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

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME: PETROSOL 4003C

PRODUCT NUMBER(s): 224500

TRADE NAMES/SYNONYMS: Blend

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST RECOMMENDED USE: Solvent USES ADVISED AGAINST: No information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEETCompany:G.J. CHEMICAL CO., INC.Address:40 VERONICA AVENUE
SOMERSET, NJ 08873Telephone:1-973-589-1450Fax: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), H225 Acute toxicity, Inhalation (Category 4), H332 Skin irritation (Category 3), H315 Eye irritation (Category 2A), H319 Carcinogenicity (Category 2), H351 Reproductive toxicity (Category 2), H361 Specific target organ toxicity - repeated exposure (Category 2), H373 Specific target organ toxicity - single exposure (Category 3) - Central nervous system, H336 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335 Aspiration hazard (Category 1), H304 Acute aquatic toxicity (Category 3), H401

GHS Label elements, including precautionary statements

Pictogram



Signal word: DANGER

Hazard statement(s)

H225 Highly flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure. H401 Toxic to aquatic life.

Precautionary statement(s)

Prevention:

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.

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

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

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 vou 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.

P331 Do NOT induce vomiting.

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.

P405 Store locked up.

Disposal:

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

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

3. INGREDIENTS

3.1 SUBSTANCE: Not applicable. 3.2 MIXTURE:

COMPONENT	CAS NO.	% BY WT. CLASSIFICATION	
Toluene 108-88-3 EC-No.203-625-9 Index-No.601-021-00-3 RegNo. 01-2119471310-51-XXXX		 71 Flammable liquids (Category 2), H22 Skin irritation (Category 2), H315 Reproductive toxicity (Category 2), H STOT-SE (Category 2), H373 STOT-SE (Category 3) - Central nerve system, H336 Aspiration hazard (Category 1), H304 Acute aquatic toxicity (Category 2), H 	1361 ous
N-Butyl Acetate 123-86-4 EC-No. 204-658-1 Index-No.607-025-00-1 RegNo. 01-2119485493-29-XXXX		10-11 Flammable liquids (Category 3), H22 STOT-SE (Category 3) central nervou system, H336 Acute aquatic toxicity (Category 3),	us
Methyl isobutyl	108-10-1	9-10 Flammable liquids (Category 2), H22	5

Ketone	EC-No. 203-550-1 Index-No. 606-004-00-4	l	Acute toxicity, Inhalation (Category 4), H332 Eye irritation (Category 2A), H319
RegNo. 01-2119473980-30-XXXX			Carcinogenicity (Category 2), H351 STOT-SE (Category 3), Respiratory system, H335
2-Propanol Reg	67-63-0 EC-No.200-661-7 Index-No.603-117-00-0 No. 01-2119457558-25-XXXX	 9-10 	 Flammable liquids (Category 2), H225 Eye irritation (Category 2A), H319 STOT-SE (Category 3), Central nervous system, H336

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

INHALATION: PETROSOL 4003C: <u>IRRITANT/NARCOTIC/NEUROTOXIN.</u> **<u>FIRST AID-</u> 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: PETROSOL 4003C: IRRITANT.

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

EYE CONTACT: PETROSOL 4003C: IRRITANT.

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

INGESTION: PETROSOL 4003C: NARCOTIC.

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

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED: Inhalation: Fatigue, confusion, headache, dizziness, drowsiness, peculiar skin sensations (pins and needles) or numbness may be produced. Very high concentrations via inhalation can cause unconsciousness and death. Aftereffects of acute inhalation include muscular fatigue, insomnia, and possible hepatic and renal damage which is reversible.

<u>Skin</u>: Causes irritation and drying. May cause irritation with a stinging effect and burning sensation. Substance may be dermally absorbed resulting in systemic toxicity as detailed in acute ingestion. Toxic effects may become more marked if absorption and inhalation occur concurrently.

Eye: Causes irritation and corneal burns, if not promptly removed. Can cause injury that may persist for several days.

<u>Ingestion</u>: May cause a burning sensation in the epigastrium and abdominal spasms. May cause drowsiness, unconsciousness, and death. Gastrointestinal pain, cramps, nausea, vomiting, and diarrhea may also result. Central nervous system depression may occur with headache, dizziness, flushing, in-coordination, stupor, confusion, hypotension, and refractory narcosis. Aspiration of the liquid into the lungs may cause coughing, gagging, distress, acute hemorrhagic pneumonitis, and rapidly developing pulmonary edema.

