

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

1. PRODUCT IDENTIFIER

PRODUCT NAME -----> **Epoxy Resin 06-190**
PRODUCT NUMBER(S)-----> 151400, 151404
TRADE NAMES AND SYNONYMS -> Bisphenol A/Epichlorohydrin based Epoxy
Average molecular weight <=700

CAS-No: 25068-38-6

CHEMICAL FAMILY: Diglycidyl Ether

RECOMMENDED USE: Resin for industrial coatings and floor coatings.
USES ADVISED AGAINST: No information available

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: **G.J. CHEMICAL CO., INC.**

Address: **40 VERONICA AVENUE
SOMERSET, NJ 08873**

Telephone: **1-973-589-1450**

Fax: **1-973-589-3072**

Emergency Telephone Number

Emergency Phone: **1-800-424-9300 (CHEMTREC)**

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)

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)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face protection.

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

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

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

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

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

Hazards not otherwise classified (HNOC) or not covered by GHS – Skin Contact with hot material can cause thermal burns. Can cause irritation of respiratory passages

3. INGREDIENTS

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Epoxy Resin	25068-38-6	100	Skin irritation (Category 2)
(Reaction product EC-No.500-033-5)			Eye irritation (Category 2A)
Bisphenol- Index-No.603-074-00-8			Skin sensitization (Category 1)
A-epichlorohydrin)			Acute aquatic toxicity (Category 2)
Ave. molecular weight			Chronic aquatic toxicity (Category 2)
<=700			

4. FIRST-AID PROCEDURES

INHALATION: EPOXY RESIN 06-190

****FIRST AID- 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: EPOXY RESIN 06-190

****FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). Do not reuse clothing until cleaned. Contaminated leather articles, including shoes cannot be decontaminated and should be destroyed to prevent reuse. If contact with a hot product occurs, immediately flush with cool water for 15 minutes and carefully remove clothing. If clothing is stuck to a burn area, do not pull it off, but cut around it. Cover a burn with clean material and get medical attention immediately. Get medical attention immediately.**

EYE CONTACT: EPOXY RESIN 06-190

****FIRST AID- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). 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.**

INGESTION: EPOXY RESIN 06-190

****FIRST AID- Do not induce vomiting. Never give anything by mouth to an unconscious person. 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.**

5. FIRE FIGHTING MEASURES

Flash Point: 252°C (486°F) PMCC

LEL %: N/A

UEL %: N/A

SUITABLE EXTINGUISHING MEDIA: Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

CONDITIONS OF FLAMMABILITY: Not flammable or combustible.

ADVICE FOR FIREFIGHTERS: Isolate fire and deny unnecessary entry. Keep containers tightly closed. Isolate from all sources of ignition. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. 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: Closed containers may explode when exposed to extreme heat. 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 a 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.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTIVE MEASURES: Eliminate ignition sources in the vicinity of the spill or released vapor. Avoid breathing vapors, mist or gas. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

METHODS FOR CONTAINMENT AND CLEAN UP: 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 residue. 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.

7. HANDLING AND STORAGE

PERSONAL PRECAUTIONARY MEASURES: Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. To prevent thermal burns avoid contact with hot product. Do not take internally.

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.

CONDITIONS FOR SAFE STORAGE: 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. 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. This resin may be handled, shipped and stored at elevated temperature in bulk. The recommended pumping temperature is 180F.

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.

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

EXPOSURE GUIDELINES:

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Epoxy Resin (Reaction product bisphenol-A- epichlorohydrin) Ave. molecular weight <=700	25068-38-6	100	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

EXPOSURE GUIDELINES: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

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

RESPIRATORY PROTECTION: No respiratory protection is usually required under normal conditions of use. If the respirator is the sole means of protection, use a full-face 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.

SKIN PROTECTION:

Employee must wear appropriate protective gloves to prevent contact with this substance. Nitrile rubber chemical resistant gloves.

EYE/FACE PROTECTION: Use safety eyewear with splash guards or face shield. Shower and eyewash should be located in an easily accessible location to the work area.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE, COLOR AND ODOR: Epoxy Resin 06-190/190C are clear viscous liquids with a mild odor.

ODOR THRESHOLD:	No Data Available
pH:	No Data Available
MOLECULAR WEIGHT:	700 amu average
MELTING POINT:	-15 - 5 °C (5 - 41 °F)
BOILING POINT:	>260°C (500°F)
SPECIFIC GRAVITY:	1.168@25°C
DENSITY (25°C):	1.168g/ml@25°C
VAPOR PRESSURE:	0.03mmHg@77°C(171°F)

VAPOR DENSITY:	9.6
WATER SOLUBILITY:	Negligible
PARTITION COEFFICIENT N-OCTANOL/WATER	log Pow: 2.8
FLASH POINT:	252 °C (486 °F) - closed cup
EVAPORATION RATE (BUTYL ACETATE=1):	Negligible
UPPER FLAMMABILITY LIMIT:	No data available
LOWER FLAMMABILITY LIMIT:	No data available
AUTO IGNITION TEMPERATURE:	No data available
DECOMPOSITION TEMPERATURE:	No data available
VISCOSITY:	10000-14000mPa.s@25°C
EXPLOSIVE PROPERTIES:	No data available
OXIDIZING PROPERTIES:	No data available
OTHER INFORMATION:	No data available

10. STABILITY AND REACTIVITY INFORMATION

CHEMICAL STABILITY: Unstable () Stable (X)

POSSIBILITY OF HAZARDOUS REACTIONS: 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.

