

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

## 1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME: **Solvents Company Blend**

PRODUCT NUMBER(S): 235790

TRADE NAMES/SYNONYMS: Blend

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

IDENTIFIED USES: Industrial: Use as solvent; Manufacture of substances  
USES ADVISED AGAINST: No information available

## 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

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Dermal (Category 4), H312

Acute toxicity, Inhalation (Category 4), H331

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Carcinogenicity (Category 2), H351

Specific target organ toxicity - single exposure (Category 3), Respiratory System, Central Nervous system, H335, H336

Acute aquatic toxicity (Category 3), H402

Chronic aquatic toxicity (Category 3), H412

### 2.2 GHS Label elements, including precautionary statements



Signal word      DANGER

Hazard statement(s)

H225 Highly flammable liquid and vapor.  
H302 + H312 Harmful if swallowed or in contact with skin  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H351 Suspected of causing cancer.  
H403 Harmful to aquatic life.  
H412 Harmful to aquatic life with long lasting effects.

**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.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ eye protection/ face protection.  
P281 Use personal protective equipment as required

**Response:**

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
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.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before reuse  
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.

**Disposal:**

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

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

### 3. INGREDIENTS

3.1 SUBSTANCE: Not applicable.

3.2 MIXTURE:

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Acetonitrile	75-05-8 EC-No.200-835-2 Index-No.608-001-00-3 Reg.-No. 01-2119471307-38-XXXX	33.33	Flammable liquids (Category 2), H225 Acute toxicity, Oral (Category 4), H302 Acute toxicity, Inhalation (Category 4), H332 Acute toxicity, Dermal (Category 4), H312 Skin irritation (Category 2A), H319
tert-Butyl Alcohol	75-65-0 EC-No.200-889-7 Index # 603-005-00-1 Reg.-No. 01-2119444321-51-XXXX	33.33	Flammable liquids (Category 2), H225 Acute toxicity inhalation (Category), H332 Eye irritation (Category 2A), H319 STOT-SE (Category 3), Respiratory system, Central Nervous system, H335, H336
Butylene Oxide	106-88-7 EC-No.203-438-2 Index-No.603-102-00-9 Reg.-No. 01-2119449161-46-XXXX	22.22	Flammable liquids (Category 2), H225 Acute toxicity, Oral (Category 4), H302 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 4), H312 Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319 Carcinogenicity (Category 2), H351 STOT-SE (Category 3), Respiratory System, H335 Acute aquatic toxicity (Category 3), H402 Chronic aquatic toxicity (Category 3), H412
Nitromethane	75-52-5 EC-No.200-876-6 Index-No. 609-036-00-7 Reg.-No. 01-2119951858-20-XXXX	11.11	Flammable liquids (Category 3), H226 Acute toxicity, Oral (Category 4), H302 Carcinogenicity (Category 2), H351

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

#### **4. FIRST-AID MEASURES:**

##### **4.1 DESCRIPTION OF FIRST AID MEASURES:**

**INHALATION: POLY SYSTEMS BLEND: IRRITANT.**

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

**SKIN CONTACT: POLY SYSTEMS BLEND**

**\*\*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: POLY SYSTEMS BLEND: IRRITANT.**

**\*\*FIRST AID- Wash eyes immediately with large amounts of lukewarm 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 flush. Get medical attention immediately.**

**INGESTION: POLY SYSTEMS BLEND: NARCOTIC/HEPATOTOXIN.**

**\*\*FIRST AID- Do not induce vomiting. 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**

**Eye:** May cause moderate to severe eye irritation; Symptoms are burning sensation, pain, watering, and/or change of vision. Effects are reversible.

**Skin:** irritating; Harmful if absorbed through skin. Not a sensitizer. Symptoms are crusting, scaling, weeping and itching.

**Inhalation:** Irritation of the respiratory tract. Harmful if inhaled. Symptoms are nasal discharge, hoarseness, coughing, chest pain, and breathing difficulty. May cause symptoms of Central Nervous system depression, see Ingestion.

**Ingestion:** May be harmful if swallowed. Causes mouth and throat irritation. Can cause nausea, dizziness, headache, loss of appetite, gastrointestinal irritation and diarrhea. Can cause central nervous system depression, mental sluggishness, collapse and coma.

**Chronic:** Repeated or prolonged exposure may irritate the mucous membranes. 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 eyes, respiratory tract, digestive tract, skin and central nervous system..

