

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
Skin Sensitizer	1	Skin Sensitizer

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
- H335 May cause respiratory irritation
- H351 Suspected of causing cancer

- H373 May cause damage to organs through prolonged exposure

GHS Warnings:



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, P304, P340 IF ON SKIN: Wash with soap and water
IF INHALED: Remove victim to fresh air and keep in a rest position
- P304, P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a comfortable position

- P305, P351, P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and able to do – continue rinsing
- P308, P313 If exposed or concerned, Seek medical advice
- P312 Call a Poison Center or physician if you feel unwell
- P314 Get medical advice or attention if you feel unwell
- P321 Specific Treatment (as detailed on label)
- P332, P313 If skin irritation occurs, seek medical advice / attention
- P333, P313 If skin irritation or rash occurs, seek medical advice / attention
- P337, P313 Get medical advice / attention

P342, P311	Call a Poison Center or Physician
P362	Take off contaminated clothing and wash before reuse
P363	Was contaminated clothing before reuse
P403, P233	Store in a well-ventilated place. Keep container tightly closed
P405	Store locked up
P501	Dispose of contents and container in accordance with applicable regional, national, and local regulations

3. COMPOSITION / INFORMATION OF INGREDIENTS

Chemical Name	CAS No.	Weight-%
Polyurethane Prepolymer	68092-58-0	29-54%
4,4'-Methylenediphenyl diisocyanate	101-68-8	32-60%
Propylene carbonate	108-32-7	4-7%

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

4. FIRST AID MEASURES

General Advice	If symptoms persist, call a physician. Do not get in eyes, on skin, or on clothing
Eye Contact	Immediately flush eyes with water for at least 15 minutes, Get medical attention immediately
Skin Contact	Wash immediately with plenty of warm, soapy water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Clean shoes thoroughly before reuse. A poly-glycol based skin cleaner or corn oil can be more effective than soap and water.
Inhalation	Remove to 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 Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water only if no other options are available. The reaction between water and hot material can be vigorous.

Hazardous Decomposition Products Combustion products may include: carbon monoxide, carbon dioxide, nitrogen oxides, and hydrocarbons

Protective Equipment and Precautions for Fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Promptly isolate the scene by removing all persons from the vicinity if there is a fire.
Specific hazards arising from the chemical	The product causes irritation of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of a fire, Do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. 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

Stop leak if without risk. 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 hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get into eyes.

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, kept 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 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.

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

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. When using do not eat, drink or smoke. Wash contaminated clothing before reuse. 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	200 °C	Vapor Pressure	No Data
Appearance	Opaque	Melting Point	No Data	Vapor Density	No Data
Color	Pale Yellow to Amber	Flash Point	105 °C	Solubility	No Data
pH	No Data	Evaporation Rate	Slower than ether	Specific Gravity	1.09
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 insoluable and heavier than water. It will sink to the bottom and react slowly at the interface. A solid water insoluable layer of polyurea is formed by liberating carbon dioxide.

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

11. TOXICOLOGICAL INFORMATION

Information of routes of exposure

Product Information	Avoid contact with skin, eyes, and inhalation of vapors
Inhalation	Avoid breathing vapors or mists. May be harmful if inhaled
Eye contact	Causes serious eye irritation
Skin contact	Irritating to skin
Ingestion	Do not taste or swallow. Harmful if swallowed

Component Information

Chemical Name	CAS No	Inhalation LC50	Dermal LD50
Propylene Carbonate	108-32-7	-	20 mL/kg (Rabbit)
Benzene, 1, 1'-methylenebis	26447-40-5	0.37 mg/L (Rat)	-

Measures of Toxicity

ATEmix (Inhalation LC50) 1 mg/L
ATEmix (dermal LD50) 4,030 mg/kg

Exposure Effects

Sensitization No Information Available
Carcinogenicity Contains Carcinogens
Reproductive Toxicity No Information Available
Aspiration hazard No Information Available

Carcinogenicity

Chemical Name	CAS No	% Weight
4,4'-Methylenediphenyl diisocyanate	101-68-8	20-30
Benzene, 1,1'-methylenebis[4-isocyanato-, homopolymer	25686-28-6	5-10
Benzene, 1,1'-methylenebis [isocyanato-	26447-40-5	0.1 – 1.0

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
Benzene, 1,1'-methylenebis [isocyanato- 14 Days LC50 *Eisenia foetida*: >1000 mg/kg [soil dry weight]; 14 Days NOEC *Eisenia foetida*: >=1000 mg/kg [soil dry weight]

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 in a safe way. 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

4,4'-Methylenediphenyl diisocyanate	01-68-8	20-30%
Polyurethane prepolymer	68092-58-0	29-54%
4-Methyl-1,3-Dioxolan-2-One	108-32-7	4-7%

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

Hazardous Material Information System

Health Hazards *2 Flammability 1 Physical Hazards 1 Personal Protection X

NFPA

National Fire Protection Association

Health Hazards 2 Flammability 1 Instability 1 Special X

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