Chronic Effects:

Inhalation: Prolonged or repeated exposure via inhalation may cause mucous membrane irritation, vomiting, insomnia, nosebleeds, chest pains, and various motor difficulties. Bone marrow hypoplasia and leukopenia have been reported. Neuropsychiatric effects are varied. Muscle weakness leading to limb paralysis and abdominal pain is noted. Chromosome changes were observed in some workers. <u>Skin</u>: Prolonged or repeated exposure to the skin may cause de-fatting and dry fissure dermatitis.

<u>Eye</u>: Repeated or prolonged contact with the eye may cause conjunctivitis. <u>Ingestion</u>: Repeated ingestion may cause damage to kidney, liver, central nervous system, and lead to cancer.

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

Specific details on antidote: No recommendation given.

5. FIRE FIGHTING PROCEDURES

FLASH POINT: 7.2°C (45°F) (CC)UPPER EXPLOSIVE LIMIT: 8.0% (V)AUTOIGNITION TEMP.: N.D.LOWER EXPLOSIVE LIMIT: 1.3% (V)UNIFORM FIRE CODE: Flammable Liquid Class 1B

5.1 SUITABLE EXTINGUISHING MEDIA:

DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY OR REGULAR FOAM FOR LARGER FIRES, USE WATER SPRAY, FOG OR REGULAR FOAM

Unsuitable extinguishing media: Do not use waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR

MIXTURE: FIRE AND EXPLOSION HAZARD: DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK. VAPOR-AIR MIXTURES ARE EXPLOSIVE. DUE TO LOW ELECTROCONDUCTIVITY OF THE SUBSTANCE, FLOW OR AGITATION MAY GENERATE ELECTROSTATIC CHARGES RESULTING IN SPARKS WITH POSSIBLE IGNITION. Keep containers tightly closed. Flammable liquid; isolate from all sources of ignition. Closed containers may explode when exposed to extreme heat. Liquid floats on water.

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

<u>HAZARDOUS COMBUSTION PRODUCTS</u>: 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. 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. Avoid breathing toxic vapors, keep upwind. Water may be ineffective (NFPA 325M, Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids, 1991)

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY

<u>PROCEDURES</u>: Extremely Flammable; Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. 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.

SOIL SPILL:

Dig holding area such as lagoon, pond or pit for containment. Dike flow of spilled material using soil or sandbags or foamed barriers such as polyurethane or concrete. Use cement powder or fly ash to absorb liquid mass. Immobilize spill with universal gelling agent. Reduce vapor and fire hazard with appropriate foam. AIR SPILL:

Knock down vapors with water spray. Keep upwind.

WATER SPILL:

If material dissolved, apply activated carbon. Use dredges or lifts to extract masses of pollution and precipitates. Apply universal gelling agent to immobilize trapped spill and increase efficiency of removal. Limit spill motion and dispersion with natural barriers or oil spill control booms. Use soaps, detergents, alcohols or other surface active agent to thicken spilled material. Use suction hoses to remove trapped spill material.

<u>OCCUPATIONAL SPILL</u>: Shut off ignition sources. Stop leak if you can do it without risk. Use water spray to reduce vapors. For small spills, take up with sand or other absorbent material and place into containers for later disposal. For larger spills, dike far ahead of spill for later disposal. No smoking, flames or flares in hazard area. Keep unnecessary people away; isolate hazard area and restrict entry.

REPORTABLE QUANTITY (RQ): Toluene CAS-No.108-88-3 - 1000lbs;

n-Butyl Acetate CAS-No.123-86-4 – 5000lbs;4-Methylpentan-2-one CAS-No. 108-

10-1 – 5000lbs; 2-Propanol CAS-No.67-63-0 – 5000lbs; Blend – 1408lbs.

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

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

7. HANDLING AND STORAGE

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

Advice on general occupational hygiene:

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

STATIC HAZARD: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not be sufficient. For more information refer to OSHA Standard 29CFR 1910.106 "Flammable and Combustible Liquids" and National Fire Protection Association (NFPA 77) "Recommended Practice on Static Electricity".

