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

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME -----> METERING ROLLER CLEANER

PRODUCT NUMBER(S)-----> 192800

TRADE NAMES AND SYNONYMS -> Blend

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST RECOMMENDED USE: Cleaning of printing presses. 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), H226 Acute toxicity, Inhalation (Category 4), H332 Skin irritation (Category 3), H315 Eye irritation (Category 2A), H319 Carcinogenicity (Category 2), H351 Specific target organ toxicity - single exposure (Category 3), Respiratory system, Central nervous system, H335, H336 Specific target organ toxicity - repeated exposure, Oral (Category 2), Liver, Blood, H373 Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Central nervous system, H373 Aspiration Hazard (Category 1), H304 Acute aquatic toxicity (Category 2), H401

2.2 GHS Label elements, including precautionary statements



Signal word DANGER

Signal word DAN Hazard statement(s)

H226 Flammable liquid and vapor.

H312 + H332 Harmful in contact with skin or if inhaled

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H373 May cause damage to organs (Liver, Blood) through prolonged or repeated exposure if swallowed.

H373 May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.

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.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

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.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

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

P321 Specific treatment (see supplemental first aid instructions on this label).

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. 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. <u>INGREDIENTS</u>

3.1 SUBSTANCE: Not applicable. 3.2 MIXTURE:

Ingredient	CAS No.	% by V	VT.
		Range	CLASSIFICATION
Dichloromethane 75-09-2 EC-No.200-838-9 Index-No.602-004-00-3 Reg. No. 01-2119480404-41-XXXX		48 	 Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319 Carcinogenicity (Category 2), H351 STOT-SE - (Category 3), Respiratory system, Central nervous system, H335,H336 STOT-RE - Oral (Category 2), Liver, Blood, H373 STOT-RE - Inhalation (Category 2), Central nervous system, H373
Xylenes 1330-20-7 EC-No.215-535-7 Index-No.601-022-00-9 RegNo. 001-2119488216-32-XXXX		32	 Flammable liquids (Category 3), H226 Acute toxicity, Inhalation (Category 4), H332 Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319 STOT-SE (Category 3), Respiratory System, H335 STOT-RE, Inhalation (Category 2), Central Nervous system, Liver, Kidney, H373 Aspiration Hazard (Category 1), H304 Acute aquatic toxicity (Category 2), H401

Isopropanol RegNo.	67-63-0 EC-No.200-661-7 Index No: 603-117-00-0 01-2119457558-25-XXXX	20 	 Flammable liquids (Category 2), H225 Eye irritation (Category 2A), H319 STOT-SE 3 (Category 3), Central nervous System, H336
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4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

INHALATION: Metering Roller Cleaner

**<u>FIRST AID- Remove from exposure area to fresh air immediately.</u> If breathing is difficult 100% humidified oxygen should be administered by a qualified individual. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

SKIN CONTACT: Metering Roller Cleaner

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

EYE CONTACT: Metering Roller Cleaner

**<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 flush. Get medical attention immediately.

INGESTION: Metering Roller Cleaner

**<u>FIRST AID- If in respiratory depression, give oxygen by artificial</u> respiration. Do not induce vomiting. Do not give fluids. Prevent aspiration by keeping the victims head below the knees. Never give anything by mouth to an unconscious person. Immediately get to a physician or poison control center, treat symptomatically. Gastric lavage may be effective when performed by a physician within 4 hours of ingestion. 4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED <u>Eye</u>: Irritating, causing pain, inflammation and temporal eye damage;

<u>Skin</u>: Mildly irritating; May produce burning sensation and redness. Is de-fatting agent. The degree of irritation depends on amount of material applied to skin and the speed of removal.

<u>Inhalation</u>: Irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion,

unconsciousness or coma. Irritation of respiratory tract. Causes formation of carbon monoxide in blood, which affects cardiovascular system and the central nervous system.

<u>Ingestion</u>: May cause Irritation of gastrointestinal tract. If vomiting results in aspiration, chemical pneumonia could follow. Absorption through gastrointestinal tract may produce liver damage and symptoms of central nervous system depression. May cause a burning sensation in the mouth and stomach. With aspiration of even a small quantity into the lungs, severe coughing, distress, chemical pneumonitis, rapidly developing pulmonary edema may occur.

<u>Chronic</u>: Can cause headache, mental confusion, depression, fatigue, loss of apetite, nausea, vomiting cough, loss of sense of balance and visual; disturbances. Prolonged skin contact may cause dermatitis. Chronic inhalation or ingestion may cause liver and kidney damage. Prolonged or repeated exposure to vapors may cause conjunctivitis.

