and chloroform. Store denatured alcohol in areas equipped with automatic sprinklers or fire extinguishing system. All denatured alcohol storage and transfer equipment should be electrically grounded and bonded to prevent possible ignition from static sparks. Use spark resistant equipment to store denatured alcohol. So not use air pressure to unload denatured alcohol from containers. Containers of this material may be hazardous when empty. Since emptied containers retain product residues, assume emptied containers to have the same hazard qualities as full containers.

**CONTAINER WARNINGS:** 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 re-conditioner.

**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:**

<b>COMPONENT</b>	<b>CAS NO.</b>	<b>% BY WT.</b>	<b>EXPOSURE LIMITS</b>
Ethyl Alcohol	64-7-5 EC-No.200-578-6 Index-No.603-002-00-5 Reg.-No.1-2119457610-43-XXXX	98.9%	1000PPM TWA (ACGIH) 1000PPM TWA (NIOSH) 1000PPM TWA (OSHA)
Ethyl Acetate	141-78-6 EC-No.205-500-4 Index-No.607-022-00-5 Reg.-No.0-2119475103-46-XXXX	1.1%	400PPM TWA (ACGIH) 400PPM TWA (OSHA) 400PPM TWA (NIOSH) 2000PPM IDLH
WATER	7732-18-5 EC-No. 231-791-2	0.1% max.	
Non-volatile Matter		0.001% max	

Less than 0.5% miscellaneous organic contaminants not tested for.

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**

**EXPOSURE GUIDELINES:** Consider the potential hazards of this material (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.

**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.

**RESPIRATORY PROTECTION:** The following respirators are recommended based on information found in the physical data, toxicity and health effects sections. They are ranked in order from minimum to maximum respiratory protection.

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

Any chemical cartridge respirator with organic vapor cartridge(s) and a full face-piece.

Any gas mask with organic vapor canister (chin style or front- or back-mounted canister), with a full face-piece.

Any type 'C' supplied air respirator full face-piece operated in pressure-demand or other positive-pressure mode or with a full face-piece, helmet or hood operated in a continuous-flow mode.

Any self-contained breathing apparatus with a full face-piece operated in pressure-demand or other positive-pressure mode.

**BODY CLOTHING:** Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

**SKIN PROTECTION:** Employee must wear appropriate protective gloves to prevent contact with this substance.

Full contact:

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 480 min

Splash contact:

Material: Nitrile rubber

Minimum layer thickness: 0.2 mm

Break through time: 60 min

**HYGIENE:** 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.

Emergency shower and eyewash should be easily accessible to the work area.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:**

Special Denatured Alcohol (SDA) 29 200

<b>APPEARANCE:</b>	Watery liquid
<b>COLOR:</b>	Colorless
<b>ODOR:</b>	Characteristic sweetish alcohol odor
<b>ODOR THRESHOLD:</b>	10ppm
<b>pH:</b>	No data available
<b>MOLECULAR WEIGHT:</b>	46.07 amu
<b>MELTING POINT:</b>	-144°C (-227°F)
<b>BOILING POINT:</b>	78-80°C (172-176°F)
<b>SPECIFIC GRAVITY:</b>	0.794-.797@ 20°C (68.0°F)
<b>DENSITY (20°C):</b>	0.795g/ml (20°C) (68.0°F)
<b>VAPOR PRESSURE:</b>	40 mm Hg @ 20°C (68.0°F)
<b>VAPOR DENSITY:</b>	1.6
<b>WATER SOLUBILITY:</b>	Complete
<b>PARTITION COEFFICIENT N-OCTANOL/WATER</b>	No data available
<b>FLASH POINT:</b>	14°C (57°F)
<b>EVAPORATION RATE (BUTYL ACETATE=1):</b>	3
<b>UPPER FLAMMABILITY LIMIT:</b>	19% (V)
<b>LOWER FLAMMABILITY LIMIT:</b>	3.3% (V)
<b>AUTO IGNITION TEMPERATURE:</b>	363°C (685°F)
<b>DECOMPOSITION TEMPERATURE:</b>	No data available
<b>VISCOSITY:</b>	No data available
<b>EXPLOSIVE PROPERTIES:</b>	No data available
<b>OXIDIZING PROPERTIES:</b>	No data available

