

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

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME: LN BLEND

PRODUCT NUMBER(S): 190900

TRADE NAMES/SYNONYMS: BLEND

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

RECOMMENDED USE: Manufacture of substances. 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

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 3), H311

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

Specific target organ toxicity - single exposure (Category 1), organs, H370

2.2 GHS Label elements, including precautionary statements



Pictogram

GHS02 GHS06 GHS07 GHS08

Signal word **DANGER**

Hazard statement(s)

H225 Highly flammable liquid and vapor.

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled

H316 Causes mild skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H370 Causes damage to organs

Precautionary statement(s)

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P304 + P340 IF INHALED Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P305 + P361 + P353 IF ON SKIN (or hair) Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower.

P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

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 ventilate place. Keep cool.

P405 Store locked up.

Disposal:

P591 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: Not applicable

3.2 MIXTURE:

Ingredient	CAS Number	% by wt.	CLASSIFICATION
Acetone	67-64-1 EC-No.200-662-2 Index-No.606-001-00-8 Reg.-No. 01-2119471330-49-XXXX	70	Flammable liquids (Category 2), H225 Skin irritation (Category 3), H316 Eye irritation (Category 2A), H319 STOT-SE (Category 3), central nervous system, H335
Methanol	67-56-1 EC-No.200-659-6 Index-No.603-001-00-X Reg.-No. 01-2119433307-44-XXXX	30	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), organs, H370

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

INHALATION:

ACETONE: IRRITANT/NARCOTIC. 20,000 PPM IMMEDIATELY DANGEROUS TO LIFE OR HEALTH.

METHYL ALCOHOL (METHANOL):

NARCOTIC/NEUROTOXIN. 25,000PPM IMMEDIATELY DANGEROUS TO LIFE OR HEALTH.

****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:

ACETONE: IRRITANT. SMALL AMOUNTS MAY BE ABSORBED THROUGH INTACT SKIN.

METHYLALCOHOL (METHANOL): IRRITANT/NARCOTIC/NEUROTOXIN.

****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:

ACETONE: IRRITANT.

METHANOL: IRRITANT

****FIRST AID- Wash eyes immediately with large amounts of 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:

ACETONE: NARCOTIC.

METHYL ALCOHOL (METHANOL): NARCOTIC/NEUROTOXIN.

****FIRST AID- Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Get medical attention immediately.**

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

Inhalation: Exposure may cause lung irritation and cough. Irritation of the mucous membranes, difficulty breathing, sharp pains, irritation to skin. Central nervous system depression is the most common effect, resembling intoxication by ethyl alcohol. Excitation is followed by impaired motor coordination, slurred speech, sensory disturbances such as double vision and vertigo, flushing of the face, rapid pulse, and sweating. Nausea and vomiting are common.

Eye: Vapors are irritating to eyes, can cause violent inflammation.

Ingestion: Effects on the eye include blurred or dimmed vision, dilated perception, photophobia, and optic nerve atrophy. Other symptoms include dryness of the mouth and the throat, headache, sleepiness, dizziness, light headedness, weakness, and loss of energy. Very high exposures may cause unconsciousness, coma, or death. Kidney toxicity may occur but is rare following acute exposure. Post-alcoholic headache and gastritis are common in recovery.

Skin: Contact may result in redness, irritation, and dermatitis since acetone has a drying effect on the skin. Contact with eyes can result in irritation and eye injury.

Chronic Effects: For Acetone: Irritation of the eyes, nose, and throat are the most common problems associated with chronic exposure. For Methanol: Repeated or prolonged exposure may cause effect as in acute ingestion, headaches, diminution of vision and enlargement of the liver, defatting of the skin resulting in erythema, scaling and dermatitis. Central nervous system effects such as dizziness and sleepiness can occur, as can dryness, irritation, and inflammation of the skin.

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

Specific details on antidote:

****ANTIDOTE**:** The following antidote(s) have 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. This is especially true with a blended product.

METHANOL POISONING:

Give ethanol, 50% (100 proof), 1.5 ml/kg orally initially, diluted to no more than 5% solution, followed by 0.5-1.0 ml/kg every 2 hours orally or intravenously for 4 days in order to reduce metabolism of methanol and to allow time for its excretion. Blood ethanol level should be in the range of 1-1.5 mg/ml (Dreisbach, Handbook of Poisoning, 12th ed.). Antidote should be administered by qualified medical personnel.