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. A refrigerated room is preferable for materials with a flash point temperature lower than 70°F. DANGER! Do not open containers unless contents are at room temperature 72°F or below 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. Storage class (TRGS 510): Flammable liquids

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

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:

COMPONENT	CAS NO.	% BY WT.	EXPO	OSURE LIMITS
Toluene Reg.	108-88 EC-No.203-625 Index-No.601-021-00 -No. 01-2119471310-51-XXX	-9 -3	71	20PPM TWA (ACGIH) 150PPM STEL (ACGIH) 100PPM TWA (NIOSH) 150PPM STEL (NIOSH) 100PPM TWA (OSHA) 150PPM STEL (OSHA)
N-Butyl Acetate Reg.	123-86 EC-No. 204-658 Index-No.607-025-00- -No. 01-2119485493-29-XXX	1 1	10-11	 150PPM TWA (ACGIH) 200PPM STEL (ACGIH) 150PPM TWA (NIOSH) 200PPM STEL (NIOSH) 150PPM TWA (OSHA) 1700PPM IDLH
Methyl isobutyl Ketone Reg	-108-10 EC-No. 203-550- Index-No. 606-004-00- No. 01-2119473980-30-XXX	1 1 1	9-10	I I I I I I I I I I I I I I
2-Propanol Reg	-67-63 -EC-No.200-661 Index-No.603-117-00 No. 01-2119457558-25-XXX	7)	9-10	 200ppm TLV (ACGIH) 400ppm STEL (ACGIH) 400ppm TWA (OSHA) 500ppm STEL (OSHA) 400ppm TWA (NIOSH) 500ppm 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.

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

For vapor concentrations 1 to 10 times ACGIH TWA use an air purifying NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times ACGIH TWA, in confined areas, and/or where vapor concentrations are unknown use an approved positive pressure full face-piece supplied air respirator.

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.

<u>SKIN PROTECTION</u>: 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: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: 480 min

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

EYE/FACE PROTECTION: Use safety eyewear with splash-guards or face shield. Contact lenses should not be worn.

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:

Petrosol 4003C Blend APPEARANCE:	Watery liquid
COLOR:	Colorless
ODOR:	Pungent aromatic, benzene-like odor
ODOR THRESHOLD:	10-15ppm
рН	No data available
MOLECULAR WEIGHT:	No data available
MELTING POINT:	No data available
BOILING RANGE:	82.2-126.7°C (180-260°F)
SPECIFIC GRAVITY:	0.859@ 20° C
VAPOR PRESSURE:	42.5 mmHg@20° C
VAPOR DENSITY:	3.2
WATER SOLUBILITY:	Slight
PARTITION COEFFICIENT N-OCTANOL/WA	TER: No data available
FLASH POINT:	7.2°C (45°F) (CC)
EVAPORATION RATE: (butyl acetate-1):	1.8
UPPER FLAMMABILITY LIMIT:	8.0%
LOWER FLAMMABILITY LIMIT:	1.3%
AUTO IGNITION TEMPERATURE:	No data available
DECOMPOSITION TEMPERATURE:	No data available
VISCOSITY:	No data available
EXPLOSIVE PROPERTIES:	No data available
OXIDING PROPERTIES:	No data available
SOLVENT SOLUBILITY: Soluble in alcoho	ol, ether, benzene, chloroform, ligroin,
glacial acetic acid, carbon disulfide, acetor	le.

9.2 OTHER INFORMATION:

No data available

10. STABILITY AND REACTIVITY INFORMATION

- 10.1 <u>REACTIVITY</u>: No data available.
- 10.2 <u>CHEMICAL STABILITY</u>: Stable under normal temperatures and pressures.

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

<u>POLYMERIZATION</u>: Hazardous polymerization has not been reported to occur under normal temperatures and pressures.

10.4 INCOMPATIBILE MATERIALS:

TOLUENE

ALLYL CHLORIDE + DICHLOROETHYL ALUMINUM OR ETHYLALUMINUM SESQUICHLORIDE: Possible explosion.

BROMINE TRIFLUORIDE (SOLID): Violent reaction.