CONDITIONS TO AVOID: No data available

INCOMPATIBLE MATERIALS: 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)

11. TOXICOLOGICAL INFORMATION

ACUTE HEALTH EFFECTS:

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

Effects of overexposure:

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.

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
Epoxy Resin	13600mg/kg	20000mg/kg	

MUTAGENIC EFFECTS: These resins have shown activity in vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells. The significance of these tests to man is unknown. Germ cell mutagenicity Ames test: Result: positive

CARCINOGEN STATUS: 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.

REPRODUCTIVE TOXICITY: No data available

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

ADDITIONAL INFORMATION: 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.

12. ECOLOGICAL INFORMATION

DANGEROUS TO AQUATIC LIFE IN HIGH CONCENTRATIONS

May be dangerous if it enters water intakes.
Notify local health and pollution control officials.
Notify operators of nearby water intakes.

AQUATIC TOXICITY:

Toxicity to Fish

LC50: Specie : Forelle, Dose: 2.4mg/L 96hour;

EC50: Specie: Daphnia magna straus, Dose 3.6mg/L 24hour.

IC50; bacteria, growth inhibition, 18h>42.6mg/L

WATERFOWL TOXICITY: None available

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

BIOLOGICAL OXYGEN DEMAND (BOD):No Data Available

BIOACCUMULATION: LOG Pow 2.8

BIOCONCENTRATION FACTOR (BCF): Bioconcentration potential is moderate.(BCF between 100 and 3000)

MOBILITY IN SOIL: low.(Koc between 500 and 2000)

FOOD CHAIN CONCENTRATION POTENTIAL: None noted

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.

CONTAMINATED PACKAGING: Dispose of as unused product.

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

14. TRANSPORT INFORMATION

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

IMDG

UN number: 3082 Class: 9 Packing group: III EMS-No: F-A, S-F
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number
average molecular weight <= 700))
Marine pollutant: No

IATA

UN number: 3082 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s.
(Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number
average molecular weight <= 700))

15. REGULATORY INFORMATION

SARA TITLE III (Superfund Amendment and Reauthorization Act)

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

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65)- Not Listed

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

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

SECTION 102(A) Hazardous Substances (40 CFR 302.4)- Not Listed

Reportable Quantity – None

SECTION 101(14) Reportable Quantity: None

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 III;

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

TSCA (Toxic Substance Control Act)

**bisphenol-A-(epichlorhydrin) and epoxy resin
(number average molecular weight <= 700) CAS-No.25068-38-6 is listed on the TSCA Inventory.**

16. OTHER INFORMATION:

HMIS (Hazardous Materials Identification System)

Hazard Rating:

4-Extreme

3-High

2-Moderate

1-Slight

0-Insignificant

NFPA RATINGS (SCALE 0-4): Health=2 Fire=1 Reactivity=0

HMIS RATINGS (SCALE 0-4): Health=2 Fire=1 Reactivity=0 PPE=G

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

Date of preparation-----> December 11, 2006

Revision Number-----> 2.3

Revision Date-----> July 5, 2015

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

Acronyms:

ACGIH - American Conference of Governmental Industrial Hygienists
AIHA - American Industrial Hygiene Association
ANSI - American Nation Standards Institute
API - American Petroleum Institute
CERCLA - Comprehensive Emergency Response, Compensation, and Liability Act
DOT - U.S. Department of Transportation
EPA - U.S. Environmental Protection Agency
HMIS - Hazardous Materials Information System

IARC	-	International Agency For Research On Cancer
MSHA	-	Mine Safety and Health Administration
NFPA	-	National Fire Protection Association
NIOSH	-	National Institute of Occupational Safety and Health
NOIC	-	Notice of Intended Change (Proposed change to ACGIH TLV)
NTP	-	National Toxicology Program
OPA	-	Oil Pollution Act of 1990
OSHA	-	U.S. Occupational Safety & Health Administration
PEL	-	Permissible Exposure Limit (OSHA)
RCRA	-	Resource Conservation and Recovery Act
REL	-	Recommended Exposure Limit (NIOSH)
SARA	-	Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA	-	Self-Contained Breathing Apparatus
STEL	-	Short-Term Exposure Limit (generally 15 minutes)
TLV	-	Threshold Limit Value
TSCA	-	Toxic Substances Control Act
TWA	-	Time Weighted Average (8hr.)
WHMIS	-	Canadian Workplace Hazardous Materials Information System

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