Oral or intravenous administration of 4-methylpyrazole inhibits alcohol dehydrogenase and has been used effectively as an antidote for methanol or ethylene glycol poisoning (Ellenhorn and Barceloux, Medical Toxicology).

5. FIRE FIGHTING MEASURES

FLASH POINT: 1.7°C (35°F)

LOWER EXPLOSIVE LIMIT: 3.5% (V)

AUTOIGNITION TEMP.: 465°C (869°F)

UPPER EXPLOSIVE LIMIT: 19.9% (V)

UNIFORM FIRE CODE: Flammable Liquid Class IB

SUITABLE EXTINGUISHING MEDIA: DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY OR ALCOHOL-RESISTANT FOAM (1990 Emergency Response Guidebook, DOT P 5800.5). FOR LARGER FIRES, USE WATER SPRAY, FOG OR ALCOHOL-RESISTANT FOAM (1990 Emergency Response Guidebook, DOT P 5800.5). ALCOHOL FOAM (NFPA 325M, Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids, 1991).

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. Highly dangerous fire hazard when exposed to heat, sparks, flame, or oxidants. This product is extremely flammable and its vapors form explosive mixtures with air. Containers may explode in heat of fire. Water solutions may still be flammable because of released vapors.

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.

5.3 ADVICE FOR FIREFIGHTERS: Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind. Do not enter fire area without structural fire fighter's protective equipment including NIOSH approved self contained breathing apparatus in positive pressure mode. Use water spray to knock down vapors. Use halon, carbon dioxide extinguisher or dry powder for small fires. Large fires are best controlled by alcohol foam, fog, and water spray. 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. Stay away from ends of tanks. 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. Isolate for 1/2 mile in all directions if tank, rail car or tank truck is involved in fire (1990 Emergency Response Guidebook, DOT P 1800.5, guide page 26). Extinguish only if fire can be stopped. Use flooding amounts of water as a fog; solid streams may be ineffective. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing vapors; keep upwind. If fire is uncontrollable or containers are exposed to direct flame, water may be ineffective (NFPA 325M, Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids, 1991). Fire fighters should wear full protective clothing and NIOSH approved self-contained breathing apparatus with full face-piece operated in the pressure demand or other positive pressure mode. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures. Do Not Use: Water in straight hose stream will scatter and spread fire and should not be used.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Extremely Flammable; 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. 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 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): Methanol and Acetone - 5000 POUNDS; 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. Acetone is a class IB flammable liquid (NFPA). 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. 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.

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. Recommended storage temperature: 15 - 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.

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:

Ingredient	CAS Number	% by wt.	Exposure Limits
Acetone	67-64-1 EC-No.200-662-2 Index-No.606-001-00-8 Reg.-No. 01-2119471330-49-XXXX	70	750 PPM TWA (OSHA) 1000ppm STEL (OSHA) 750ppm TWA (ACGIH) 1000ppm STEL (ACGIH) 250ppm TWA (NIOSH) 10hr
Methanol	67-56-1 EC-No.200-659-6 Index-No.603-001-00-X Reg.-No. 01-2119433307-44-XXXX	30	200ppm TWA (OSHA) 250ppm STEL (OSHA) 200ppm TWA (ACGIH) 250ppm STEL (ACGIH) 250 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

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 following respirators and maximum use concentrations are recommendations by the U.S. Department of Health and Human Services, NIOSH Pocket Guide to Chemical Hazards; NIOSH criteria documents or by the U.S. Department of Labor, 29 CFR 1910 Subpart Z., 1910.132, 1910.134

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):

- 200 PPM-** Any chemical cartridge respirator with organic vapor cartridge(s).
Any powered, air-purifying respirator with organic vapor cartridge(s).
Any supplied-air respirator.
Any self-contained breathing apparatus.
- 6250 PPM-** Any supplied-air respirator operated in a contained-flow mode.
- 12,500 PPM-** Any air-purifying full-face piece respirator (gas mask) with a chin style, front- or back- mounted organic vapor canister.
Any self-contained breathing apparatus with a full-face piece.
Any supplied-air respirator with a full-face piece.
- 20,000 PPM-** Any supplied-air respirator that has a full-face piece and is operated in a pressure-demand or other positive-pressure mode.
- ESCAPE-** Any air-purifying, full-face piece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister.
Any appropriate escape-type, self-contained breathing apparatus.