<u>Medical Conditions Aggravated by Exposure</u>: Persons with angina or other cardiovascular diseases should not be exposed to this product. Persons with pre-existing disorders of the skin, central nervous system, liver and kidney.

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: 12°C (53°F) TCCLEL %: 7.4 (V)Auto-ignition Temp.: Not AvailableUEL %: 16.3 (V)

5.1 <u>SUITABLE EXTINGUISHING MEDIA</u>: 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

<u>MIXTURE</u>: This product is flammable under normal conditions. This material releases vapors at or below ambient temperatures. At high temperatures this product decomposes to give off hydrochloric acid as gas plus other toxic and irritating vapors such as phosgene and chlorine. If storage containers are exposed to excessive heat, over pressurization of the containers can result. If

storage containers are exposed to excessive heat, over pressurization of the containers can result with the danger of explosion. Vapor may form flammable mixture in atmosphere that contains a high percentage of oxygen. Vapors are heavier than air and may travel a considerable distance to a source of ignition.

<u>CONDITIONS OF FLAMMABILITY</u>: 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, hydrogen chloride, chlorine and phosgene evolve when this material undergoes combustion.

5.3 <u>ADVICE FOR FIREFIGHTERS:</u> 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.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY

<u>PROCEDURES</u>: 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 NIOSH/MSHA approved positive pressure self-contained respirator (SCBA) 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. Place all saturated absorbent, using nonsparking 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.

<u>SOIL SPILL</u>:

Dig a holding area such as a pit, pond or lagoon to contain spill and dike surface flow using barrier of soil, sandbags, foamed polyurethane or foamed concrete. Absorb liquid mass with fly ash or cement powder.

Immobilize spill with universal gelling agent. Reduce vapor and fire hazard with appropriate foam.

AIR SPILL:

Knock down vapors with water spray. Keep upwind.

<u>WATER SPILL</u>: Limit spill motion and dispersion with natural barriers or oil spill control booms. Apply detergents, soaps, alcohols or another surface-active agent. Apply universal gelling agent to immobilize trapped spill and increase efficiency of removal. If dissolved, at a concentration of 10 PPM or greater, apply activated carbon at ten times the amount that has been spilled. Use suction hoses to remove trapped spill material. Use mechanical dredges or lifts to extract immobilized masses of pollution and precipitates.

<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.

Methods for disposal:

Remove contaminated soil to remove contaminated trace residues.

Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Flush with water to remove trace reside. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

REPORTABLE QUANTITY (RQ): Methylene Chloride – 1000lbs. and Xylene – 100lbs. Isopropanol – 5000lbs.

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 PRECAUTIONS FOR SAFE HANDLING: This material presents a fire hazard. Liquid guickly 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. Do not breathe vapor. Avoid contact with eyes, skin and clothing. Keep container tightly closed and upright to prevent leakage. Use only with adequate ventilation. Wash thoroughly after handling. 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. 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.

<u>STATIC HAZARD:</u> 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. High Vapor Pressure presents a hazard when opening packages. 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. Store away from incompatible substances.

<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.

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 Rang	WT. e Exposure Limits
Dichloromethane	75-09-2 C-No.200-838-9	 48 	 25ppm PEL (OSHA) 50ppm TWA (ACGIH)
Index-No.602-004-00-3 Reg. No. 01-2119480404-41-XXXX		ļ	125ppm STEL (OSHÁ)
Xylenes E Index-I RegNo. 001-21194	1330-20-7 C-No.215-535-7 No.601-022-00-9 88216-32-XXXX	32 	l 100ppm TWA (ACGIH) 100ppm TWA (OSHA) 150ppm STEL (ACGIH 900ppm IDLH
Isopropanol 67-63-0 EC-No.200-661-7 Index No: 603-117-00-0 RegNo. 01-2119457558-25-XXXX		20 	l 200ppm TWA (ACGIH) 400ppm STEL (ACGIH) 400ppm TWA (OSHA) 500ppm STEL (OSHA) 2000ppm IDLH
Key: (PEL) = Permiss (TLV) = Thresho	ible Exposure Limit Id Limit Value OSH	t OSHA A & ACGI	н

(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 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, wash and dry contaminated clothing before reuse.

