

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

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME -----> **Flexographic Solvent**
Art No.199-16-04-033

PRODUCT NUMBER(S)-----> 163000
TRADE NAMES/SYNONYMS -----> Blend

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

RECOMMENDED USE: Solvent Blend for printing.
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 3), H226
Reproductive toxicity (Category 1B), H360
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336
Serious eye damage (Category 1), H319

2.2 GHS Label elements, including precautionary statements



Pictogram

Signal word: Danger

Hazard statement(s)

H226 Flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H360 May damage fertility or the unborn child.

Precautionary statement(s)

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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.

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

P280 Wear protective gloves/ eye protection/ face protection.

P281 Use personal protective equipment as required.

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.

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.

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.

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
1-Methoxy-2-Propanol EC-No.203-539-1 Index-No.603-064-00-3 Reg.-No. 1-2119457435-35-XXXX	107-98-2	86	Flammable liquids (Category 3), H226 Reproductive toxicity (Category 1B), H360 STOT-SE (Category 3) Central Nervous System, H336
Diacetone Alcohol EC-No.204-626-7 Index-No.603-016-00-1 Reg.-No. 1-2119473975-21-XXXX	123-42-2	9.5	Flammable liquids (Category 3), H226 Serious eye damage (Category 1), H319
2-Methoxy-1-Propanol EC-No.216-455-5 Index-No.603-106-00-0	1589-47-5	4.5	Flammable liquids (Category 3), H226 Skin irritation (Category 2), H315 Serious Eye Damage (Category 1), H318 Reproductive toxicity (Category 1B), H360 STOT-SE (Category 3) Central Nervous system, H336

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

INHALATION: Flexographic Solvent

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

SKIN CONTACT: Flexographic Solvent

****FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with waterless cleaner then soap and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). Prompt action is essential. Get medical attention immediately.**

EYE CONTACT: Flexographic Solvent

****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: Flexographic Solvent

****FIRST AID- Do not induce vomiting. Risk of damage to lungs
exceeds poisoning Never give anything by mouth to an unconscious
person. Rinse mouth with water. Small amounts, which enter the
mouth should be rinsed out until taste is gone. Get medical attention
immediately.**

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

Eye: Moderately irritating; Symptoms include burning sensation, pain, watering and/or change of vision.

Skin: Possible systemic toxicity by skin absorption;

Inhalation: May cause irritation of the respiratory tract. Symptoms of exposure may include: Nasal discharge, hoarseness, coughing, chest pain and breathing difficulty. Nausea headache or dizziness. Prolonged overexposure may cause coughing, shortness of breath, dizziness and intoxication;

Ingestion: If swallowed in large quantities this product would likely cause gastrointestinal tract irritation with nausea, vomiting, lethargy, or diarrhea.

Chronic:

Inhalation: Prolonged overexposure to either vapor or mist may cause coughing, shortness of breath, dizziness and stupor. Repeated or prolonged exposure may irritate the mucous membranes.

Medical Conditions Aggravated by Exposure: Significant exposure may adversely affect people with chronic disease of the central nervous system, respiratory tract, skin, eyes, and digestive tract. Overexposure may cause local irritation at the site of exposure.

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: 31.7°C 89°F TCC

LEL %:2.9 (V)

AUTO-IGNITION TEMP: N.D.

UEL %:11.5 (V)

UNIFORM FIRE CODE: Flammable Liquid Class IC

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. 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.

5.3 ADVICE FOR FIREFIGHTERS: Shut off source. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion when exposed to extreme heat. Keep personnel removed from and upwind of the fire. Wear full fire-fighting turnout gear and a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) for confined spaces or anywhere there is potential for exposure to vapors or products of combustion. 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/MSHA approved self-contained breathing apparatus (SCBA) 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 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. 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. 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, 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): Diacetone Alcohol – 5000lbs, Blend – 52631lbs. (calculated).

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. 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. Forms explosive peroxides on prolonged storage. May form peroxides on contact with air. Storage class (TRGS 510): Flammable liquids.

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 No.	% by WT. Range	EXPOSURE LIMITS
1-Methoxy-2-Propanol	107-98-2	86	100ppm TWA (ACGIH)
	EC-No.203-539-1		100ppm TWA (NIOSH)
	Index-No.603-064-00-3		150ppm STEL (ACGIH)
	Reg.-No. 1-2119457435-35-XXXX		
Diacetone Alcohol	123-42-2	9.5	50ppm TWA (ACGIH)
	EC-No.204-626-7		50ppm TWA (NIOSH)
	Index-No.603-016-00-1		50ppm TWA (OSHA)
	Reg.-No. 1-2119473975-21-XXXX		75ppm STEL (ACGIH)

2-Methoxy-1-Propanol	1589-47-5	4.5	N.E.
	EC-No.216-455-5		
	Index-No.603-106-00-0		

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 not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA):

For vapor concentrations 1 to 10 times exposure limits, an air purifying NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times OSHA TWA or PEL and in confined areas use NIOSH/MSHA approved positive pressure full face-piece supplied air respirator (SCBA).