BODY CLOTHING: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance.

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

Full contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 31 min

HYGIENE: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

EYE /FACE PROTECTION: Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Lunn Blend	
APPEARANCE:	Clear volatile liquid
COLOR:	Colorless
ODOR:	Pungent ketone odor
ODOR THRESHOLD:	20 PPM
pH:	No data Available
MOLECULAR WEIGHT:	No data available
MELTING POINT:	No data available
BOILING RANGE:	56-64°C (133-147°F)
SPECIFIC GRAVITY:	0.7952
VAPOR PRESSURE:	156 mm Hg @ 20°C (68.0°F)
VAPOR DENSITY:	1.73
WATER SOLUBILITY:	Soluble
PARTITION COEFFICIENT N- OCTANOL/WATER	No data available
FLASH POINT:	1.7°C (35°F)
EVAPORATION RATE (BUTYL ACETATE=1):	4.87
UPPER FLAMMABILITY LIMIT:	19.9% (V)
LOWER FLAMMABILITY LIMIT:	3.5% (V)
AUTO IGNITION TEMPERATURE:	465°C (869°F)
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: STABLE UNDER NORMAL TEMPERATURES AND PRESSURES.

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, flames and sparks. Extremes of temperature and direct sunlight.

10.5 INCOMPATIBILITIES- WITH ACETONE:

ACIDS: Incompatible

AMINES (ALIPHATIC): Incompatible

BROMINE: Violent reaction with excess amounts of bromine

BROMINE TRIFLUORIDE: Explosion on contact

BROMOFORM: Violent reaction in presence of bases (e.g. potassium hydroxide)

CHLOROFORM: Violent reaction in presence of a base

CHROMIUM TRIOXIDE: Ignition on contact at ambient temperature

CHROMYL CHLORIDE: Incandescent reaction

DIOXYGEN BIFLUORIDE + SOLID CARBON DIOXIDE: Explosion at -78 C

HEXACHLOROMELANINE: Possible explosion

HYDROGEN PEROXIDE: Explosion

NITRIC ACID: Ignition

NITRIC + ACETIC ACID MIXTURE: Possible explosion

NITRIC + SULFURIC ACID MIXTURE: Violent oxidation

NITROSYL CHLORIDE: Explosive reaction

NITROSYL PERCHLORATE: Ignition and explosion

NITRYL PERCHLORATE: Ignition and explosion hazard

OXIDIZERS (STRONG): Fire and explosion hazard

PERMONOSULFURIC ACID: Explosion

PLASTICS: Incompatible

PLATINUM + NITROSYL CHLORIDE: Possible explosion

POTASSIUM-TERT-BUTOXIDE: Ignition

RAYON: Incompatible

SODIUM HYPOBROMITE: Explosion

SODIUM HYPOIODITE: Possible explosion

SULFUR DICHLORIDE: Violent reaction

SULFURIC ACID AND POTASSIUM BICHROMATE: Ignition

THIODIGLYCOL + HYDROGEN PEROXIDE: Possible explosion

THIOTRIAZYL PERCHLORATE: Possible explosion

1,1,1-TRICHLOROETHANE: Exothermic condensation by a basic catalyst

TRICHLOROMELANINE: Possible explosion

See also ketones.

KETONES:

ACETALDEHYDE: Violent condensation reaction

NITRIC ACID + HYDROGEN PEROXIDE: Formation of explosive product

PERCHLORIC ACID: Violent decomposition

DECOMPOSITION: Thermal decomposition products may include toxic oxides of carbon.

POLYMERIZATION: Hazardous polymerization has not been reported under

normal temperatures and pressures.

INCOMPATIBILITIES - METHYL ALCOHOL (METHANOL):

ACETYL BROMIDE: Violent reaction with formation of hydrogen bromide.

ALKYLALUMINUM SOLUTIONS: Violent reaction.

ALUMINUM: Corrodes.

BARIUM PERCHLORATE: Distillation yields highly explosive alkyl perchlorate.