SKIN PROTECTION: Employee must wear appropriate protective gloves to prevent contact with this substance. Splash contact Material: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: 148 min

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

EYE/FACE PROTECTION: Use chemical safety goggles plus full face shield. Emergency shower and eyewash should be in close proximity.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Metering Roller Cleaner Blend APPEARANCE: COLOR: ODOR: ODOR THRESHOLD: pH: MOLECULAR WEIGHT: MELTING POINT: BOILING POINT: SPECIFIC GRAVITY: DENSITY (25°C): VAPOR PRESSURE:

Clear mobile liquid Colorless Mild aromatic odor 45-50ppm No data available No data available 39.8 - 120 °C (103.6 - 248 °F) 1.02@20°C 1.02@20°C 215 mm Hg @ 20°C (68.0°F)

VAPOR DENSITY:	2.83
WATER SOLUBILITY:	20%
PARTITION COEFFICIENT N-	No data available
OCTANOL/WATER	
FLASH POINT:	12°C (53°F)
EVAPORATION RATE (BUTYL ACETATE:	=1): 6
UPPER FLAMMABILITY LIMIT:	16.3% (V)
LOWER FLAMMABILITY LIMIT:	7.4% (V)
AUTO INGNITION 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 <u>REACTIVITY</u>: No data available.

10.2 <u>CHEMICAL STABILITY</u>: Unstable () Stable (X) Stable under normal temperatures and pressures.

10.3 <u>POSSIBILITY OF HAZARDOUS REACTIONS:</u> Vapor may form flammable mixture in atmosphere that contains a high percentage of oxygen. Exposure to combination of carbon monoxide and methylene chloride must be limited.

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

10.4 <u>CONDITIONS TO AVOID</u>: Heat, Sparks, Pilot Lights, Static Electricity, and other high temperature sources which induce thermal decomposition to irritating and corrosive HCL from solvent vapor. Strong UV light can cause significant phosgene to be generated.

10.5 <u>INCOMPATIBLE MATERIALS</u>: Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide, alkali metals, aluminum or zinc.

Synergistic Materials: Exposure to combination of carbon monoxide and methylene chloride must be limited. Where carbon monoxide concentration equals its exposure limit, there should be no exposure to methylene chloride.

10.6 <u>HAZARDOUS DECOMPOSITION PRODUCTS</u>: Toxic fumes of Phosgene, Hydrochloric Acid can be produced at high temperatures in the presence of alkali metals.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

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

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Irritating, causing pain, inflammation and temporal eye damage;

Skin> Mildly irritating; May produce burning sensation and redness. Is de-fatting agent. The degree of irritation depends on amount of material applied to skin and the speed of removal.

Inhalation> Irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma. Irritation of respiratory tract. Causes formation of carbon monoxide in blood, which affects cardiovascular system and the central nervous system.

Ingestion> May cause Irritation of gastrointestinal tract. If vomiting results in aspiration, chemical pneumonia could follow. Absorption through gastrointestinal tract may produce liver damage and symptoms of central nervous system depression. May cause a burning sensation in the mouth and stomach. With aspiration of even a small quantity into the lungs, severe coughing, distress, chemical pneumonitis, rapidly developing pulmonary edema may occur.

Chronic: Can cause headache, mental confusion, depression, fatigue, loss of apetite, nausea, vomiting cough, loss of sense of balance and visual; disturbances. Prolonged skin contact may cause dermatitis. Chronic inhalation or ingestion may cause liver and kidney damage. Prolonged or repeated exposure to vapors may cause conjunctivitis.

Medical Conditions Aggravated by Exposure> Persons with angina or other cardiovascular diseases should not be exposed to this product. Persons with pre-existing disorders of the skin, central nervous system, liver and kidney.

ACUTE TOXICITY:

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

Dichloromethane 	2000mg/kg	2000mg/kg 	52000mg/kg/8hr
Xylenes	3523mg/kg	 12126mg/kg 	 5000ppm/4hr
 Isopropyl Alcohol 	5045mg/kg	 12800mg/kg 	

Methylene Chloride (Dichloromethane)-

SKIN CORROSION/IRRITATION: Skin - Rabbit Result: Irritating to skin. - 4 h (OECD Test Guideline 404)

SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Irritating to eyes. **RESPIRATORY OR SKIN SENSITIZATION:**

Respiratory: - Mouse Did not cause sensitization on laboratory animals. (OECD Test Guideline 429)

Skin: No data available.

MUTAGENIC EFFECTS: Chromosome aberration test in vitro Result: positive Ames test Salmonella typhimurium Result: positive OECD Test Guideline 474 Mouse - male and female - Bone marrow

CARCINOGEN STATUS: IARC: 2B - Group 2B: Possibly carcinogenic to humans (Methylene chloride)

NTP: Reasonably anticipated to be a human carcinogen (Methylene chloride) OSHA: OSHA specifically regulated carcinogen (Methylene chloride) **REPRODUCTIVE TOXICITY: No information available.**

Specific target organ toxicity (STOT-SE)- single exposure (Globally Harmonized System): May cause respiratory irritation. May cause drowsiness or dizziness. Specific target organ toxicity (STOT-RE)- repeated exposure (Globally Harmonized System): Inhalation - May cause damage to organs through prolonged or repeated exposure. - Central nervous system

Oral - May cause damage to organs through prolonged or repeated exposure. -Liver, Blood

ASPIRATION HAZARD: No information available.

