

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

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME-----> **Polyethylene Glycol 3350**

PRODUCT NUMBER(S)----> Product No. 119040 – Carbowax 3350 NF/FCC Grade
Product No. 232500 – PEG 3350 Technical Grade
Product No. 232540 - PEG 3350 NF Grade

TRADE NAMES AND SYNONYMS -> Polyglycol, PEG, Poly(oxyethylene}
Glycol, α -Hydro- ω -hydroxy-poly(oxy-1,2-
ethanediyl) M ~ 3350

CAS-No: 25322-68-3

CHEMICAL FAMILY: Glycols, Diols

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

RECOMMENDED USE: Industrial: Lubricants for rubber molds, Use as a plasticizer, Foaming of polyurethane, Detergents, Pharma application, Use in food packing.

Consumer: End use in cosmetics, Used in writing articles, pharma application.

USES ADVISED AGAINST: No information available

1.3 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**

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)

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

Pictogram none

Signal word: none

Hazard statement(s)

Not a hazardous substance or mixture.

Precautionary statement(s)

Not a hazardous substance or mixture.

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

3. INGREDIENTS

3.1 SUBSTANCE:

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Polyethylene Glycol 3350	25322-68-3	100	Not a hazardous substance or mixture
	EC-No.500-038-2		
	Reg.-No. 01-2119958801-32-XXXX		

3.2 MIXTURE: Not applicable.

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

INHALATION: Polyethylene Glycol 3350

Remove from exposure to fresh air. Keep warm and quiet. Notify physician.

EYES (SPLASH): Polyethylene Glycol 3350

Flush eyes with water for 15 minutes, retract eyelids often to irrigate. Remove contact lenses, if present, after first flush. Obtain medical attention if pain, tears or redness persist.

SKIN (SPLASH): Polyethylene Glycol 3350

Wash affected area with soap and water. Remove contaminated clothing.

INGESTION: Polyethylene Glycol 3350

Do not induce vomiting. Wash out mouth with water. Get medical aid if irritation or symptoms occur. Never give anything by mouth to an unconscious person. If large amounts are swallowed, consult a physician. Drink several glasses of water to dilute. Monitor for acidosis and central nervous system change. Exposed persons with previous kidney dysfunction may require special treatment.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Eye: May cause mild eye irritation;

Skin: No evidence of harmful effects;

Inhalation: Low vapor pressure at ambient temperature indicating that it has limited inhalation hazard. Vapor formed by heating the material may cause respiratory tract irritation.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Chronic: Although this material is not a skin irritant, submersion by workers of unprotected skin in highly concentrated solutions of this material for prolonged periods of time could result in skin dehydration. Overexposure to vapor generated at high temperatures may result in eye and respiratory tract irritation, dizziness, nausea and the inhalation of harmful amounts of material.

Medical Conditions Aggravated by Exposure: None known

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: >113°C (>235.4°F) Closed Cup LEL %:N.D.

AUTO-IGNITION TEMP: 305°C (581°F) UEL %:N.D

UNIFORM FIRE CODE: Combustible Liquid Class IIIB

5.1 SUITABLE EXTINGUISHING MEDIA: 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

MIXTURE: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperatures and pressure, or sudden

ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources.

CONDITIONS OF FLAMMABILITY: Not flammable or combustible.

HAZARDOUS 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.

5.3 ADVICE FOR FIREFIGHTERS: Shut off source. Shut off source. Do not spray pool fires directly. A solid stream of water or foam directed into hot burning liquid can cause frothing and increase fire intensity. Where, exposure to vapors exist, wear NIOSH/MSHA approved self-contained breathing apparatus (SCBA) and full fire-fighting protective gear. Water fog may be used to cool closed containers to prevent pressure build up.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Avoid dust formation. Avoid breathing vapors, mist or gas. 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:
No special environmental precautions required.

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 such as clay or silica in spill area. Forms smooth, slippery surfaces on floors, posing an accident risk. 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.

Methods for disposal:

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.

6.4 REFERENCE TO OTHER SECTIONS: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: Do not take internally. Avoid prolonged or repeated contact with skin, eyes, and clothing. Avoid breathing vapors in top of shipping container. Use with adequate ventilation.

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.

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.

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. 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. Storage class (TRGS 510): Non Combustible Solids.

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.

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 WT. Range	Exposure Limits
Polyethylene Glycol 3350	25322-68-3 EC-No.500-038-2 Reg.-No. 01-2119958801-32-XXXX	100	10mg/M3 (WEEL)

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.

RESPIRATORY PROTECTION: 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 (WEEL) TWA use an air purifying NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times (WEEL) TWA, in confined areas, and/or where vapor concentrations are unknown use a NIOSH/MSHA approved positive pressure full face-piece supplied air respirator (SCBA).

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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

HYGIENE: 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:

Polyethylene Glycol 3350 25322-68-3

Appearance-----> Solid Flake
Color-----> White
Odor-----> Mild odor
Odor Threshold-----> No data available
pH-----> 5.5 - 7.0 at 50 g/l at 25 °C (77 °F)
Molecular Weight-----> 3015-3685 amu
Melting/Freezing Point-----> 54-58°C (129-136°F)
Boiling Point initial -----> >200°C (>392°F)
Specific Gravity-----> 1.204 @25°C (77°F)
Vapor Pressure-----> <0.01 mmHg@20°C (68°F)
Vapor Density (air=1)-----> >10
Water Solubility-----> 67%@20°C (68°F)
Partition Coefficient n-Octanol/Water-> No data available
Evaporation Rate (Butyl Acetate=1)----> No data available
Flash Point-----> >113.00°C (>235.40°F) - closed cup
Upper Flammability Limit-----> No data available
Lower Flammability Limit-----> No data available
Auto-Ignition Temperature-----> 305°C (581°F)
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 REACTIVITY: No data available.