BERYLLIUM HYDRIDE: Violent reaction, even at -196°C.

BROMINE: Vigorously exothermic reaction.

CALCIUM CARBIDE: Violent reaction.

CHLORINE: Possible ignition and explosion hazard.

CHLOROFORM AND SODIUM HYDROXIDE: Explosive reaction.

CHROMIUM TRIOXIDE (CHROMIC ANHYDRIDE): Possible ignition.

CYANURIC CHLORIDE: Violent reaction.

DICHLOROMETHANE: Possible ignition and explosion.

DIETHYL ZINC: Possible ignition and explosion.

HYDROGEN PEROXIDE + WATER: Explosion hazard.

IODINE + ETHANOL + MERCURIC OXIDE: Explosion hazard.

LEAD: Corrodes.

LEAD PERCHLORATE: Explosion hazard.

MAGNESIUM: Violent reaction

MAGNESIUM (POWDERED): Mixtures are capable of detonation.

METALS: Incompatible.

NICKEL: Possible ignition in the presence of nickel catalyst.

NITRIC ACID (CONCENTRATED): Mixtures of greater than 25% acid may decompose violently.

OXIDIZERS (STRONG): Fire and explosion hazard.

PERCHLORIC ACID: Explosion hazard.

PHOSPHOROUS TRIOXIDE: Possible violent reaction and ignition.

PLASTICS, RUBBER, COATINGS: May be attacked.

POTASSIUM: Possible dangerous reaction.

POTASSIUM HYDROXIDE + CHLOROFORM: Exothermic reaction.

POTASSIUM TERT-BUTOXIDE: Fire and explosion hazard.

SODIUM + CHLOROFORM: Possible explosion.

SODIUM HYPOCHLORITE: Explosion hazard.

SODIUM METHOXIDE + CHLOROFORM: Violent reaction.

SULFURIC ACID: Fire and explosion hazard.

ZINC: Explosion hazard.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products may include toxic 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 may cause lung irritation and cough. Irritation of the mucous membranes, difficulty breathing, sharp pains, irritation to skin. Central nervous system depression is the most common effect, resembling intoxication by ethyl alcohol. Excitation is followed by impaired motor coordination, slurred speech, sensory disturbances such as double vision and vertigo, flushing of the face, rapid pulse, and sweating. Nausea and vomiting are common.

Eye: Vapors are irritating to eyes, can cause violent inflammation .

Ingestion: Effects on the eye include blurred or dimmed vision, dilated perception, photophobia, and optic nerve atrophy. Other symptoms include dryness of the mouth and the throat, headache, sleepiness, dizziness, light headedness, weakness, and loss of energy. Very high exposures may cause unconsciousness, coma, or death. Kidney toxicity may occur but is rare following acute exposure. Post-alcoholic headache and gastritis are common in recovery.

Skin: Contact may result in redness, irritation, and dermatitis since acetone has a drying effect on the skin. Contact with eyes can result in irritation and eye injury.

Chronic Effects: For Acetone: Irritation of the eyes, nose, and throat are the most common problems associated with chronic exposure. For Methanol: Repeated or prolonged exposure may cause effect as in acute ingestion, headaches, diminution of vision and enlargement of the liver, defatting of the skin resulting in erythema, scaling and dermatitis. Central nervous system effects such as dizziness and sleepiness can occur, as can dryness, irritation, and inflammation of the skin.

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	
Acetone	5800mg/kg	7426mg/kg	50100ppm/6hr	

Methanol	1187mg/kg -2769mg/kg	17199mg/kg	87.6mg/L/6hr
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ACETONE:

Additional irritation and Toxicity data:

IRRITATION DATA: 395 MG open skin-rabbit mild; 500 MG/24 hours skin-rabbit mild; 500 PPM eye-human; 20 MG eye-rabbit severe; 20 MG/24 hours eye-rabbit moderate. 3000 MG/KG oral-mouse LD50, 5340 MG/KG oral-rabbit LD50

TOXICITY DATA: 500 PPM inhalation-human TCLD; 110 GM/H3/1 hour inhalation-mouse LCLO; 20 GM/KG skin-rabbit LD50; 2857 MG/KG oral-man TDLO; 8 GM/KG oral-dog LDLO; 5800 MG/KG oral-rat LD50;;; 5 GM/KG subcutaneous-dog LDLO; 5000 MG/KG subcutaneous-guinea pig LDLO; 5500 MG/KG intravenous-rat LD50; 4 GM/KG intravenous-mouse LDLO; 1576 MG/KG intraperitoneal-mouse LD50; 8 GM/KG intraperitoneal-dog LDLO; 1159 MG/KG unreported-man LDLO; mutagenic data (RTECS); reproductive effects data (RTECS).