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: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Splash contact

Material: Nature latex/chloroprene

Minimum layer thickness: 0.6 mm
Break through time: 30 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. 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:

Flexographic Solvent Blend

APPEARANCE:	Clear liquid
COLOR:	Colorless
ODOR:	Mild ketone odor
ODOR THRESHOLD:	No data available
pH:	No data available
MOLECULAR WEIGHT:	No data available
MELTING POINT:	No data available
BOILING POINT:	117.22°-167.78°C (243-334°F)
SPECIFIC GRAVITY:	0.92@20°C
DENSITY (25°C):	0.92g/ml @25°C
VAPOR PRESSURE:	9.9 mm Hg @ 25°C (77.0°F)
VAPOR DENSITY:	3.1
WATER SOLUBILITY:	Complete
PARTITION COEFFICIENT N- OCTANOL/WATER	No data available
FLASH POINT:	31.7°C (89°F) - closed cup
EVAPORATION RATE (BUTYL ACETATE=1):	0.65
UPPER FLAMMABILITY LIMIT:	11.5% (V)
LOWER FLAMMABILITY LIMIT:	2.9% (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)

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

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

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

10.5 INCOMPATIBLE MATERIALS: Strong oxidants such as liquid chlorine, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide. Alkali metals, aluminum, lead or their alloys. May react with oxygen to form peroxides.

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

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

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

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Moderately irritating; Symptoms include burning sensation, pain, watering and/or change of vision.

Skin> Possible systemic toxicity by skin absorption;

Inhalation> May cause irritation of the respiratory tract. Symptoms of exposure may include: Nasal discharge, hoarseness, coughing, chest pain and breathing difficulty. Nausea headache or dizziness. Prolonged overexposure may cause coughing, shortness of breath, dizziness and intoxication;

Ingestion> If swallowed in large quantities this product would likely cause gastrointestinal tract irritation with nausea, vomiting, lethargy, or diarrhea.

Chronic:

Inhalation: Prolonged overexposure to either vapor or mist may cause coughing, shortness of breath, dizziness and stupor. Repeated or prolonged exposure may irritate the mucous membranes.

Medical Conditions Aggravated by Exposure> Significant exposure may adversely affect people with chronic disease of the central nervous system, respiratory tract, skin, eyes, and digestive tract. Overexposure may cause local

irritation at the site of exposure.

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	
1-Methoxy-2-Propanol	11700mg/kg	13000mg/kg	10000ppm/5hr	
Diacetone Alcohol	2520mg/kg	13500mg/kg	1500ppm/4hr	

1-METHOXY-2-PROPANOL

SKIN CORROSION/IRRITATION: No data available

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

RESPIRATORY OR SKIN SENSITIZATION: No data available

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 on OSHA's list of regulated carcinogens.

REPRODUCTIVE TOXICITY: No reproductive toxicity was demonstrated in relevant studies for this commercial material. No treatment related tumors were noted in chronic studies.

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 DATA: This product has been tested for teratogenicity, and no adverse health hazards were noted.

DIACETONE ALCOHOL

SKIN CORROSION/IRRITATION: No data available.

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

RESPIRATORY OR SKIN SENSITIZATION: No data available.

MUTAGENIC EFFECTS: Ames test – Method OECD Test Guideline 471; negative (Escherichia coli – reverse mutation assay) with and without metabolic activation Gene mutation assays in mammalian cells. Strain mouse lymphoma cells with and without activation - negative

Product is not considered to be genotoxic.

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: Reproduction/developmental toxicity screening test – Rat, male and female Oral exposure

General Toxicity Parent NOAEL: 300mg/kg

General Toxicity F1 NOAEL: 300mg/kg

The product is not considered to be teratogenic based on published data.

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: Central nervous system depression, Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness, Blood disorders, Dermatitis, Blurred vision, Effects due to ingestion may include: Causes liver and kidney damage in animals via repeated inhalation or oral exposure at high concentrations. Causes potentiation of chloroform-induced liver injury in laboratory animals via oral exposure.