11.2 ADDITIONAL DATA: Dizziness, Nausea, Vomiting, narcosis, Cough, irritant effects, Unconsciousness, Shortness of breath, respiratory paralysis,

somnolence, depressed respiration, CNS disorders, inebriation Risk of corneal clouding. The following applies to aliphatic halogenated hydrocarbons in general: systemic effect: narcosis, cardiovascular disorders. Toxic effect on liver, kidneys. Dichloromethane is metabolized in the body producing carbon monoxide which increases and sustains carboxyhemoglobin levels in the blood, reducing the oxygen-carrying capacity of the blood.

<u>Xylenes</u>

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

RESPIRATORY OR SKIN SENSITIZATION: No data available MUTAGENIC EFFECTS: No information available.

CARCINOGEN STATUS:

Xylene:

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans 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.

Ethylbenzene:

IARC: 2B - Group 2B: Possibly carcinogenic to humans

REPRODUCTIVE TOXICITY: No data available.

Specific target organ toxicity (STOT-SE) - single exposure (Globally Harmonized System) May cause respiratory irritation.

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

Harmonized System) Inhalation - May cause damage to organs through prolonged or repeated exposure. - Central nervous system, Liver, Kidney

ASPIRATION HAZARD: May be fatal if swallowed and enters airways.

AT INCREASED RISK FROM EXPOSURE: Pregnant women.

11.2 ADDITIONAL DATA: Blurred vision, Incoordination., Headache, Nausea, Vomiting, Dizziness, Weakness, anemia, Prolonged or repeated exposure to skin causes defatting and dermatitis.

Alcohol may enhance the toxic effects. Stimulants such as epinephrine or ephedrine may induce ventricular fibrillation.

Isopropyl Alcohol (Isopropanol, 2-Propanol, IPA)

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 0.1% 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

HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS

May be dangerous if it enters water intakes.

Notify local health and wildlife officials.

Notify operators of nearby water intakes.

This mixture contains components that are potentially toxic to freshwater and saltwater ecosystems.

Methylene Chloride (Dichloromethane):

12.1 <u>AQUATIC TOXICITY</u>: (acute)

Toxicity to fish

LC50 - Pimephales promelas (fathead minnow) - 193.00 mg/l - 96 h

NOEC - Cyprinodon variegatus (sheepshead minnow) - 130 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 1,682.00 mg/l - 48 h

12.2 PERSISTENCE AND DEGRADABILITY:

aerobic - Exposure time 28 d Result: 68 % - Readily biodegradable. (OECD Test Guideline 301D). When released into water, this material may biodegrade to a moderate extent. When released into the air, this material is expected to have a half-life of greater than 30 days.

12.3 <u>BIOACCUMULATIVE POTENTIAL:</u> Log octanol/water partition coefficient of log Pow 1.25. This material is not expected to significantly bio-accumulate. 12.4 <u>MOBILITY IN SOIL</u>: When released into soil this material is expected to quickly

evaporate. When released into the soil, this material may leach into groundwater. 12.5<u>RESULTS OF PBT AND vPvT</u>: Data are not available.

12.6 OTHER ADVERSE EFFECTS: Slightly hazardous to water.

<u>Xylenes:</u>

12.1 AQUATIC TOXICITY (Acute):

Toxicity to fish:

LD50 - Oncorhynchus mykiss (rainbow trout) - 3.3 mg/l - 96 h

Toxicity to daphnia and other invertebrates:

EC50 - Daphnia magna (Water flea) - 75.49 mg/l - 24 h

Toxicity to algae:

EC50 - Pseudokirchneriella subcapitata - 72 mg/l - 14 d Growth inhibition

12.2 PERSISTANCE AND DEGRADABILITY: Readily Biodegradable

12.3 BIOACCUMULATIVE POTENTIAL: No data available.

12.4 MOBILITY IN SOIL: No data available

12.5 RESULTS OF PBT AND vPvT :

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.

Ethybenzene:

12.1 AQUATIC TOXICITY (Acute):

Toxicity to Fish:

LC50 - Oncorhynchus mykiss (rainbow trout) - 4.2 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) – 1.8 – 2.4 mg/l - 48 h

Toxicity to algae:

EC50 - static test - Skeletonema costatum (marine diatom) - 4.9 mg/l - 72 h 12.2 PERSISTANCE AND DEGRADABILITY:

aerobic - Exposure time 28 d Result: 70 - 80 % - Readily biodegradable.