10.2 CHEMICAL STABILITY: Unstable () Stable (X)

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: No data available

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

10.4 CONDITIONS TO AVOID: Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame. At elevated temperatures flammable vapors will form.

10.5 INCOMPATIBLE MATERIALS: Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Fumes, Smoke, Carbon Monoxide, Carbon Dioxide, and aldehydes.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

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

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> May cause mild eye irritation;

Skin> No evidence of harmful effects;

Inhalation> Low vapor pressure at ambient temperature indicating that it has limited inhalation hazard. Vapor formed by heating the material may cause respiratory tract irritation.

Ingestion> Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Chronic: Although this material is not a skin irritant, submersion by workers of unprotected skin in highly concentrated solutions of this material for prolonged periods of time could result in skin dehydration. Overexposure to vapor generated at high temperatures may result in eye and respiratory tract irritation, dizziness, nausea and the inhalation of harmful amounts of material.

Medical Conditions Aggravated by Exposure> None known

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	

Polyethylene Glycol 3350	40000mg/kg	20000mg/kg	N.D.
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SKIN CORROSION/IRRITATION: No data available

SERIOUS EYE DAMAGE/EYE IRRITATION: No data available

RESPIRATORY OR SKIN SENSITIZATION: No data available.

MUTAGENIC EFFECTS: No data available.

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.

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

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 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

11.2 ADDITIONAL DATA: No data available

12. ECOLOGICAL INFORMATION

12.1 AQUATIC TOXICITY:

Toxicity to fish: No data available

12.2 PERSISTANCE AND DEGRADABILITY: No data available

Biological Oxygen Demand (BOD): No data available

12.3 BIOACCUMULATIVE POTENTIAL: No data available

Bio-concentration Factor (BCF): No data available

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 CONSIDERATIONS

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. Polyethylene Glycol is a non hazardous waste as defined by RCRA (40CFR261). Dispose in accordance with all applicable disposal regulations.

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

Land Transport (DOT)

14.1 USDOT ID Number-----> N/A

**14.2 USDOT Shipping Name-----> Not DOT Regulated
Not Dangerous Goods**

14.3 USDOT Hazard Classification-----> N/A

USDOT Label Codes-----> N/A

14.4 USDOT Package Code-----> N/A

14.5 Environmental hazard-----> No

14.6 Special precautions for user-----> None

Sea Transport (IMDG)

14.1 UN Number:-----> N/A

14.2 Proper Shipping Name-----> Not Dangerous Goods

14.3 Hazard Class:-----> N/A

USDOT Label Codes-----> N/A

14.4 Packing Group:-----> N/A

14.5 Environmental hazard-----> No

Air Transport (IATA)

- 14.1 UN Number:-----> N/A
- 14.2 Proper Shipping Name:-----> Not Dangerous goods
- 14.3 Hazard Class:-----> N/A
 USDOT Label Codes-----> N/A
- 14.4 Packing Group:-----> N/A
- 14.5 Environmental hazard-----> 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) - Not Listed

SECTION 311/312: Hazard Categorization (40 CFR 370) – No SARA hazards

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

Ethylene Oxide and 1, 4 Dioxane are present in trace amounts not to exceed 10ppm.

Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components

α-Hydro-ω-hydroxy-poly(oxy-1,2-ethanediyl) M ~ 3350 CAS-No.25322-68-3

New Jersey Right to Know Components

α-Hydro-ω-hydroxy-poly(oxy-1,2-ethanediyl) M ~ 3350 CAS-No.25322-68-3

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.

TSCA (Toxic Substance Control Act)

α-Hydro-ω-hydroxy-poly(oxy-1,2-ethanediyl) M ~ 3350 CAS-No.25322-68-3 is listed on the TSCA Inventory.

International Inventories:

<u>Country or Region</u>	<u>Inventory Name</u>	<u>On inventory yes/no</u>
<u>Australia</u>	Australian Inventory of Chemical Substances (AICS)	Yes
<u>Canada</u>	Domestic Substances List (DSL)	Yes
<u>Canada</u>	Non-Domestic Substances List (NDSL)	No
<u>China</u>	Inventory of Existing Chemical Substances in China (IECSC)	Yes
<u>Europe</u>	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
<u>Europe</u>	European List of Notified Chemical Substances (ELINCS)	No
<u>Japan</u>	Inventory of Existing and New Chemical Substances (ENCS)	Yes
<u>Japan</u>	Industrial Safety & Health Law Inventory (ISHL)	Yes
<u>Korea</u>	Existing Chemicals List (ECL)	Yes
<u>Mexico</u>	National Inventory of Chemical Substances (INSQ)	Yes
<u>New Zealand</u>	New Zealand Inventory	Yes
<u>Philippines</u>	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
<u>Switzerland</u>	Inventory of Notified New Substances (CHINV)	Yes
<u>Taiwan</u>	National Existing Chemical Inventory (NECI)	Yes
<u>United States & Puerto Rico</u>	Toxic Substances Control Act Inventory	Yes

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has been carried out for this substance.

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

Hazard statement(s) from Section 2 and 3:
Not a hazardous substance or mixture.

Date of preparation-----> July 22, 2003

Revision Number-----> 1.5

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

Revision Date-----> November 7, 2018

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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