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

Section I Identification

Distribution Source----------> G.J. Chemical Co., Inc.
Street Address----------> 40 Veronica Avenue, Somerset, NJ 08873
Telephone Number----------> 973-589-1450
Emergency Telephone Number> 1-800-424-9300 Chemtrec

Product Name----------> Epoxy Resin 07-205
Product Number----------> 151401
Chemical Name or Synonyms--> A 100% reactive low viscosity liquid Bisphenol A based Epoxy Resin diluted with Alkyl glycidyl ether

Section II Ingredients

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Epoxy Resin (Reaction product bisphenol-A- epichlorohydrin) Ave. molecular weight <=700	25068-38-6 EC#500-033-5 Index-No.603-074-00-8	>50	N.E.
Alkyl glycidyl ether	68609-97-2 EC#271-846-8	<50	N.E.

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

Section III Health Hazard Data

Physical Appearance: Pale yellow mobile Liquid

EMERGENCY OVERVIEW:
~Irritating to eyes and skin
~May cause skin sensitization.
~Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
~OSHA Hazards: Skin sensitizer, Irritant

GHS Classification
Skin irritation (Category 2)
Eye irritation (Category 2A)
Skin sensitization (Category 1)
Acute aquatic toxicity (Category 2)
Chronic aquatic toxicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram

Signal word Warning
Hazard statement(s)
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
Precautionary statement(s)
P273 Avoid release to the environment.
P280 Wear protective gloves.
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> Causes eye irritation;

Skin> May be harmful if absorbed through skin. Causes skin irritation. Skin sensitization (Allergy) may be evidenced by rashes, especially hives;

Inhalation> May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion> May be harmful if swallowed. Not likely to be a relevant route of exposure.

Chronic: N/A

Medical Conditions Aggravated by Exposure> Preexisting skin and eye disorders may be aggravated by exposure to this product. Pre-existing skin or lung allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

Chronic: N/A
Medical Conditions Aggravated by Exposure> Pre-existing skin and eye disorders may be aggravated by exposure to this product. Pre-existing skin or lung allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

Section IV First Aid Measures

Emergency and First Aid Procedures:

Inhalation> Remove from exposure, restore breathing. Keep warm and quiet. Notify physician.

Eyes (Splash)> Immediately flush eyes with water for 15 minutes. Hold eyelids open for complete irrigation. Remove contact lenses, if worn, after initial flush. Rest eyes for 30 minutes, if redness, burning, blurred vision or swelling persist take to a physician.

Skin (Splash)> Wash affected area with soap and water. Remove contaminated clothing. Consult a physician if irritation persists. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes cannot be decontaminated and should be destroyed to prevent reuse.

Ingestion> Do not induce vomiting. Have victim rinse out mouth with water, then drink sips of water to remove taste from mouth. Consult a physician or poison control center, treat symptomatically.

Section V Fire and Explosion Hazard Data

Flash Point: >350°F (177°C) ASTM D93 **LEL %: N/A**
UEL %: N/A
Extinguishing Media - Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

Conditions of flammability: Not flammable or combustible.

Special Fire Fighting Procedures: Material will not burn unless preheated. Shut off source. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion when exposed to extreme heat. Wear NIOSH approved self-contained breathing apparatus for confined spaces and where there is exposure to vapors. Use full fire-fighting protective clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Unusual Fire and Explosion Hazards: Isolate fire and deny unnecessary entry. Keep containers tightly closed. Flammable liquid; isolate from all sources of ignition. Closed containers may explode when exposed to extreme heat. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Vapor is heavier than air and can travel considerable distance to a source of ignition and flashback. Liquid floats on water. Fine sprays/mists may be combustible at temp. below flash point.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

Section VI Accidental Release Measures

Protective Measures> Combustible; 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.

Spill Management> Use explosion proof equipment. Shut off valves, contain spill, keep out of water sources and sewers, for smaller spills add non-flammable absorbent such as clay or silica in spill area. For large spills use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent. 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. Keep all nonessential people away.

Section VII Handling and Storage

General Handling Information> Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

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

Do not take internally. Avoid prolonged or repeated contact with skin, eyes, and clothing. This resin may be handled, shipped and stored at elevated temperature in bulk. Product may crystallize in storage. Heating at 50-55°C will restore product to original form.

