MATERIAL SAFETY DATA SHEET (C1) R
G.J. Chemical Co

Section I Identification

Distribution Source----------> G.J. Chemical Co., Inc.
Street Address----------> 40 Veronica Avenue, Somerset, NJ08873
Telephone Number----------> 973-589-1450
Emergency Telephone Number> 1-800-424-9300 Chemtrec

Product Name----------> Hexylene Glycol all Grades
Product Number----------> 175500, 175540, 175550
Chemical Name or Synonyms--> 2-Methyl-2,4-pentanediol

Section II Ingredients

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Hexylene Glycol	107-41-5	99	25ppm TLV(ACGIH)
	EC-No.203-489-0		25ppm CEIL(OSHA)
	Index-No.603-053-00-3		(Ceiling)

Key: (PEL) = OSHA
(TLV) = OSHA & ACGIH (STEL) = ACGIH
CAS = Chemical Abstracts Registry Number
IDLH = Immediate Danger to Life and Health

Section III Health Hazard Data

Physical Appearance: Hexylene Glycol is a clear colorless liquid with a mild sweetish odor.

EMERGENCY OVERVIEW:
CAUTION!
~Combustible Liquid and Vapor
~May cause respiratory tract, skin, and eye irritation.
~ Target Organs: Central nervous system

GHS Classification
Acute toxicity, Oral (Category 5)
Skin irritation (Category 2)
Eye irritation (Category 2A)

GHS Label elements, including precautionary statements

Pictogram

Signal word Warning
Hazard statement(s)
H303 May be harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Precautionary statement(s)
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

CERCLA RATINGS (SCALE 0-3):	**Health=2**	**Fire=1**	**Reactivity=0**	**Persistence=0**
NFPA RATINGS (SCALE 0-4):	**Health=2**	**Fire=1**	**Reactivity=0**	
HMIS RATINGS (SCALE 0-4):	**Health=2**	**Fire=1**	**Reactivity=0**	**PPE=G**

Exposure limits: See Section II

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

Effects of overexposure:
Acute:

Eye> Moderate to severe irritation; Symptoms are eye irritation, burning sensation, pain, watering and/or change of vision.

Skin> Mildly irritating; Symptoms are drying, cracking or inflammation.

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

unconsciousness or coma. Nasal discharge, hoarseness, coughing, chest pain and breathing difficulty.

Ingestion> May be harmful if swallowed. Symptoms may include Nausea, vomiting, loss of appetite, gastrointestinal irritation and/or diarrhea. May cause inflammation of mouth, throat, esophagus and/or stomach. May cause central nervous system depression.

Chronic: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose.

Target Organ effects: Overexposure may cause; CNS Depression, Irritation of the Respiratory Tract, Digestive tract and locally at site of exposure.

Medical Conditions Aggravated by Exposure> Skin contact may aggravate chronic disease of the respiratory tract and existing dermatitis.

Section IV First Aid Measures

Emergency and First Aid Procedures:

Inhalation > Remove from exposure to fresh air, restore breathing, use oxygen if necessary. Keep warm and quiet. Notify physician.

Eyes (Splash)> Immediately flush eyes with water for 15 minutes while holding eyelids open for irrigation. Remove contact lenses. Take to a physician.

Skin (Splash)> Wash affected area with soap and plenty of water.
Remove contaminated clothing. Consult a physician if irritation persists.

Ingestion> Do Not induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. Consult a physician or poison control center, treat symptomatically.

Section V Fire and Explosion Hazard Data

Flash Point: 201°F

LEL %:1.3
UEL %:7.4

Auto-ignition Temp: 583°F

Extinguishing Media - Foam--> x CO2--> x Dry Chemical-->x Water-fog--> x Other-->

Special Fire Fighting Procedures: Shut off source. Water spray should be used to cool fir-exposed structures and vessels. Water spray can be used to reduce the intensity of flames and to dilute spills to a non-flammable mixture. Oxidizing chemicals may accelerate the burning rate in a fire situation. Wear NIOSH approved self-contained breathing apparatus and protective clothing. Thoroughly decontaminate bunker gear and other fire-fighting equipment before re-use.

Unusual Fire and Explosion Hazards: Keep containers tightly closed. This material may produce a floating fire hazard in extreme fire conditions. Burning can produce Carbon Monoxide and Carbon Dioxide. Carbon Monoxide is highly toxic if inhaled.

Section VI Accidental Release Measures

Steps to be taken in case material is released or spilled> Shut off valves, contain spill, keep out of water sources and sewers, add non-flammable absorbent in spill area. Place saturated absorbent into an approved container for disposal. If fire potential exists, blanket spill with alcohol type aqueous film-forming foam or use water fog to disperse vapors.

Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations. Keep all nonessential people away.

Section VII Handling and Storage

Do not store above 120°F. Store large quantities only in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Keep containers closed when not in use. Do not store with incompatible materials.

Do not take internally. 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. Store under inert gas. Hygroscopic

Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Use non-sparking tools to open or close containers.

Section VIII Exposure Controls and Personal Protection

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

Protective Gloves> Rubber or neoprene chemical resistant gloves.

Eye Protection> Use safety eyewear with splash guards or face shield.

Other Protective Clothing or Equipment> Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse. Shower and eyewash should be easily accessible to the work area.

Section IX Physical and Chemical Properties

Appearance ----------> Transparent colorless liquid
Odor----------> Mild
Boiling Range (°F)----------> 387
Solubility in water----------> Complete
Vapor Density (air=1)----------> 4.1
Evaporation Rate (Butyl Acetate=1)> .003
Vapor Pressure----------> .02mmHg@20°C
Specific Gravity----------> .925 @25°C
Molecular Weight----------> 118.18g/mol
Freezing Point----------> -144°F

Section X Stability and Reactivity Data

Stability: Unstable ( ) Stable (X)
Conditions to avoid--> Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame.

Incompatibility (Materials to Avoid)--> Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g.
Nitric Acid, peroxides, perchloric acid, or chromium trioxide. Keep away from sulfuric acid, phosphoric acid and other dehydrating agents.

Hazardous decomposition products--> Fumes, Smoke, Carbon Monoxide, Aldehydes and other decomposition products where combustion is not complete.

Hazardous Polymerization--> May occur ( ) Will not occur (X)

Section XI Toxicity Data

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
Hexylene Glycol	3700mg/kg	7892mg/kg	>0.31mg/L/1hr

Carcinogenicity: 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, OSHA, or ACGIH.

Specific target organ toxicity - single exposure (Globally Harmonized System) no data available
Specific target organ toxicity - repeated exposure (Globally Harmonized System) no data available

Reproductive : No evidence of reproductive effects.
Mutagenic: Does not show mutagenic potential in most in vitro tests.
The NOEL was 150mg/kg/day.

Section XII Ecological Information

Ecotoxicity: Hexylene Glycol exhibits low acute toxicity to aquatic species.

EC50 5-minute Bacteria (Photobacterium phosphoreum)	3070ppm
LC50 48-hour Aquatic Invertebrates (Daphnia magna)	5410-8700ppm
LC50 96-hour Fish (Salmo gairdneri)	9450ppm
LC50 96-hour Fish (Leopornis macrochirus)	12800ppm
LC50 96-hour Fish (Carassius auratus)	12000ppm

Environmental Fate:
Dagradation: Hexylene Glycol was readily biodegradable in the MITI test.
Bioaccumulation: The log n-octanol/water partition coefficient was <0.14. This suggests a low potential to bioaccumulate.

Section XIII Disposal Considerations

Waste Disposal Method> 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. You may

incinerate under controlled conditions in a permitted facility.

Section XIV Transport Information

DOT Shipping Name----------> Hexylene Glycol
DOT Hazard Classification---> Not DOT Regulated
DOT Label Codes----------> N/A
DOT ID Number----------> N/A
DOT Package Code----------> N/A
Emergency response Guide-> N/A
Marine Pollutant----------> No

Section XV Regulatory Information

(RQ) Reportable Quantity-> None CERCLA

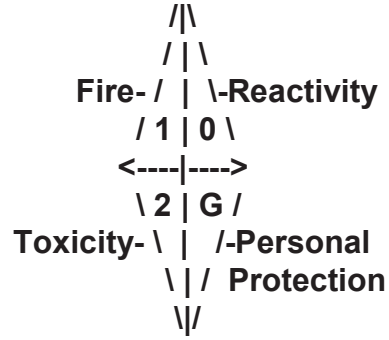
Sara 302 - No
Sara 313 - No

Sara Section 311 List Hazards:
(a) Immediate Acute Health>>>>> Yes
(b) Delayed Chronic Health>>>>> Yes
(c) Fire>>>>> No (d) Reactive>>>>> No
(e) Sudden Release of Pressure>>>>> No

Massachusetts Right To Know Components
2-Methylpentane-2,4-diol CAS-No.107-41-5
Pennsylvania Right To Know Components
2-Methylpentane-2,4-diol CAS-No.107-41-5
New Jersey Right To Know Components
2-Methylpentane-2,4-diol CAS-No.107-41-5
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.

Section XVI Other Information

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



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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	-	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