SKIN CORROSION/IRRITATION: Skin - Rabbit Result: Mild skin irritation - 24 h

SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Eye irritation 24 h

RESPIRATORY OR SKIN SENSITIZATION: Guinea pig Result: Does not cause skin sensitization.

MUTAGENIC EFFECTS: No data available.

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 (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 data available.

11.2 ADDITIONAL INFORMATION:

AT INCREASED RISK FROM EXPOSURE: Persons with chronic respiratory or skin diseases. Alcohol may enhance the toxic effects.

METHYL ALCOHOL (METHANOL):

Additional irritation and Toxicity data:

IRRITATION DATA: 20 MG/24 hours skin-rabbit moderate: 40 MG eye-rabbit

moderate; 100 MG/24 hours eye-rabbit moderate.

2769 MG/KG oral-rat LD50

128mg/L/4 hours inhalation-rat LC50;

17199 MG/KG dermal-rabbit LD50;

TOXICITY DATA: 86,000 MG/M3 inhalation-human TCLO; 300 PPM inhalation-human TCLO; 1000 PM inhalation-monkey LCLO; 50 GM/M3/2 hours inhalation-mouse LCLO; 44,000 MG/M3/6 hours inhalation-cat LCLO; 15,800 MG/KG skin-rabbit LD50; 393 MG/KG skin-monkey LDLO; 428 MG/KG oral-human LDLO; 143 MG/KG oral-human LDLO; 6422 MG/KG oral-man LDLO; 3429 MG/KG oral-man TDLO; 4 GM/KG oral-woman TDLO; 7 GM/KG oral-monkey LD50;; 7300 MG/KG oral-mouse LD50; 14,200 MG/KG oral-rabbit LD50; 7500 MG/KG oral-dog LDLO; 9800 MG/KG subcutaneous-mouse LD50; 2131 MG/KG intravenous-rat LD50; 4710 MG/KG intravenous-mouse LD50; 8907 MG/KG intravenous-rabbit LD50; 4641 MG/KG intravenous-cat LDLO; 7429 MG/KG intraperitoneal-rat LD50; 10,765 MG/KG intraperitoneal-mouse LD50; 3556 MG/KG intraperitoneal-guinea pig LD50; 8555 MG/KG intraperitoneal-hamster LD50; 868 MG/KG unreported-man LDLO; mutagenic data (RTECS); reproductive effects data (RTECS).

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.

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

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

Genotoxicity in vitro - in vitro assay - fibroblast – negative. Genotoxicity in vivo - mouse - male and female - Intraperitoneal - negative

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.

ASPIRATION HAZARD: No data available.

11.2 ADDITIONAL INFORMATION:

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

12. ECOLOGICAL INFORMATION

This blend has not been evaluated for ecological effects. The data following is for components.

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.

ACETONE

12.1 AQUATIC TOXICITY (Acute):

Toxicity to fish:

LC50 - *Oncorhynchus mykiss* (rainbow trout) - 5,540.00 mg/l - 96 h

LC50 - *Leuciscus idus* (Golden Orfe) – 11300 mg/l - 48 h

LC50 – *Gambusia affinis* (Moskquito Fish) – 13000 mg/l – 48 h

LC50 – *Pimphales promelas* (Fathead Minnow) – 6210 mg/l – 96 h

Toxicity to aquatic invertebrates:

EC50 - *Daphnia magna* (Water flea) - 8800 mg/l - 48 h

Toxicity to Algae:

EC50 – Algae - 3400mg/l – 48 h

Toxicity to Microorganisms:

EC50 Bacteria – 1700 mg/l – 16 h

12.2 PERSISTANCE AND DEGRADABILITY:

Result 91%- Readily biodegradable; (OECD Test Guideline 301B)

Biological Oxygen Demand: 1850 mg/g, 5 h

Oxygen Demand (Theoretical): 2200 mg/g

Carbon Dioxide (Theoretical): 2273 mg/mg

Process	Degradation rate	Time
Biotic/abiotic	91%	28 days
Carbon dioxide generation	90.9%	28 days

12.3 BIOACCUMULATIVE POTENTIAL:

log Pow -.024

Will not bio-accumulate.