**9.2 OTHER INFORMATION:** No data available

## **10. STABILITY AND REACTIVITY INFORMATION**

**10.1 REACTIVITY:** No data available.

**10.2 CHEMICAL STABILITY:** Unstable ( ) Stable (X)

**10.3 POSSIBILITY OF HAZARDOUS REACTIONS:** Vapors may form explosive mixtures with air.

**HAZARDOUS POLYMERIZATION:** May occur ( ) Will not occur (X)

**10.4 CONDITIONS TO AVOID:** Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame.

## **10.5 INCOMPATIBILITIES: ETHYL ALCOHOL (ETHANOL):**

**ACETIC ANHYDRIDE AND SODIUM HYDROGEN SULFATE:** Possible explosion.  
**ACETYL CHLORIDE:** Violent reaction.  
**ACETYL BROMIDE:** Violent reaction.  
**ALKALI METALS:** Liberates flammable hydrogen gas.  
**ALUMINUM HYDROXIDE AND SILVER (I) OXIDE:** Formation of explosive silver nitride.  
**BARIUM PERCHLORATE:** Formation of explosive compound.  
**BROMINE PENTAFLUORIDE:** Ignition and explosions are possible.  
**CALCIUM HYPOCHLORITE:** Possible explosion.  
**CHLORINE TRIOXIDE:** Violent reaction.  
**CHLORYL PERCHLORATE:** Possible ignition.  
**CHRONIC ANHYDRIDE:** Ignition.  
**CHROMIUM TRIOXIDE:** Possible ignition.  
**CHROMYL CHLORIDE:** Ignition.  
**DIOXYGEN DIFLUORIDE:** Possible explosion.  
**DISULFURIC ACID AND NITRIC ACID:** Possible ignition.  
**DISULFURYL DIFLUORIDE:** Violent reaction.  
**FLUORINE NITRATE:** Explosion.  
**HYDROGEN PEROXIDE:** Formation of highly explosive shock-sensitive compound.  
**HYDROGEN PEROXIDE-SULFURIC ACID MIXTURE:** Explosion.  
**IODINE HEPTAFLUORIDE:** Ignition  
**IODINE-MERCURIC OXIDE-METHYL ALCOHOL MIXTURE:** Possible explosion.  
**IODINE AND PHOSPHORUS:** Formation of explosive ethane iodide.  
**MANGANESE PERCHLORATE AND 2,2-DIMETHOXY PROPANE:** Possible explosion.  
**MERCURIC NITRATE:** Formation of explosive compound.  
**NITRIC ACID:** Violent reaction.  
**NITROSYL PERCHLORATE:** Possible explosion.  
**OXIDIZERS (STRONG):** Fire and explosion hazard.  
**PERCHLORATES:** May form explosive compound when mixed.  
**PERCHLORIC ACID:** Explosion.  
**PERMANGANIC ACID:** Ignition or explosion.  
**PERMANGANATES AND SULFURIC ACID:** Explosion.  
**PEROXYDISULFURIC ACID:** Possible explosion.  
**PHOSPHORUS (III) OXIDE:** Ignition.  
**PLATINUM:** Ignition.  
**POTASSIUM:** Violent reaction.  
**POTASSIUM DIOXIDE:** Violent reaction, possible explosion.  
**POTASSIUM PERCHLORATE:** Possible explosion.  
**POTASSIUM PERMANGANATE:** Possible explosion.  
**POTASSIUM TERT-BUTOXIDE:** Ignition.  
**RUTHENIUM (VIII) OXIDE:** Formation of explosive compound.  
**SILVER AND NITRIC ACID:** Formation of explosive compound.  
**SILVER NITRATE:** Formation of explosive compound.  
**SILVER PERCHLORATE:** May form explosive compound when mixed.  
**SODIUM-AIR:** Possible explosion.  
**SODIUM HYDRAZIDE:** May cause violent explosion on contact.  
**SODIUM PEROXIDE:** Violent reaction.  
**SULFURIC ACID AND SODIUM DICHROMATE:** Possible explosion.  
**TETRACHLOROSILANE:** Violent reaction.  
**URANIUM HEXAFLUORIDE:** Violent reaction.  
**URANYL PERCHLORATE:** May form explosive compound when mixed.