1,3-DICHLORO-5,5-DIMETHYL-2,4-IMIDAZOLIDIDIONE: Explosive reaction.

DINITROGEN TETROFLUORIDE: Forms explosive mixture.

NITRIC ACID: Vigorous reaction.

NITRIC ACID + SULFURIC ACID: Violent decomposition possible.

NITROGEN TETROXIDE: Explosive reaction.

OXIDIZERS (STRONG): Fire and explosion hazard.

PLASTICS, RUBBER, AND COATINGS: May be attacked.

SILVER PERCHLORATE: Forms shock-sensitive mixture.

SULFUR DICHLORIDE: Violent reaction, greatly accelerated in the presence of iron or ferric chloride.

SULFURIC ACID: Exothermic reaction.

TETRANITROMETHANE: Forms explosive mixture.

URANIUM HEXAFLUORIDE: Violent reaction.

n-BUTYL ACETATE -

ACIDS: Incompatible. ACIDS ANHYDRIDES: Incompatible. HYDROGEN PEROXIDE: Incompatible CHROMIUM TRIOXIDE: Incompatible

METHYL ISOBUTYL KETONE -

ACIDS: Incompatible. ACIDS ANHYDRIDES: Incompatible. HYDROGEN PEROXIDE: Incompatible CHROMIUM TRIOXIDE: Incompatible

2-PROPANOL (ISOPROPYL ALCOHOL) -

ACIDS: Incompatible.

ACIDS ANHYDRIDES: Incompatible.

ALUMINUM: Dissolution is exothermic.

BARIUM PERCHLORATE: Formation of explosive compound.

2-BUTANONE (METHYL ETHYL KETONE): Accelerates the peroxidation of the alcohol.

CHROMIUM TRIOXIDE (GRANULAR): Ignition.

COATINGS: May be attacked.

DIOXYGENYL TETRAFLUOROBORATE: Ignition at ambient temperatures. HALOGENS: Incompatible.

HYDROGEN + PALLADIUM (PARTICLES): Ignition on exposure to air.

HYDROGEN PEROXIDE: Formation of explosive compound.

KETONES: Markedly increases the possibility of peroxidation.

NITROFORM (TRINITROMETHANE): Dissolves liberating heat and possibly exploding.

OLEUM: Temperature and pressure increase in closed container.

OXIDIZERS (STRONG): Fire and explosion hazard.

OXYGEN (GAS): Autoxidation, on exposure to light, results in formation of ketones and potentially explosive hydrogen peroxide.

PHOSGENE: In the presence of iron salts, may explode.

PLASTICS: May be attacked.

POTASSIUM TERT-BUTOXIDE: Ignition.

RUBBER: May be attacked.

SODIUM DICHROMATE + SULFURIC ACID: Exothermic reaction with possible incandescence.

10.6 <u>HAZARDOUS DECOMPOSITION PRODUCTS:</u> Thermal decomposition may release acrid smoke and irritating fumes.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

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

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Inhalation: Fatigue, confusion, headache, dizziness, drowsiness, peculiar skin sensations (pins and needles) or numbness may be produced. Very high concentrations via inhalation can cause unconsciousness and death. Aftereffects of acute inhalation include muscular fatigue, insomnia, and possible hepatic and renal damage which is reversible.

Skin: Causes irritation and drying. May cause irritation with a stinging effect and burning sensation. Substance may be dermally absorbed resulting in systemic toxicity as detailed in acute ingestion. Toxic effects may become more marked if absorption and inhalation occur concurrently.

Eye: Causes irritation and corneal burns, if not promptly removed. Can cause injury that may persist for several days.

Ingestion: May cause a burning sensation in the epigastrium and abdominal spasms. May cause drowsiness, unconsciousness, and death. Gastrointestinal pain, cramps, nausea, vomiting, and diarrhea may also result. Central nervous system depression may occur with headache, dizziness, flushing, in-coordination, stupor, confusion, hypotension, and refractory narcosis. Aspiration of the liquid into the lungs may cause coughing, gagging, distress, acute hemorrhagic pneumonitis, and rapidly developing pulmonary edema.