**Medical Conditions Aggravated by Exposure:** Skin contact may aggravate an existing dermatitis. May aggravate mucous membrane dysfunction. May adversely affect people with chronic eye conditions or respiratory tract diseases.

#### **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: 5°C (41°F) TCC

LEL %:3.4 (V)

Auto-ignition Temp: N/A

UEL %:12.3 (V)

UNIFORM FIRE CODE: Flammable Liquid Class IB

**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 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. 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.**

**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 and other unidentified organic compounds evolve when this material undergoes combustion. Heat can release extremely flammable isobutylene gas.

**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.

## **6. ACCIDENTAL RELEASE MEASURES**

**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** Extremely 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. For large spills evacuate downwind areas as conditions warrant to prevent exposure and to allow vapors or fumes to dissipate.

### **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, for small spills add non-flammable absorbent in spill area. For large spills use foam 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.

**REPORTABLE QUANTITY (RQ):** Acetonitrile – 5000lbs; 1, 2 Epoxybutane – 100lbs. Blend - 450lbs.

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. 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. 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.

**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”.  
**BONDING AND GROUNDING:** SUBSTANCES WITH LOW ELECTROCONDUCTIVITY, WHICH MAY BE IGNITED BY ELECTROSTATIC SPARKS, SHOULD BE STORED IN CONTAINERS WHICH MEET THE BONDING AND GROUNDING GUIDELINES SPECIFIED IN NFPA 77-1983, RECOMMENDED PRACTICE ON STATIC ELECTRICITY. STORE AWAY FORM INCOMPATIBLE SUBSTANCES.

### **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°C - 25°C. Store large quantities only in cool, dry areas in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not contact with oxidizing materials. Keep containers closed when not in use. Do not take internally. Store in a well ventilated place, away from sources of ignition and direct sunlight. Store

at 15°C to 30°C (59°F to 86°F). In laboratory quantities, store away from oxidizing material, mineral acids, and chloroform. Store Acetonitrile in areas equipped with automatic sprinklers or fire extinguishing system. All Acetonitrile 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. **STORE IN ACCORDANCE WITH 29 CFR 1910.126.**

**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>Ingredient</b>	<b>CAS No.</b>	<b>% by WT. Range</b>	<b>Exposure Limits</b>
Acetonitrile	CAS 75-05-8 EC-No.200-835-2 Index-No.608-001-00-3 Reg.-No. 01-2119471307-38-XXXX	33.33	20ppm TWA (ACGIH) 20ppm TWA (NIOSH) 40ppm TWA (OSHA) 60ppm STEL (OSHA) 500ppm IDLH
tert-Butyl Alcohol	75-65-0 EC-No.200-889-7 Index # 603-005-00-1 Reg.-No. 01-2119444321-51-XXXX	33.33	100ppm TWA (ACGIH) 100ppm TWA (OSHA) 100ppm TWA (NIOSH) 150ppm STEL (NIOSH) 1600ppm (IDLH)
Butylene Oxide	106-88-7 EC-No.203-438-2 Index-No.603-102-00-9 Reg.-No. 01-2119449161-46-XXXX	22.22	2ppm TWA (WEEL)
Nitromethane	75-52-5 EC-No.200-876-6	11.11	20ppm TWA (ACGIH) 100ppm TWA (OSHA)



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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 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.

**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).

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 or for unknown vapor concentrations use NIOSH/MSHA approved positive pressure self-contained breathing apparatus (SCBA) with full face-piece.

**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: Fluorinated rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Splash contact Material: Nitrile rubber  
Minimum layer thickness: 0.4 mm  
Break through time: 35 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: APPEARANCE, COLOR AND ODOR:**

#### **Solvents Company Blend**

Appearance-----> Clear mobile liquid  
Color-----> Colorless  
Odor-----> Sweet ether odor  
Odor Threshold-----> No data available  
pH-----> No data available  
Molecular Weight-----> No data available  
Melting/Freezing Point-----> No data available  
Boiling Range -----> 176°F  
Specific Gravity-----> 0.819 @25°C  
Vapor Pressure-----> 74 mmHg@20°C (68°F)  
Vapor Density (air=1)-----> 2.5  
Water Solubility-----> 68%  
Partition Coefficient n-Octanol/Water-> No data available  
Evaporation Rate (Butyl Acetate=1)----> 1.48  
Flash Point-----> 5°C (41°F) - closed cup  
Upper Flammability Limit-----> 12.3% (V)  
Lower Flammability Limit-----> 3.4% (V)  
Auto-Ignition Temperature-----> No data available  
Decomposition Temperature-----> No data available  
Viscosity-----> No data available

Explosive Properties-----> No data available

Oxidizing Properties-----> 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)  
Stable under normal temperatures and pressures.