Bio-centration Factor: 0.69, Method of testing BCF.

12.4 MOBILITY IN SOIL:

SURFACE TENSION: 26.2 mN/m 0°C

This product is water soluble and may spread in water systems.

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 toxic to aquatic life.

METHANOL

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 PERSISTANCE AND DEGRADABILITY: 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: 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.

13. DISPOSAL GUIDELINES

13.1 WASTE TREATMENT METHODS:

The waste material should be treated and/or disposed of at site authorized to handle hazardous chemical waste. Appropriate Federal, State and Local Regulatory Authorities should be contacted before discharge, treatment or disposal of waste material.

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: Acetone: U002 and Methanol: U154

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, Toxic, n.o.s.
- 14.3 USDOT Hazard Classification-----> 3 (Flammable Liquid)
 - USDOT Label Codes-----> 3, 6.1
- 14.4 USDOT Package Code-----> II
- 14.5 Marine Pollutant-----> No
- 14.6 Special precautions for user-----> None
 - Emergency Response Guide-----> 131
 - Reportable quantity-----> Acetone: 5000lbs. Methanol: 5000lbs.

Sea Transport (IMDG)

- 14.1 ID Number-----> UN1992
- 14.2 Proper shipping name-----> FLAMMABLE LIQUID, TOXIC N.O.S.
- 14.3 Hazard Classification-----> 3, 6.1
 - Label Codes-----> 3, 6.1
- 14.4 Package Code-----> II
- 14.5 Marine Pollutant-----> No
- 14.6 Special precautions for user-----> Yes
 - EMS-Number-----> F-E, S-D

Air Transport (IATA)

- 14.1 ID Number-----> UN1992
- 14.2 Proper shipping name-----> Flammable Liquid, Toxic n.o.s.
- 14.3 Hazard Classification-----> 3, 6.1
 - Label Codes-----> 3, 6.1
- 14.4 Package Code-----> II
- 14.5 Environmental hazard-----> None
- 14.6 Special precautions for user-----> None

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 311: Hazard Categorization (40 CFR 370) – Acute Health Hazard, Chronic Health Hazard, and Fire Hazard

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

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

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Listed

Reportable Quantity - 5,000 pounds.

SECTION 101(14) Reportable Quantity: Methanol 5000lbs. and Acetone 5,000lbs.

RCRA (Resource Conservation and Recovery Act.)

40 CFR 261.33 Hazardous Waste Numbers: U002 and U154

Massachusetts Right to Know Components

Acetone CAS-No. 67-64-1

Methanol CAS-No. 67-56-1

Pennsylvania Right to Know Components

Acetone CAS-No. 67-64-1

Methanol CAS-No. 67-56-1

New Jersey Right to Know Components

Acetone CAS-No. 67-64-1

Methanol CAS-No. 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

DEA (Drug Enforcement Agency)

Acetone is subject to the Chemical Diversion and Trafficking Act of 1988 and subject to certain record keeping and reporting requirements. (21 CFR 1310 and 1313)

TSCA (Toxic Substance Control Act)

Acetone and Methanol are listed on the TSCA Inventory.

FOREIGN INVENTORY STATUS:

Canadian DSL (Domestic Substances List) - Methanol and Acetone Listed

EINECS (European Inventory of Existing Commercial Chemical Substances) -

Methanol and Acetone Listed

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has not 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=0
HMIS RATINGS (SCALE 0-4): Health=2 Fire=3 Reactivity=0 PPE=H

Hazard statement(s) from Section 2 and 3:

H225 Highly flammable liquid and vapor.

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled

H316 Causes mild skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H370 Causes damage to organs

Date of Preparation----->April 10, 2001

Revision Number----->1.7

Revision Content----->Updated Section 14

Revision Date-----> June 11, 2020

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
EC-50 - Effective Concentration
EPA - U.S. Environmental Protection Agency
HMIS - Hazardous Materials Information System
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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