Chronic Effects:

Inhalation: Prolonged or repeated exposure via inhalation may cause mucous membrane irritation, vomiting, insomnia, nosebleeds, chest pains, and various motor difficulties. Bone marrow hypoplasia and leukopenia have been reported. Neuropsychiatric effects are varied. Muscle weakness leading to limb paralysis and abdominal pain is noted. Chromosome changes were observed in some workers.

Skin: Prolonged or repeated exposure to the skin may cause de-fatting and dry fissure dermatitis.

Eye: Repeated or prolonged contact with the eye may cause conjunctivitis.

Ingestion: Repeated ingestion may cause damage to kidney, liver, central nervous system, and lead to cancer.

ACUTE TOXICITY:

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

Ingredient	Oral LD50 (Rat)	Skin LD50(Rabbit) Inhalation LC50		
Toluene				
	5580mg/kg	12.196g/kg	28,800mg/m3/4h	
n-Butyl Acetate				
	10.7-14.13g/kg	17.6g/kg	9.6-29.2mg/L/4h	
Methyl isobutyl Ketone	 2080mg/kg 	 >16000mg/kg 	 18.4-16.2mg/L/4h 	
2-Propanol				
	5045mg/kg	12800mg/kg	16000ppm/8hr	

<u> Toluene</u> -

SKIN CORROSION/IRRITATION: Skin - Rabbit Result: Skin irritation - 24 h SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405)

RESPIRATORY OR SKIN SENSITIZATION: No data available.

MUTAGENIC EFFECTS: Germ cell mutagenicity Rat Liver DNA damage 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 STATUS: Damage to fetus possible Suspected human reproductive toxicant Reproductive toxicity - Rat - Inhalation Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Experiments have shown reproductive toxicity effects in male and female laboratory animals. Developmental Toxicity -Rat - Oral Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

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 DATA: Stimulants such as epinephrine may induce ventricular fibrillation. Alcohol may enhance the toxic effects. The metabolism of other solvents may be inhibited resulting in a potentiation of toxic effects of those chemicals. Uptake is directly proportional to the amount of body fat. Blood levels may be cumulative when exposure is extended.

<u>n-Butyl Acetate</u> -

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

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

SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405)

RESPIRATORY OR SKIN SENSITIZATION: No data available

MUTAGENIC EFFECTS: Ames test S. typhimurium Result: negative CARCINOGEN STATUS:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. NTP: No component of this product present at levels greater than or equal to

0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

REPRODUCTIVE TOXICITY: Reproduction in an inhalation screening study at/near a maternally toxic dose (1500ppm for 7 hours/day), n-butyl acetate was not teratogenic in rats and rabbits but did cause embryo/fetotoxicity.

Specific target organ toxicity (STOT-SE) - single exposure (Globally Harmonized System): May cause drowsiness or dizziness – central nervous system.

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

ASPIRATION HAZARD: No data available.

11.2 ADDITIONAL DATA: Narcosis. Drowsiness. Dizziness.

Methyl Isobutyl Ketone -

SKIN CORROSION/IRRITATION: Skin - Rabbit Result: Mild skin irritation - 24 h SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Moderate eye irritation - 24 h

RESPIRATORY OR SKIN SENSITIZATION: No data available

MUTAGENIC EFFECTS: No data Available

CARCINOGEN STATUS:

IARC: 2B - Group 2B: Possibly carcinogenic to humans (4-Methylpentan-2-one) 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: Developmental toxicity (fetotoxicity not teratogenicity) was observed in rodents exposed repeatedly to a vapor concentration which was maternally toxic (3000ppm). Significant effects were not seen at 300 or 1000ppm.

Developmental Toxicity - Mouse - Inhalation

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death.

Developmental Toxicity - Mouse - Inhalation

Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities:

Musculoskeletal system. Specific Developmental Abnormalities: Cardiovascular (circulatory) system.

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 INFORMATION: Blurred vision, Dermatitis.

Methyl Isobutyl ketone has potentiated the neurotoxicity of linear 6-carbon solvents such as hexane in experimental animals. Methyl Isobutyl Ketone has enhanced the Liver toxicity of halogenated solvents in experimental animals.

2-Propanol (Isopropyl Alcohol) -

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: No data available.

MUTAGENIC EFFECTS: No data available.