**10.3 POSSIBILITY OF HAZARDOUS REACTIONS:** Vapors may form flammable 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. Extremes of temperature and direct sunlight.

**10.5 INCOMPATIBLE MATERIALS:**  
Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. nitric acid, perchloric acid and hydrogen peroxide. Contact with strong acids can decompose this material and generate extremely flammable isobutylene.

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition products may include toxic oxides of carbon and cyanide gas.

## **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>** May cause moderate to severe eye irritation; Symptoms are burning sensation, pain, watering, and/or change of vision. Effects are reversible.

**Skin>** irritating; Harmful if absorbed through skin. Not a sensitizer. Symptoms are crusting, scaling, weeping and itching.

**Inhalation>** Irritation of the respiratory tract. Harmful if inhaled. Symptoms are nasal discharge, hoarseness, coughing, chest pain, and breathing difficulty. May cause symptoms of Central Nervous system depression, see Ingestion.

**Ingestion>** May be harmful if swallowed. Causes mouth and throat irritation. Can cause nausea, dizziness, headache, loss of appetite, gastrointestinal irritation

and diarrhea. Can cause central nervous system depression, mental sluggishness, collapse and coma.

**Chronic:** Repeated or prolonged exposure may irritate the mucous membranes. 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 eyes, respiratory tract, digestive tract, skin and central nervous system..

**Medical Conditions Aggravated by Exposure**> Skin contact may aggravate an existing dermatitis. May aggravate mucous membrane dysfunction. May adversely affect people with chronic eye conditions or respiratory tract diseases.

**ACUTE TOXICITY:**

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

Ingredient	Oral LD50 (Rat)	Skin LD50 (Rabbit)	Inhalation LC50	
Acetonitrile	1320-6690mg/kg	>2000mg/kg	3587ppm/4hr	
tert-butanol	2743mg/kg	>2000mg/kg	>14000ppm/4hr	
Butylene Oxide	500mg/kg	1741mg/kg	N.D.	
Nitromethane	1478mg/kg	N.D.	N.D.	

**ACETONITIRLE:**

**Skin corrosion/irritation:** Skin - Rabbit Result: No skin irritation (OECD Test Guideline 404)

**Serious eye damage/eye irritation:** Eyes - Rabbit Result: Irritating to eyes. (OECD Test Guideline 405)

**Respiratory or skin sensitization:** Buehler Test - Guinea pig - Did not cause sensitization on laboratory animals. (OECD Test Guideline 406)

**MUTAGENIC EFFECTS:** Tests for mutagenic activity in bacterial and mammalian cell cultures have been inconclusive. Germ cell mutagenicity Hamster ovary Result: negative Mutation in mammalian somatic cells. Ames test *S. typhimurium* Result: Not mutagenic in Ames Test

**Mutagenicity (micronucleus test) Mouse Result:** Positive results were obtained in some in vivo tests.

**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:** Embryo toxicity was observed in the offspring of pregnant rats, rabbits, and hamsters but only at concentrations that produced maternal toxicity.

**Specific target organ toxicity (STOT-SE) - Single Exposure (Globally Harmonized System):** May cause drowsiness or dizziness.

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

**ASPIRATION HAZARD:** No aspiration toxicity classification

**11.2 ADDITIONAL INFORMATION:**

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

**TERT-BUTYL ALCOHOL:**

**SKIN CORROSION/IRRITATION: Skin-Rabbit Result:** No skin irritation – 24 h (Draize Test)

**SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes Rabbit result:** Irritating to eyes – 24 h

**RESPIRATORY OR SKIN SENSITIZATION: Maximization Test - Guinea pig Result:** Did not cause sensitization on laboratory animals. (OECD Test Guideline 406)

**MUTAGENIC EFFECTS:** In Vitro no evidence; In vivo, no evidence

**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 on OSHA's list of regulated carcinogens.

In a drinking water study, t-butanol induced benign kidney tumors in male rats via an alpha-2microglobulin mode of action, a tumor mechanism not relevant to humans. In female mice, there was an increased incidence of benign thyroid tumors.

**REPRODUCTIVE TOXICITY:** No data available

**SPECIFIC TARGET ORGAN TOXICITY (STOT-SE) - Single Exposure (Globally Harmonized System):** Inhalation - May cause respiratory irritation.

Inhalation - May cause drowsiness or dizziness.