12.3 BIOACCUMULATIVE POTENTIAL:

Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected. Log Pow: 3.6@20°C(68°F)

12.4 MOBILITY IN SOIL: No data available

12.5 RESULTS OF PBT AND vPvT :

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.

Isopropyl Alcohol (Isopropanol, 2-Propanol, IPA):

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 vPvT :

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 DISPOSAL 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.

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.

CONTAMINATED PACKAGING: Dispose of as unused product. RCRA: The unused product is a RCRA hazardous waste if discarded. The RCRA ID numbers are: Methylene Chloride - U080, Xylene - U239, 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> UN1992
14.2 USDOT Shipping Name> Flammable Liquids, Toxic, n.o.s.
14.3 USDOT Hazard Classification> 3
USDOT Label Codes>3, 6.1
14.4 USDOT Package Code> II
14.5 Marine Pollutant> No
14.6 Special precautions for user> No
Emergency Response Guide> 131
Reportable quantity> Methylene Chloride – 1000lbs., Xylene –
100lbs. and Isopropanol – 5000lbs.
Sea Transport (IMDG)
14.1 UN Number:> UN1992
14.2 Proper Shipping Name> FLAMMABLE LIQUIDS, TOXIC, N.O.S.
14.3 Hazard Class:> 3, 6.1
14.4 Packing Group:> II
14.5 Marine Pollutant> No
14.6 Special precautions for user:> No
EmS-No> F-E, S-D
Air Transport (ICAO/IATA)

- 14.1 UN Number:-----> UN1992
- 14.2 Proper Shipping Name:----> Flammable Liquids, Toxic, n.o.s.
- 14.3 Hazard Class:----> 3, 6.1
- 14.4 Packing Group:-----> II
- 14.5 Environmental hazard-----> Not applicable
- 14.6 Special precautions for user:----> No

15. **REGULATORY INFORMATION**

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Listed Dichloromethane CAS 75-09-2, Xylenes CAS1330-20-7

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

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

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Listed Dichloromethane - 1000lbs.; Xylenes - 100lbs. Ethyl Benzene - 1000lbs.CERCLA 2-Propanol – 5000lbs. SECTION 101(14) Reportable Quantity: Dichloromethane - 1000lbs.; Xylenes -100lbs. Ethyl Benzene - 1000lbs.CERCLA 2-Propanol – 5000lbs.

<u>RCRA (Resource Conservation and Recovery Act.)</u> 40 CFR 261.33 Hazardous Waste Numbers: Methylene Chloride –U080; Xylene - U239 2—Propanol – D001

Listed on California, Massachusetts, New Jersey, New York, and Pennsylvania hazardous substance Lists.

Massachusetts Right to Know Components Dichloromethane CAS-No.75-09-2 Ethylbenzene CAS-No.100-41-4 Xylenes 1330-20-7 2-Propanol CAS-No.67-63-0

Pennsylvania Right to Know Components Dichloromethane CAS-No.75-09-2 Ethylbenzene CAS-No.100-41-4 Xylenes 1330-20-7 2-Propanol CAS-No.67-63-0

New Jersey Right to Know Components Dichloromethane CAS-No.75-09-2 Ethylbenzene CAS-No.100-41-4 Xylenes 1330-20-7 2-Propanol CAS-No.67-63-0

California Prop. 65 Components WARNING! This product contains chemicals known to the State of California to cause cancer. Dichloromethane CAS-No.75-09-2 Ethylbenzene CAS-No.100-41-4

TSCA (Toxic Substance Control Act)

Dichloromethane CAS-No.75-09-2, Ethylbenzene CAS-No.100-41-4, Xylenes 1330-20-7, 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 substance.

16. OTHER INFORMATION:

Hazard Rating: 4-Extreme 3-High 2-Moderate 1-Slight 0-Insignificant

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

Hazard statement(s) from Section 2 and 3:

H226 Flammable liquid and vapor.

H312 + H332 Harmful in contact with skin or if inhaled

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H373 May cause damage to organs (Liver, Blood) through prolonged or repeated exposure if swallowed.

H373 May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.

H401 Toxic to aquatic life.

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

Acronyms:

ACGIH	-	American Conference of Governmental Industrial Hygenists
AIHA	-	American Industrial Hygiene Association
ANSI	-	American Nation Standards Institute
API	-	American Petroleum Institute
CERCLA	۸-	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

- 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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