CARCINOGEN STATUS:

(IARC Group-3). Strong acid manufacturing process: human sufficient evidence (IARC Group-1). Workers involved in the manufacture of isopropyl alcohol by the

strong-acid process, involving the formation of isopropyl oils, showed an increase in para-nasal and laryngeal cancer.

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 0.4% is identified as a large 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 information available.

SPECIFIC TARGET ORGAN TOXICITY (STOT-SE) - single exposure GHS May cause drowsiness or dizziness.

SPECIFIC TARGET ORGAN TOXICITY (STOT-RE) - repeated exposure GHS no data available

AT INCREASED RISK FROM EXPOSURE: Persons with pre-existing skin disorders; impaired liver, renal and/or pulmonary function.

11.2 ADDITIONAL DATA: Central nervous system depression, prolonged or repeated exposure can cause: Nausea, Headache, Vomiting, narcosis, Drowsiness, Overexposure may cause mild, reversible liver effects. Aspiration may lead to:, Lung edema, Pneumonia

Potentiates the effects of carbon tetrachloride and other hepatotoxic chlorinated aliphatic hydrocarbons.

12. ECOLOGICAL INFORMATION

<u> Toluene</u> -

DANGEROUS TO AQUATIC LIFE IN HIGH CONCENTRATIONS

FOULING TO SHORELINE

May be dangerous if it enters water intakes.

Notify health and wildlife officials.

Notify operators of nearby water intakes.

12.1 AQUATIC TOXICITY (Acute):

LC50 - Oncorhynchus mykiss (rainbow trout) - 7.63 mg/l - 96 h

NOEC - Pimephales promelas (fathead minnow) - 5.44 mg/l - 7 d

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 8.00 mg/l - 24 h

Immobilization EC50 - Daphnia magna (Water flea) - 6 mg/l - 48 h

Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae) - 245.00 mg/l - 24 h

EC50 - Pseudokirchneriella subcapitata (green algae) - 10.00 mg/l - 24 h

12.2 PERSISTANCE AND DEGRADABILITY: Readily Biodegradable

Biological Oxygen Demand (BOD): 0% 5 days, 38% (theoretical.) 8 days 12.3 BIOACCUMULATIVE POTENTIAL:

Bioaccumulation Leuciscus idus (Golden orfe) - 3 d - 0.05 mg/l

Bioconcentration factor (BCF): 90

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: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

n-Butyl Acetate -

SLIGHT ACUTE TOXICITY TO AQUATIC LIFE

May be dangerous if it enters water intakes.

Notify local health and wildlife officials.

Notify operators of nearby water intakes.

12.1 AQUATIC TOXICITY:

Toxicity to Fish;

LC50 – Pimephales Promelas (Fathead minnow) - 18mg/I – 96 h - Flow through test (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates:

EC50 - Daphnia magna (water flea) - 44 mg/l – 48 h - Static test Toxicity to algae:

IC50 - Scenedesmus subspicatus (green algae) – 674.7mg/l – 72 h – Static Test 12.2 PERSISTANCE AND DEG<u>RADABILITY:</u>

aerobic - Exposure time 28 d Result: 83 % - Readily biodegradable.

(OECD Test Guideline 301D)

Comments: Biological Oxygen Demand (BOD) BOD5/COD: >0.5

12.3 BIOACCUMULATIVE POTENTIAL:

Bio-accumulative potential: Will not bio-accumulate.

Bio-concentration factor (BCF) Value: 15 Method of testing: BCF

log Pow: 2.3

12.4 MOBILITY IN SOIL:

Mobility The product is water soluble and may spread in water systems. Surface tension Value: 61.3 mN/m @ 20°C

The Organic Carbon normalized adsorption coefficient 1,269 - 1,845 12.5 RESULTS OF PBT AND vPvB :

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

12.6 OTHER ADVERSE EFFECTS: Harmful to aquatic life.

Methyl Isobutyl Ketone -

Methyl Isobutyl Ketone exhibits low acute toxicity to aquatic species.