**SPECIFIC TARGET ORGAN TOXICITY (STOT-RE) - Repeated Exposure (Globally Harmonized System): no data available**

**ASPIRATION HAZARD: No data available**

**11.2 ADDITIONAL DATA: drying, cracking of the skin, Skin irritation**

**BUTYLENE OXIDE:**

**SKIN CORROSION/IRRITATION: Skin - Rabbit Result: Mild skin irritation - 24 h (OECD Test Guideline 404)**

**SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Moderate eye irritation – 24h**

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

**MUTAGENIC EFFECTS: Laboratory experiments have shown mutagenic effects.**

**CARCINOGEN STATUS:**

**IARC: 2B - Group 2B: Possibly carcinogenic to humans (1,2-Epoxybutane)**

**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.**

**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): May cause respiratory irritation.**

**SPECIFIC TARGET ORGAN TOXICITY (STOT-RE) - Repeated Exposure (Globally Harmonized System): no data available**

**ASPIRATION HAZARD: No data available**

**11.2 ADDITIONAL DATA: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea**

**NITROMETHANE:**

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

**SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Mild eye irritation.**

**RESPIRATORY OR SKIN SENSITIZATION: Intra-cutaneous test - Guinea pig Result: Does not cause skin sensitization.**

**MUTAGENIC EFFECTS: Hamster ovary Result: negative (OECD Test Guideline 474) Mouse - male and female Result: negative**

**CARCINOGEN STATUS: This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.**

**IARC: 2B - Group 2B: Possibly carcinogenic to humans (Nitromethane)**

**NTP: Reasonably anticipated to be a human carcinogen (Nitromethane)**

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.

Carcinogenicity - Rat - Inhalation

Tumorigenic: Carcinogenic by RTECS criteria. Skin and Appendages: Other: Tumors.

Carcinogenicity - Mouse - Inhalation

Tumorigenic: Carcinogenic by RTECS criteria. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye: Tumors. Liver: Tumors.

REPRODUCTIVE TOXICITY: No data available

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: Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer.

## **12. ECOLOGICAL INFORMATION**

**ACETONITRILE:**

**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 AQUATIC TOXICITY (Acute):**

Toxicity to fish:

LC50 - Pimephales promelas (fathead minnow) - 1,640.00 mg/l-96h

Toxicity to daphnia and other aquatic invertebrates:

EC50 - Daphnia magna (Water flea) - 3,600.00 mg/l - 48 h

NOEC - Daphnia magna (Water flea) - 640 mg/l - 14 d

**12.2 PERSISTANCE AND DEGRADABILITY:**

84 % - Readily biodegradable.

(OECD Test Guideline 301C)

**12.3 BIOACCUMULATIVE POTENTIAL:** No bioaccumulation is to be expected (log Pow <= 4).

**12.4 MOBILITY IN SOIL:** Not expected to adsorb on soil.

**12.5 RESULTS OF PBT AND vPvT :**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6 OTHER ADVERSE EFFECTS:** Avoid release to the environment.

**TERT BUTYL ALCOHOL:**

**12.1 AQUATIC TOXICITY**

**Toxicity to fish:**

LC50 7-day Fish guppy 3550mg/L

LC50 96-hour Golden orfe 6140mg/L

LC50 24-hours goldfish >5000mg/L

Toxicity to daphnia and other invertebrates:

EC50 48-hours Daphnia magna (water flea) 5504mg/L

IC10 green algae 1186mg/L

EC50 bacteria 11263mg/L

**12.2 PERSISTENCE AND DEGRADABILITY:** Degradation: Under aerobic conditions this material is readily biodegradable. Atmospheric photochemical degradation is expected to range from 2.5 days to 25 days.

Biological Oxygen Demand (BOD): No data available

**12.3 BIOACCUMULATIVE POTENTIAL:** This material is not expected to adsorb onto soils or sediments. When released into the environment, this material will volatilize rapidly. This material is not expected to bio-accumulate but is expected to biodegrade.

Bio-concentration Factor (BCF): No data available

**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

**BUTYLENE OXIDE:**

**12.1 Toxicity** No data available

**12.2 Persistence and degradability** No data available

**12.3 Bioaccumulative potential** No data available

**12.4 Mobility in soil** No data available

**12.5 Results of PBT and vPvB assessment** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6 Other adverse effects:** Harmful to aquatic life with long lasting effects.