## **10.5 INCOMPATIBILITIES: ETHYL ACETATE**

**OXIDANTS SUCH AS LIQUID CHLORINE  
INORGANIC ACIDS SUCH AS HYDROCHLORIC ACID  
HYDROGEN PEROXIDE  
PLASTICS  
SODIUM HYPOCHLORITE**

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products may include toxic and hazardous fumes of formaldehyde and oxides of carbon.**

## **11. TOXICOLOGICAL INFORMATION**

### **11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:**

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

#### **ACUTE HEALTH EFFECTS:**

**Effects of overexposure:**

**Inhalation: Exposure to high concentrations has a narcotic effect when inhaled, production symptoms of drowsiness, headache, staggering, unconsciousness and possibly death.**

**Skin: Contact with skin has a de-fatting action that can cause irritation. May cause irritation with a stinging effect and burning sensation. Contact dermatitis has been reported in a few sensitive individuals. Substance may be dermally absorbed resulting in systemic toxicity as detailed in acute ingestion. Toxic effects may become more marked if absorption and inhalation occur concurrently.**

**Eyes: Splashes in eyes may cause severe irritation, possible corneal burns and eye damage.**

**Ingestion: May cause drowsiness, unconsciousness, and death. Gastrointestinal pain, cramps, nausea, vomiting, and diarrhea may also result. Vomiting with aspiration may cause aspiration pneumonia.**

**The components in this formulation may cause chronic kidney and liver damage. Chronic intoxication may result in weight loss, degenerative changes in the liver, kidneys, and brain, gastroenteritis with anorexia and diarrhea, and cirrhosis of the liver. Repeated ingestion may cause visual impairment and blindness and other systemic effects as detailed in acute ingestion.**

**Eye: Prolonged or repeated exposure to vapors may cause conjunctivitis.**

#### **ACUTE TOXICITY:**

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

Ingredient	Oral LD50 (Rat)	Skin LD50(Rabbit)	Inhalation LC50
Ethanol	10470mg/kg (OECD Test 401)	N.D.	124.7mg/L/4h (OECD Test 403)
Ethyl Acetate	5620mg/kg	18000mg/kg	45000ppm/4h

**ETHYL ALCOHOL: (ETHANOL)**

**SKIN CORROSION/IRRITATION : Skin - Rabbit Result: No skin irritation - 24 h (OECD Test Guideline 404)**

**SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Moderate eye irritation (OECD Test Guideline 405)**

**RESPIRATORY IRRITATION: No data available.**

**RESPIRATORY OR SKIN SENSITIZATION: No data available**

**MUTAGENIC EFFECTS: Ames test Salmonella typhimurium Result: negative In vitro mammalian cell gene mutation test Mouse lymphoma test Result: negative (OECD Test Guideline 478)**

**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.**

**Specific target organ toxicity (STOT-SE) - single exposure (Globally Harmonized System): no data available**

**Specific target organ toxicity (STOT-RE) - repeated exposure (Globally Harmonized System): no data available**

**ASPIRATION HAZARD: No data available.**

**11.2 ADDITIONAL INFORMATION: No data available.**

**ETHYL ACETATE:**

**SKIN CORROSION/IRRITATION: Skin - Rabbit Result: Mild skin irritation (OECD Test Guideline 404)**

**SERIOUS EYE DAMAGE/EYE IRRITATION: Causes serious eye irritation**

**RESPIRATORY OR SKIN SENSITIZATION:**

**Respiratory: No data available.**

**Skin: No data available.**

**MUTAGENIC EFFECTS: No data available.**

**12.5 RESULTS OF PBT AND vPvB:**

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

**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.

Specific target organ toxicity (STOT- RE) - repeated exposure

no data available

**ASPIRATION HAZARD:** No Data Available

**11.2 ADDITIONAL DATA:** Blood pressure drop, Narcosis, Vertigo. Poisoning effect on central nervous system can cause convulsions, labored breathing and loss of consciousness.

**AT INCREASED RISK FROM EXPOSURE:** Persons with liver disease.

## **12. ECOLOGICAL INFORMATION**

### **DANGEROUS TO AQUATIC LIFE IN HIGH CONCENTRATIONS**

May be dangerous if it enters water intakes.

Notify local health and pollution control officials.

Notify operators of nearby water intakes.

#### **ETHYL ALCOHOL:**

##### **12.1 AQUATIC TOXICITY**

Toxicity to fish:

LC-50 *Carassius auratus* (Goldfish) 250 PPM - 6 h-lethal in fresh water.