12.1 AQUATIC TOXICITY:

Toxicity to fish:

LC0 Leuciscus idus melanotus (Orfe) - 480mg/L – 48 h

Toxicity to daphnia and other invertebrates:

EC50 Daphnia magna (water flea) - 1550-3623mg/L - 24 h

Toxicity to algae:

EC50 Scenedesmus quadricauda (Green algae) - 980-2000mg/L – 48 h 12.2 <u>PERSISTANCE AND DEGRADABILITY</u>: Methyl Isobutyl Ketone is readily biodegraded. 5 day BOD in freshwater ranged from 56 to 76% of THOD. The estimated half-life for volatilization from water is 15-33 hours. The atmospheric photo-degradation half-life is estimated to be 15 hours.

12.3 <u>BIOACCUMULATIVE POTENTIAL</u>: The log octanol/water partition coefficient is 1.31. This suggests that it has low potential to bio-concentrate in aquatic organisms.

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

2-Propanol (Isopropyl Alcohol) -

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) - 9,640.00 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates:

EC50 - Daphnia magna (Water flea) - 5,102.00 mg/l - 24 h

Immobilization EC50 - Daphnia magna (Water flea) - 6,851 mg/l - 24 h Toxicity to algae:

EC50 - Desmodesmus subspicatus (green algae) - > 2,000.00 mg/l - 72 h EC50 - Algae - > 1,000.00 mg/l - 24 h

12.2 PERSISTANCE AND DEGRADABILITY: Data not available.

12.3 BIOACCUMULATIVE POTENTIAL:

log Pow <=4 No bioaccumulation is expected

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 GUIDELINES**

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. 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.

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

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

RCRA: The unused product is a RCRA hazardous waste if discarded. The RCRA ID numbers are: Toluene - U220; Methyl Isobutyl Ketone – U161; n-Butyl Acetate and 2-Propanol – 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> II 14.5 Marine Pollutant> No 14.6 Special precautions for user> None Emergency Response Guide> 128 Reportable quantity> 1408lbs Blend
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> 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 313: Toxic Chemicals Listing (40 CFR 372.65) - Listed Toluene CAS-No.108-88-3, 4-Methylpentan-2-one CAS-No. 108-10-1

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

<u>CERCLA</u> (Comprehensive Environmental Response, Compensation, and Liability Act)

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Listed SECTION 101(14) Reportable Quantities Toluene CAS-No.108-88-3 – 1000lbs. n-Butyl acetate CAS-No.123-86-4 – 5000lbs. 4-Methylpentan-2-one CAS-No. 108-10-1 – 5000lbs 2-Propanol CAS-No.67-63-0 – 5000lbs, Blend – 1408lbs.

Massachusetts Right to Know Components Toluene CAS-No.108-88-3 n-Butyl acetate CAS-No.123-86-4 4-Methylpentan-2-one CAS-No. 108-10-1 2-Propanol CAS-No.67-63-0

Pennsylvania Right to Know Components Toluene CAS-No.108-88-3 n-Butyl acetate CAS-No.123-86-4 4-Methylpentan-2-one CAS-No. 108-10-1 2-Propanol CAS-No.67-63-0

New Jersey Right to Know Components Toluene CAS-No.108-88-3 n-Butyl acetate CAS-No.123-86-4 4-Methylpentan-2-one CAS-No. 108-10-1 2-Propanol CAS-No.67-63-0 California Prop. 65 Components

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Toluene CAS-No.108-88-3

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer. 4-Methylpentan-2-one CAS-No. 108-10-1

TSCA (Toxic Substance Control Act)

Toluene CAS-No.108-88-3, n-Butyl acetate CAS-No.123-86-4, 4-Methylpentan-2one CAS-No. 108-10-1, 2-Propanol CAS-No.67-63-0 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:

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

Hazard statement(s) from Section 2 and 3:

H225 Highly flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H401 Toxic to aquatic life.

Date of Preparation-----> February 13, 2014

Revision Number----->1.2

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

Revision Date-----> October 31, 2018

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

Acronyms:

- AIHA American Industrial Hygiene Association
- ANSI American Nation Standards Institute API American Petroleum Institute

CERCLA	۹-	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
ΟΡΑ	-	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 Syste

This information is furnished without warranty, representation, inducement of license of any kind, except that it is accurate to the best of G.J. Chemical's knowledge, or obtained from sources believed by G.J. Chemical Co., Inc. to be accurate, and G.J. Chemical Co., Inc. does not assume any legal responsibility for use or reliance upon same. Users are encouraged to conduct their own tests. Before using any product, read its label. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.