12. ECOLOGICAL INFORMATION

1-METHOXY-2-PROPANOL

12.1 AQUATIC TOXICITY:

Toxicity to Fish:

LC50 Pimephales promelas (Fathead Minnow) - 28000mg/L – 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50 Daphnia magna (Water Flea) - 23330mg/L – 48 h

Toxicity to algae:

EC50 Pseudokirchneriella subcapita (green algae) - 1000mg/L – 48 h

12.2 PERSISTANCE AND DEGRADABILITY:

Vapors will photo-degrade in 3.1 hours. Biodegradation: Biodegradable under aerobic and anaerobic conditions. Aerobic biodegradation of 96% after 28 days. Anaerobic biodegradation of 38% after 81 days (30 day lag).

12.3 BIOACCUMULATIVE POTENTIAL: Not expected to bio-accumulate in aquatic organisms. log Octanol/water coefficient -0.437

Biological Oxygen Demand (BOD): No data available

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.

DIACETONE ALCOHOL

12.1 AQUATIC TOXICITY (Acute):

Not harmful to aquatic life (LC/LL50, EC/EL50 > 100mg/l)

No adverse chronic effect observed up to and including the threshold of 1mg/l

Toxicity to Fish:

LC50 *Orzias latipes* (Japanese medaka) – >100mg/L – 96h

LC50 - *Lepomis macrochirus* (Bluegill) - 420 mg/l - 96h

Method OECD Test Guideline 203

Toxicity to daphnia and other invertebrates:

EC50 *Daphnia magna* (water flea) – 1000mg/L – 48h

Method OECD Test Guideline 202

Toxicity to algae:

EC50 *Pseudokirchneriella subcapita* (green algae) - <<1000mg/L – 72h

Method Source IUCLID

Toxicity to microorganisms:

EC50 << 825 mg/l *Pseudomonas putida* (Bacteria) - <<825mg/L – 16h

12.2 PERSISTANCE AND DEGRADABILITY:

Biodegradability: Method OECD Test Guideline 301 30.54% - 4 days

42.77% - 7 days, 100% - 14 days

Readily degradable

12.3 BIOACCUMULATIVE POTENTIAL:

Potentially will not bio-accumulate.

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.

Dilute aqueous waste may biodegrade. Avoid overloading/poisoning plant biomass.

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-----> UN1993
- 14.2 USDOT Shipping Name-----> Flammable Liquids, n.o.s.
- 14.3 USDOT Hazard Classification-----> 3 (Flammable Liquid)
 USDOT Label Codes-----> 3
- 14.4 USDOT Package Code-----> III
- 14.5 Marine Pollutant-----> No
- 14.6 Special precautions for user-----> Yes
 Emergency Response Guide-----> 128
 Reportable quantity-----> 52631lbs – Blend (calculated)

Sea Transport (IMDG)

- 14.1 ID Number-----> UN1993
- 14.2 Proper shipping name-----> FLAMMABLE LIQUIDS, N.O.S.
- 14.3 Hazard Classification-----> 3 (Flammable Liquid)
 Label Codes-----> 3
- 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-----> UN1993
- 14.2 Proper shipping name-----> Flammable Liquids, n.o.s.
- 14.3 Hazard Classification-----> 3 (Flammable Liquid)
 Label Codes-----> 3
- 14.4 Package Code-----> II

14.5 Environmental hazard-----> None

14.6 Special precautions for user-----> Yes

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) - Not Listed

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

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

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

Reportable Quantity – 5000lbs, 4-Hydroxy-4-methylpentan-2-one CAS-No.123-42-2

SECTION 101(14) Reportable Quantity: 4-Hydroxy-4-methylpentan-2-one CAS-No.123-42-2 5000lbs, Blend – 52631lbs. (calculated)

Listed on MA, PA and CA Right to Know Law Hazardous Material Lists.

Massachusetts Right to Know Components

Monopropylene glycol methyl ether CAS-No.107-98-2

4-Hydroxy-4-methylpentan-2-one CAS-No.123-42-2

Pennsylvania Right to Know Components

Monopropylene glycol methyl ether CAS-No.107-98-2

4-Hydroxy-4-methylpentan-2-one CAS-No.123-42-2

New Jersey Right to Know Components

Monopropylene glycol methyl ether CAS-No.107-98-2

4-Hydroxy-4-methylpentan-2-one CAS-No.123-42-2

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.

TSCA (Toxic Substance Control Act)

Monopropylene glycol methyl ether CAS-No.107-98-2 and 4-Hydroxy-4-methylpentan-2-one CAS-No.123-42-2 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=B

Hazard statement(s) from Section 2 and 3:

H226 Flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H360 May damage fertility or the unborn child.

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Revision Content-----> General update all sections

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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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