##### **12.2 PERSISTANCE AND DEGRADABILITY:**

**12.3 BIOACCUMULATIVE POTENTIAL:** No data available

**Biological Oxygen Demand (BOD):** 125% 5 days, 44.2% (theoretical) 5 days, 71.2% (theoretical) 20 days

**Bio-concentration Factor (BCF):** no data available.

**12.4 MOBILITY IN SOIL:** Mobile

**12.5 RESULTS OF PBT AND vPvB ASSESSMENT:** 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.

#### **ETHYL ACETATE:**

Ethyl Acetate exhibits low acute toxicity to aquatic organisms.

##### **12.1 AQUATIC TOXICITY:** (acute)

Toxicity to Fish:

LC50 *pimephales promelas*, (Fathead minnow) - 230ppm – 96 h

LC50 *pimephales promelas*, (Fathead minnow) - 270ppm – 48 h

LC50 *Salmo gairdneri*, (Rainbow trout) - 230ppm – 96 h

LC50 *Salmo gairdneri*, (Rainbow trout) - 260ppm – 48 h

Toxicity to daphnia and other invertebrates:

EC50 *Daphnia magna*, (Water Flea) - 717ppm – 48 h

EC50 Daphnia magna, (Water Flea) - 2306ppm – 24 h  
NOEC Daphnia magna, (Water flea) - 2.4mg/L – 21 days

Toxicity to algae:

EC50 Selenastrum, (green algae) - 4,300.00 mg/l – 24 h

EC50 Selenastrum, (green algae) - 1,800.00 - 3,200.00 mg/l – 72 h

#### **12.2 PERSISTANCE AND DEGRADABILITY:**

Ethyl Acetate was readily biodegradable when tested according to OECD Guideline 301D.

Theoretical Oxygen Demand: 1.82g/g

Theoretical Carbon Dioxide: 2mg/mg

Biochemical Oxygen Demand: 0.29g/g

Process: biotic/abiotic ; degradation rate: 100% Time: 28 days

Process: oxygen depletion degradation rate: 62% Time: 5 days

#### **12.3 BIOACCUMULATIVE POTENTIAL:**

Does not significantly accumulate in organisms.

n-octanol/water (log Kow): 0.68 (pH 7 25°C)

BCF: 30 (ECHA)

**12.4 MOBILITY IN SOIL:** Data are not 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:** Slightly hazardous to water.

### **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.

**CONTAMINATED PACKAGING:** 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 numbers are: Ethyl Acetate – U112 and D001 or the appropriate spent solvent code. **DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 48 CFR 262**

### **14. TRANSPORT INFORMATION**





**Act)**

**SECTION 102(A) Hazardous Substances (40 CFR 302.4) – Listed  
Acetaldehyde CAS 75-07-0 <=0.001%; Acetone CAS 67-64-1 <=0.0002%**

**Reportable Quantity – Ethyl Acetate CAS-No.141-78-6  
SECTION 101(14) Reportable Quantity - 5000lbs; Blend (calculated) - 454545lbs.**

**RCRA (Resource Conservation and Recovery Act.)**

**40 CFR 261.33 Hazardous Waste Numbers: Ethyl Acetate - U112 and D001 for  
appropriate Spent Solvent Number**

**Massachusetts Right to Know Components**

**Ethyl Acetate CAS-No.141-78-6**

**Ethanol CAS-No.64-17-5**

**Pennsylvania Right to Know Components**

**Ethyl Acetate CAS-No.141-78-6**

**Ethanol CAS-No.64-17-5**

**New Jersey Right to Know Components**

**Ethyl Acetate CAS-No.141-78-6**

**Ethanol CAS-No.64-17-5**

**California Prop. 65 Components**

**This product does not contain any chemicals known to State of California to  
cause cancer, birth defects, or any other reproductive harm.**

**ATF (Alcohol Tobacco and Firearms)**

**Denatured Alcohol, formula 29 is regulated by the ATF and subject to certain record  
keeping and reporting requirements.**

**TSCA (Toxic Substance Control Act)**

**Ethanol CAS-No.64-17-5 and Ethyl Acetate CAS-No.141-78-6 are listed on the TSCA  
Inventory.**

**15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has not  
been carried out for this mixture.**

**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=0  
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.  
H336 May cause drowsiness or dizziness.**

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Prepared by-----> T.G. Fenstermaker Jr**

**Acronyms:**

**ACGIH - American Conference of Governmental Industrial Hygienists  
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  
EPA - U.S. Environmental Protection Agency  
HMIS - Hazardous Materials Information System  
IARC - International Agency For Research On Cancer  
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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**materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.**