

BAYONE URETHANE SYSTEMS LLC

**BayOne™**
URETHANE SYSTEMS
A Bayer Polymers and PolyOre Joint Venture

MATERIAL SAFETY DATA SHEET

POLY FF2990 NEUTRALVersion Number 1.3
Revision Date 04/06/2004Page 1 of 6
Print Date 5/17/2004**1. PRODUCT AND COMPANY IDENTIFICATION****BAYONE URETHANE SYSTEMS LLC**
2700 Papin Street, St. Louis, MO 63103

Telephone : Product Stewardship (314) 333-7870
Emergency telephone : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure**
number : **or accident).**

Product name : POLY FF2990 NEUTRAL
Product code : FO00004556PA
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
1,2,3-Propanetriol	56-81-5	1 - 5
Ethylene glycol	107-21-1	1 - 5

3. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions.

POTENTIAL HEALTH EFFECTS**Routes of Exposure:** : Eyes, Skin contact, Inhalation, Ingestion**Acute exposure**

Inhalation : Excessive inhalation of product vapors, especially during heating or processing, may be irritating to respiratory system.
Ingestion : May be harmful if swallowed.
Eyes : Mild eye irritation
Skin : Prolonged or repeated skin contact can cause de-fatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Chronic exposure : Refer to Section 11 for Toxicological Information.**Medical Conditions** : None known.**Aggravated by Exposure:**



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- Inhalation : Move to fresh air in case of accidental inhalation of vapors or fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice.
- Ingestion : Drink 1 or 2 glasses of water. Induce vomiting immediately and call a physician. Never give anything by mouth to an unconscious person.
- Eyes : Immediately flush eye(s) with plenty of water. Seek medical attention if necessary.
- Skin : Wash off immediately with soap and plenty of water. If skin irritation persists seek medical attention.

5. FIRE-FIGHTING MEASURES

- Flash point : Greater than 200 °F (93 °C)
- Flammable Limits
Upper explosion limit : No data available
Lower explosion limit : No data available
Autoignition temperature : No data available
Suitable extinguishing media : carbon dioxide (CO₂), dry chemical, water spray, alcohol-resistant foamnone.
- Special Fire Fighting Procedures : Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.
- Unusual Fire/Explosion Hazards : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls. Material can create slippery conditions.
- Environmental precautions : The product should not be allowed to enter drains, water courses or the soil. Should not be released into the environment.
- Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Package all material in appropriate container for disposal. Refer to Section 13 of this MSDS for proper disposal methods.

7. HANDLING AND STORAGE

- Handling : Heat only in areas with appropriate exhaust ventilation.



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Storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store in a cool dry place. Product is hygroscopic. Protect from moisture. Keep drums tightly closed to prevent contamination.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection : Under normal handling conditions a respirator may not be required.

Eye/Face Protection : Safety glasses with side-shields.

Hand protection : Protective gloves.

Skin and body protection : Long sleeved shirts and long pants are adequate for normal handling. Where operations present a splash or spill potential, employees should wear chemically resistant clothing, boots, apron, gloves, and eye/face protection.

Additional Protective Measures : Safety shoes.

General Hygiene Considerations : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Engineering measures : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.

Exposure limit(s)

Components	Value	Exposure time	Exposure type	List:
1,2,3-Propanetriol	10 mg/m3	Time Weighted Average (TWA):	Mist.	ACGIH
	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
Ethylene glycol	100 mg/m3	Ceiling Limit Value:	Aerosol.	ACGIH

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid	Evaporation rate	: Negligible
Appearance	: Viscous	Specific Gravity:	: > 1
Color	: NO PIGMENT	Bulk density	: Not applicable
Odor	: mild	Vapor pressure	: <0.04 mm Hg @ 20°C
Melting point/range	: No data available	Vapour density	: Heavier than air.
Boiling Point:	: Not established	pH	: No data available
Water solubility	: slightly soluble		

10. STABILITY AND REACTIVITY

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Stability : Stable.

Hazardous Polymerization : Will not occur.

Conditions to avoid : Heating the product above 212 °F (100 °C) in the presence of air may result in the formation of aldehydes. Product reacts exothermically with isocyanates.

Incompatible Materials : strong acids and strong bases

Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible.

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
56-81-5	1,2,3-Propanetriol	Irritant	Eyes.
107-21-1	Ethylene glycol	Systemic effects	Eyes, Skin, Respiratory system, central nervous system (CNS).

LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
56-81-5	1,2,3-Propanetriol	LC50	> 570 mg/m ³	rat
		Oral LD50	4,090 mg/kg	mouse
		Dermal LD50	> 10 gm/kg	rabbit
107-21-1	Ethylene glycol	Oral LD50	4,700 mg/kg	rat
		Dermal LD50	9530 ul/kg	rabbit

Additional Health Hazard Information:

Ethylene glycol 107-21-1 The metabolites may cause reproductive as well as developmental toxicity or birth defects.

12. ECOLOGICAL INFORMATION

Persistence and degradability : No data available

Environmental Toxicity : No data available

Bioaccumulation Potential : Does not bioaccumulate.

Additional advice : No data available

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- Product : Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.
- Contaminated packaging : Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

14. TRANSPORT INFORMATION

- U.S. DOT Classification : Refer to specific regulation.
- ICAO/IATA (air) : Refer to specific regulation.
- IMO / IMDG (maritime) : Refer to specific regulation.

15. REGULATORY INFORMATION

US Regulations:

- OSHA Status : Classified as hazardous based on components.
- TSCA Status : All components of this product are listed on or exempt from the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Not applicable

- California Proposition 65 : This product does not contain a substance listed by California Prop 65.

SARA Title III Section 302 Extremely Hazardous Substance

Not applicable

SARA Title III Section 313 Toxic Chemicals:

Chemical Name	CAS-No.	Weight %
ETHYLENE GLYCOL	107-21-1	1.86

Canadian Regulations:



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National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight %	NPRI ID#
Ethylene glycol	107-21-1	1.86	114

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
107-21-1

DSL : All components of this product are on the Canadian Domestic
Substances List (DSL) or are exempt.

National Inventories:

Australia AICS : Listed

China IECS : Listed

Europe EINECS : Not determined

Japan ENCS : Not determined

Korea KECI : Not determined

Philippines PICCS : Listed

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material when used in combination with any other materials and/or in any particular process or processing conditions.