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

Avoid breathing vapors in top of shipping container. To prevent thermal burns avoid contact with hot product. Use with adequate ventilation.

Section VIII Exposure Controls and Personal Protection

General Considerations> Consider the potential hazards of this material (Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

Engineering Controls> Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

Respiratory Protection> No respiratory protection is usually required under normal conditions of use. If respiratory irritation is experienced, use an approved air-purifying respirator.

Protective Gloves> Butyl 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 ----------> Pale yellow liquid.
Odor----------> None
Boiling Range (°F)---------->Decomposes prior to boiling
Solubility in water----------> <1.0%@25°C
Vapor Density (air=1)----------> N/A
Evaporation Rate (Butyl Acetate=1)> N/A
Vapor Pressure----------> N/A
Specific Gravity----------> 1.11-1.16
Dynamic Viscosity----------> 5-7 P@25°C

Section X Stability and Reactivity Data

Stability: Unstable ( ) Stable (X)
Conditions to avoid--> Reaction with some curing agents may produce considerable heat. Run-a-way cure reactions may char and decompose the resin system. Avoid temperatures above 300°C. Pressure build-up can be rapid.

Incompatibility (Materials to Avoid)--> Can react vigorously with strong oxidizing agents, strong Lewis or mineral acids, and strong mineral and organic bases. Especially primary and secondary aliphatic amines. Do not allow molten product to contact water or other liquids. This can cause violent eruptions, splatter hot material, or ignite flammable material.

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

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
Epoxy Resin	13600mg/kg	20000mg/kg	

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

Recent 2-year bioassays in rats and mice exposed by the dermal route to the diglycidyl ether of bisphenol A yielded no evidence of carcinogenicity to the skin or any other organ.
These resins have shown activity in in vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells.
The significance of these tests to man is unknown.

Section XII Ecological Information

Ecotoxicity - Material is toxic to aquatic organisms
Toxicity to Fish:
LC50: Specie: Rainbow trout, Dose: 7.5mg/L 96hour;
EC50: Specie: Daphnia magna straus, Dose 3.3mg/L 24hour.

This material cannot be considered readily biodegradable. (OECD Biodegradation test results were 12% biodegraded after 28 days.

Bioconcentration potential is moderate.(BCF between 100 and 3000)
Potential for mobility in soil is low.(Koc between 500 and 2000)

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. Incinerate under controlled conditions in a permitted facility.

Section XIV Transport Information

USDOT
DOT Shipping Name----------> Not DOT Regulated
DOT Hazard Classification---->
DOT Label Codes----------->
DOT ID Number----------->
DOT Package Code----------->
Emergency Response Guide->
Marine Pollutant----------->

IMDG and IATA:
Shipping Name: Environmentally hazardous substance, liquid, n.o.s.

(Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700))
Hazard Class: 9
ID Number: UN3082
Packing Group: III

Section XV Regulatory Information

(RQ) Reportable Quantity-> CERCLA

Sara 302 - No TPQ
Sara 313 - No de minimis concentration

Sara Section 311 List Hazards:
(a) Immediate Acute Health>>>>>>>> N/A
(b) Delayed Chronic Health>>>>>>>> Yes
(c) Fire>>>>> N/A (d) Reactive>>>>> N/A
(e) Sudden Release of Pressure>>>>N/A

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components
Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700) CAS-No.25068-38-6
New Jersey Right To Know Components
Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700) CAS-No.25068-38-6
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.

Components not listed in Section II;

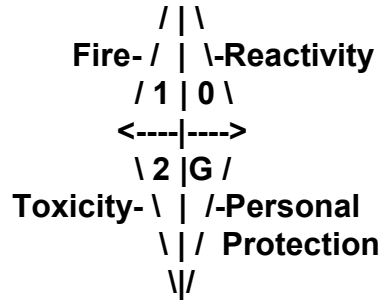
Phenyl Glycidyl Ether at <6ppm under California Safe Drinking Water & Toxic Enforcement Act was listed Oct. 1, 1990 as carcinogenic.

European Inventory of Existing Commercial Chemical Substances (EINECS)
Components of this product are not listed on EINECS because they are polymers or "no-longer polymers" marketed before the enforcement of the 7th Amendment to Directive 67/548/EEC

Section XVI Other Information

HMIS (Hazardous Materials Identification System)

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