

1. IDENTIFICATION OF THE SUBSTANCE

Supplier of the SDS:

Genesis Poly
2101 E. Murray-Holladay Rd., Suite 100
Holladay, UT 84117

Office: 801-208-5598

Email: Info@genesispoly.com

Spill, leak, fire, exposure, accident, call Infotrac (24/7)

Infotrac (24/7): 1-800-535-5053

Outside the US: 1-352-323-3500

Medical Emergency: 1-800-535-5053

Email: ECG@genesischemco.com

2. GHS HAZARDS IDENTIFICATION

GHS Ratings:

Carcinogen	2	Limited evidence of human or animal carcinogenicity
Eye Corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 Days
Inhalation Toxicity	Acute Tox. 4	Gases>2500+<=5000ppm, Vapors>10+<=20mg/l, Dusts & Mists>1+<=5mg/l
Organ Toxin – Single Exposure	3	Transient target organ effects–Narcotic effects–Respiratory tract irritation
Organ Toxin – Repeated Exposure	2	Presumed to be harmful to human health–Animal studies with significant toxic effects relevant to humans at generally moderate exposure
Respiratory Sensitizer	1	Respiratory Sensitizer
Skin corrosive	2	Reversible adverse effects in the dermal tissue, Draize score: >=2.3<4.0 or persistent inflammation

GHS Hazards:

H315	Causes Skin Irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma or breathing difficulties if inhaled
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged exposure

GHS Precautions:

P201	Obtain special instruction before use
P202	Do not handle until all safety precautions have been read and understood
P260	Do not breathe dust, fume, gas, mist, vapors, spray
P261	Avoid breathing dust, fume, gas, mist, vapors, spray
P264	Wash exposed skin thoroughly after handling
P271	Use only outdoors or in well-ventilated areas
P272	Contaminated work clothing should not be allowed out of work area
P280	Wear protective gloves, protective clothing, eye protection, and face protection
P281	Use personal protective equipment as required
P285	In case of inadequate ventilation wear respiratory protection
P302, P352,	IF ON SKIN: Wash with soap and water
P304, P340	IF INHALED: Remove victim to fresh air and keep in a rest position
P304, P341	IF INHALED: If breathing is difficult, move victim into fresh air and keep at rest in a comfortable position
P305, P351,	IF IN EYES: Rinse continuously with water for several minutes. If present, remove contact lenses and continue rinsing
P338	
P308, P313	If exposed or concerned, seek medical advice
P332, P313	If skin irritation occurs, seek medical attention
P333, P313	If skin irritation occurs, seek medical attention
P337, P313	Get medical advice/attention
P342, P311	Call a Poison Center or physician
P362	Take off contaminated clothing and wash before reuse
P405	Store locked up
P501	Dispose of contents and container in accordance with applicable regional, national, and local regulations

GHS Warnings:



3. COMPOSITION / INFORMATION OF INGREDIENTS

Chemical Name	CAS No.	Weight-%	OSHA Exposure Limits	ACGIH Exposure Limits
4,4'-Methylenediphenyl diisocyanate	101-68-8	30 to 40%	PELs - 0.02 ppm Ceiling PELs - 0.2 mg/m ³ Ceiling	TLV - 0.005 ppm TWA (listed under Methylene diisocyanate)
Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	30 to 40%	OELs not established	OELs not established
Propylene carbonate	108-32-7	10 to 20%	OELs not established	OELs not established
Isocyanic acid, polymethylenepolyphenylene ester, polymer with .alpha.- methyl-.omega.-hydroxypoly (oxy-1,2-ethanediyl)	70644-56-3	1 to 5%	OELs not established	OELs not established

The exact percentage of composition has been withheld as a trade secret

4. FIRST-AID MEASURES

General Advice	If exposed, breathe in fresh air. If breathing is labored, oxygen should be administered by a qualified person.
Eye Contact	In case of contact, flush eyes with water immediately (for at least 15 minutes). Seek medical attention immediately.
Skin Contact	In case of contact, wash immediately with plenty of warm soapy water. Continue to rinse for at least 10 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Inhalation	Breathe in fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Call a physician.
Ingestion	Do not induce vomiting unless directed otherwise by medical personnel. Do not give anything by mouth to an unconscious person. If the patient is conscious, proceed with washing out their mouth with water. Get medical attention if symptoms appear.

5. FIRE-FIGHTING MEASURES

CAUTION: Heating or Fire can release toxic gas, due to reaction with water producing CO2 gas, hazardous pressure build-up could result if containers are resealed. Containers can also burst if overheated.

Extinguishing Media	Foam, CO2 or dry powder. (Note: Water may be used if no other media is available AND used in copious quantities. Use water only if no other options are available. The reaction between water and hot material can be vigorous. Prevent washings from entering water courses, keep fire-exposed containers cool by spraying with water.)
Hazardous Decomposition Products	Combustion products may include: carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons, and HCN.
Protective Equipment and Precautions for Fire-fighters	If there is a fire, promptly isolate the scene by removing everyone from the vicinity of the incident. No action should be taken without suitable training or that involves any personal risk. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Gloves, PVC boots, safety helmet and protective clothing should be worn.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

No action shall be taken without suitable training or that involves any personal risk. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions

Avoid dispersal of spilled material (and runoff) and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Method and material for containment

If there is no risk, stop leak. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material, e.g., sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where material is handled, stored and processed. Workers should wash their hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get material in eyes or on skin or clothing.

Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material. Keep tightly closed when not in use. Empty containers retain product residue and may be hazardous.

Conditions for Safe Storage

Material is to be stored in accordance with local regulations. Store in original container protected from direct sunlight in a dry and well-ventilated area, away from incompatible materials (see Section 10), and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not reseal contaminated containers. Uncontaminated containers, free of moisture, may be resealed only after placing under a nitrogen blanket. Do not store in unlabeled containers.

Unsuitable Containers

Do not store in containers made of copper, copper alloys, or galvanized surfaces.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Smell is not an adequate indicator of hazard.

Medical supervision of all employees who handle or come in contact with respiratory sensitizers is recommended. Personnel with a history of asthma-type conditions, bronchitis or skin sensitization conditions should not work with this material.

Ventilation

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Respiratory Protection

In case of inadequate ventilation, wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Skin Protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye Protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

General Considerations

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Boiling Point	No Data	Vapor Pressure	No Data
Color	Pale Yellow to Amber	Melting Point	No Data	Vapor Density	No Data
		Flash Point	>226 F, >130 C	Solubility	No Data
pH	No Data	Evaporation Rate	No Data	Specific Gravity	1.23
Odor	Faint Odor	Flammability	No Data	Partition Coefficient	No Data
Odor Threshold	No Data	Explosive Limits	No Data	Autoignition Temperature	No Data
% Weight Volatile (VOC)	0.00	Decomposition Temperature	No Data	Viscosity	No Data

10. STABILITY AND REACTIVITY

Chemical Stability

Stable at room temperature. No specific test data related to reactivity is currently available.

Hazardous Reactions

A reaction with moisture produces CO₂ gas. Materials containing active hydrogen groups can create an exothermic reaction. The reaction can increase in violence and vigor at higher temperatures if the miscibility of the reaction partner is good, stirring occurs, or at the presences of solvents. This material is both insoluble and heavier than water. It will sink to the bottom and react slowly at the interface. A solid water insoluble layer of polyurea is formed by liberating carbon dioxide.

This material is reactive with the following chemicals: Water, Alcohols, Amines, Bases and Acids

11. TOXICOLOGICAL INFORMATION

Routes of Entry

Inhalation Skin Contact Eye Contact

Target Organs

Eyes Lungs Skin Respiratory System

Effects of Overexposure

No data

Carcinogenicity

Chemical Name	CAS No	% Weight
4,4'-Methylenediphenyl diisocyanate	101-68-8	30-40%
Isocyanic acid, polymethylenepolyphenylene ester, polymer with .alpha.-methyl-.omega.-hydroxypoly (oxy-1,2-ethanediyl)	70644-56-3	1-5%

Inhalation Toxicity LC50: 1mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity – No testing has been completed on this mixture related to ecological impact. The below information is based on components only.

Propylene carbonate

72 Hr EC50 *Desmodesmus subspicatus*: >500 mg/L; 96 Hr LC50 *Cyprinus carpio*: >1000 mg/L [semi-static]; 48 Hr EC50 *Daphnia magna*: >500 mg/L

13. DISPOSAL CONSIDERATIONS

- Disposal of Waste** Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewer.
- Contaminated Packaging** Empty containers may retain some product residues. This material and its container must be disposed of safely. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Always follow regional, national, and local laws and regulations when disposing material or containers.

14. TRANSPORT INFORMATION

The below information does not convey all specific regulatory information or requirements relating to this product

Agency	Proper Shipping Name	UN Number	Group	Hazard Class
DOT	Not Regulated			
IATA	Not Regulated			
IMDG	Not Regulated			

**Transportation classifications may vary by container volume and by local, regional or national regulations.*

It is the responsibility of the transporting organization to follow all applicable laws, regulations, and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

International Inventories

- TSCA (Toxic Substances Control Act)** Complies
- SARA 313 (Superfund Amendments and Reauthorization Act)** The below listed components are subject to the reporting requirements of the Act and Title 40
 - Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9 30-40%
 - 4,4'-Methylenediphenyl diisocyanate 101-68-8 30-40%

US State Regulations

California Proposition 65 – This product contains a chemical(s) known to the state of California to cause cancer or birth defects or other reproductive harm.

16. OTHER INFORMATION

HMIS <small>Hazardous Material Information System</small>	Health Hazards *2	Flammability 1	Physical Hazards 1	Personal Protection X
NFPA <small>National Fire Protection Association</small>	Health Hazards 2	Flammability 1	Instability 1	Special

HMIS and NFPA Hazard Rating Legend	
*	Chronic Health Hazard
0	INSIGNIFICANT
1	SLIGHT
2	MODERATE
3	HIGH

WHMIS Symbols



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Disclaimer

The information contained on the Safety Data Sheet has been compiled from data considered accurate. This data is believed to be reliable at the date of this publication. It is important to note that values for certain properties can vary from source to source. Genesis Poly LLC, expressly disclaims any warranty express or implied as well as any liability for any injury or loss arising from the use of this information or the materials described. No responsibility will be assumed for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. This data should not be construed as absolutely complete since additional data may be needed when particular conditions or circumstances exist. It is the responsibility of the user to determine the best precautions necessary for the safe handling and use of this product for each unique application. This data relates only to this specific material and is not to be used in combination with any other materials. Many federal and state regulations pertain directly or indirectly to the product's end use and disposal of containers and unused material. It is the purchaser's responsibility to familiarize himself with all applicable regulations prior to use. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

END OF SAFETY DATA SHEET