**NITROMETHANE:**

**12.1 AQUATIC TOXICITY:**

Toxicity to fish:

LC50 - Danio rerio (zebra fish) - 460 mg/l - 48 h static test

LC50 - Pimephales promelas (fathead minnow) - > 659.2 mg/l - 96 h static test

Toxicity to daphnia and other aquatic invertebrates:

EC50 - Daphnia magna (Water flea) - 103 mg/l - 48 h immobilization (OECD Test Guideline 202)

Toxicity to Algae:

IC50 - EC50 - Pseudokirchneriella subcapitata (green algae) - > 102 mg/l - 72 h growth inhibition (OECD Test Guideline 201)

**12.2 PERSISTENCE AND DEGRADABILITY:** aerobic - Exposure time 28 d Result: 9.9 % - Not readily biodegradable. (OECD Test Guideline 301D)

**12.3 BIOACCUMULATIVE POTENTIAL:** No data available



**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

### **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 number is: D001.

If the waste is a spent solvent, the appropriate spent solvent code should be used.

**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-----> UN1992**

**14.2 USDOT Shipping Name-----> Flammable Liquid n.o.s.  
(Solvents Company Blend)**

**14.3 USDOT Hazard Classification-----> 3 (Flammable Liquid)**

**USDOT Label Codes-----> 3, 6.1**

**14.4 USDOT Package Code-----> II**

**14.5 Marine Pollutant-----> Yes**

**14.6 Special precautions for user-----> No**

**Emergency Response Guide-----> 131**

**Reportable quantity-----> 450lbs. - Blend**

**Sea Transport (IMDG)**

**14.1 ID Number-----> UN1992**

14.2 Proper shipping name-----> FLAMMABLE LIQUIDS, N.O.S.  
(SOLVENTS COMPANY BLEND)  
14.3 Hazard Classification-----> 3  
Label Codes-----> 3  
14.4 Package Code-----> II  
14.5 Marine Pollutant-----> Yes  
14.6 Special precautions for user-----> No  
EMS-Number-----> F-E, S-D

**Air Transport (IATA)**

14.1 ID Number-----> UN1992  
14.3 Hazard Classification-----> 3 Flammable Liquid n.o.s.  
(Solvents company blend)  
Label Codes-----> 3  
14.4 Package Code-----> II  
14.5 Environmental hazard-----> No  
14.6 Special precautions for user-----> No

**15. REGULATORY INFORMATION**

**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 – Acetonitrile CAS-No. 75-05-8; tert-Butyl Alcohol CAS 75-65-0; 1, 2-Epoxybutane CAS-No. 106-88-7**

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

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)**

**SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Not Listed**

**Reportable Quantity –**

**Acetonitrile CAS-No. 75-05-8 - 5000lbs.**

**1,2-Epoxybutane CAS-No. 106-88-7 – 100lbs.**

**SECTION 101(14) Reportable Quantity: 450lbs - Blend**

### Massachusetts Right to Know Components

Acetonitrile CAS-No. 75-05-8  
tert-Butyl alcohol CAS-No.75-65-0  
1, 2-Epoxybutane CAS-No. 106-88-7  
Nitromethane CAS-No. 75-52-5

### Pennsylvania Right to Know Components

Acetonitrile CAS-No. 75-05-8  
tert-Butyl alcohol CAS-No.75-65-0  
1,2-Epoxybutane CAS-No. 106-88-7  
Nitromethane CAS-No. 75-52-5

### New Jersey Right to Know Components

Acetonitrile CAS-No. 75-05-8  
tert-Butyl alcohol CAS-No.75-65-0  
1, 2-Epoxybutane CAS-No. 106-88-7  
Nitromethane CAS-No. 75-52-5

### California Prop. 65 Components

**WARNING!** This product contains a chemical known to the State of California to cause cancer. Nitromethane CAS-No. 75-52-5

### TSCA (Toxic Substance Control Act)

Acetonitrile CAS-No. 75-05-8; tert-Butyl alcohol CAS-No.75-65-0  
1,2-Epoxybutane CAS-No.106-88-7;Nitromethane CAS-No. 75-52-5  
are listed on the TSCA Inventory.

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

## **16. OTHER INFORMATION:**

### Hazard Rating:

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

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

### Hazard statement(s) from Section 2 and 3:

H225 Highly flammable liquid and vapor.  
H302 + H312 Harmful if swallowed or in contact with skin  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.

**H351 Suspected of causing cancer.**  
**H403 Harmful to aquatic life.**  
**H412 Harmful to aquatic life with long lasting effects.**

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**Revision Date-----> November 27, 2018**  
**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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