SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name:F4500R, F4500R-450, F4500R-2340Product Code:GacoEZSpray - POLYOL COMPONENT B

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Product Use: Spray Foam Insulation

Use this product in accordance with all local, regional, national and international regulations.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address: Gaco Western LLC

1245 Chapman Dr.

Waukesha, WI, 53186-5942

USA

Telephone Number: 800-331-0196 / **International**: 001-800-331-0196

Email:sds@gaco.comWebsite:www.gaco.com

1.4 EMERGENCY TELEPHONE NUMBER

For Chemical Emergency Spill, Leak, Fire, Exposure, or Incident Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1-703-527-3887 (collect calls accepted)

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL

Hazard class:

HAZARD CLASSIFICATION	CATEGORY
Skin Corrosion/Irritation	2
Eye Damage/Irritation	1
Toxic to Reproduction	2
STOT RE - Specific Toxic Organ Toxicity (Repeated Exposure)	3

2.2 LABEL ELEMENTS

Hazard pictogram: GHS07, GHS08



Classified to the 2012 OSHA Hazard Communication Standard 29 CFR 1920.1200.

SAFETY DATA SHEET

Signal word: WARNING

Hazard statement: Causes skin irritation

Causes serious eye damage May cause respiratory irritation

Suspected of damaging fertility or the unborn child

Prevention: Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Response: Specific treatment (see Section 8 on this label).

If on skin: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor if you feel unwell.

If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked

up.

Disposal: Dispose of contents and container in accordance with all local, regional,

national and international regulations.

2.3 ADDITIONAL INFORMATION

Main symptoms: Prolonged exposure may cause chronic effects. Suspected of damaging

fertility or the unborn child. May cause respiratory irritation. Causes skin irritation. May cause redness and pain. Causes severe eye damage. Symptoms

may include stinging, tearing, redness, swelling, and blurred vision.

Permanent eye damage including blindness could result.

Hazards not otherwise specified: None Known

33% of the mixture consists of ingredient(s) of unknown acute toxicity

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Material	CAS No.	Weight %*
Glycerol, propylene oxide, ethylene oxide polymer	13674-84-5	10-30%
Tertiary Amines (no cas)	N/A	1-5%
Dimethylaminoethoxyethanol	1704-62-7	1-5%
2-[[2-(dimethylamino)ethyl]methylamino]ethanol	2212-32-0	1-5%
Ethylene Glycol	107-21-1	0.1-1.0%
Tertiary amine catalyst	N/A	0.1-1.0%
1,4-Diazabicyclooctane	280-57-9	0.1-1.0%

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: FIRST-AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURES

General information: Ensure that medical personnel are aware of the materials(s) involved, and

take precautions to protect themselves.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for

breathing. Call a physician if symptoms develop or persist.

Skin contact: Wash with plenty of soap and water. Take off contaminated clothing and

wash before reuse. If skin irritation occurs, get medical advice/attention.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove

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

attention immediately.

Ingestion: Rinse mouth. Get medical attention if symptoms occur.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Prolonged exposure may cause chronic effects. Suspected of damaging fertility or the unborn child.

May cause respiratory irritation.

Causes skin irritation. May cause redness and pain.

Causes severe eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

Note to physicians: Treat symptomatically. Symptoms may be delayed.

Specific treatments: In case of accident or if you feel unwell, seek medical advice (show the label

or SDS where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

General hazards: No unusual fire or explosion hazard.

Suitable extinguishing media: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2) **Unsuitable extinguishing media:** Do not use water jet as an extinguisher as this will spread the fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Specific hazards: During fire, gases hazardous to health may be formed. **Products of combustion:** May include, and are not limited to: oxides of carbon.

5.3 Special protective equipment and precautions for fire-fighters (PPE)

Special protective equipment for fire-fighters:

Self-contained breathing apparatus and full protective clothing must be

worn in case of fire.

Special fire-fighting procedures: Keep upwind of fire. Move containers from fire area if you can do it

without risk.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

For personal protection, see Section 8 of this SDS.



6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

Methods for containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then

place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning-up: Stop the flow of material, if this is without risk. Dike far ahead of spill for later

disposal. Following product recovery, flush area with water. For waste

disposal, see Section 13 of the SDS.

Large spills: Stop the flow of material, if this is without risk. Dike the spilled material,

where this is possible. Absorb in vermiculite, dry sand or earth and place into

containers. Following product recovery, flush area with water.

Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly

to remove residual contamination.

Never return spills to original containers for re-use.

Environmental precautions: Avoid discharge into drains, water courses or onto the ground.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Precautions for Safe handling: Observe good industrial hygiene practices.

General hygiene advice: Ensure that medical personnel are aware of the materials(s) involved, and

take precautions to protect themselves.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Safe storage: Store away from incompatible materials.

Specific use: Spray Foam Insulation

Technical measures: No specific recommendations.

Incompatible materials: Acids

Safe packaging material: No specific recommendations.

Precautions: Use personal protective recommended in Section 8 of the SDS.

Safe handling advice: Observe good industrial hygiene practices.

Suitable storage conditions: Store away from incompatible materials.

Handling-technical measures: No specific recommendations. **Local and general ventilation:** Provide adequate ventilation.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Control parameters: Follow standard monitoring procedures.

Exposure limits: None

8.2 EXPOSURE CONTROLS

Engineering measures to reduce exposure:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to

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maintain airborne levels to an acceptable level.

8.3 INDIVIDUAL PROTECTIVE MEASURES



General: Eyewash fountain and emergency showers are recommended. Use personal

protective equipment as required.

Eye protection: Wear safety glasses with side shields (or goggles) and a face shield.

Hand protection: Wear appropriate chemical resistant gloves.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Skin and body protection: Wear suitable protective clothing.

Hygiene measures: Always observe good personal hygiene measures, such as washing after

handling the material and before eating, drinking, and/or smoking. Routinely

wash work clothing and protective equipment to remove contaminants.

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

Environmental exposure controls: Environmental manager must be informed of all major releases.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Slightly viscous liquid

Color:Milky WhiteForm:LiquidOdor:Amine-likeOdor Threshold:Not applicable

Physical State: Liquid pH (at 25°C): 11.9

Melting Point/Freezing Point: Not applicable **Initial Boiling Point and Boiling Range:** Not applicable Flash Point: >200°F/>93.3°C Not applicable **Evaporation Rate:** Flammability (solid, gaseous): Not Flammable Lower Flammability/Explosive Limit: Not applicable **Upper Flammability/Explosive Limit:** Not applicable Vapor Pressure (mm Hg @38°C): Not applicable Vapor Density: Not applicable

Density (lb/gal):9.08Relative Density/Specific Gravity:1.09Solubility in water/miscibility:Soluble

Partition coefficient: n-octanol/water:

Auto-ignition Temperature:

Decomposition Temperature:

Viscosity (at 25°C) g/L:

Oxidizing Properties:

Not applicable

1088 cPs

Not applicable

Not applicable

Not applicable

VOC: <50 g/L (<0.417 lb/gal)

Solvent content - Organic:Not applicableSolvent content - Water:Not applicableSolvent content - Solids:Not applicableOther information:Not applicable

Incompatibilities: Acids

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

The product is stable and non-reactive under normal conditions of use,

storage and transport.

10.2 CHEMICAL STABILITY

Chemical stability: Material is stable under normal conditions.

Materials to avoid: The product is stable and non-reactive under normal conditions of use,

storage and transport.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Hazardous reactions: No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID Contact with incompatible materials.

10.5 INCOMPATIBLE MATERIALS Acids

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous decomposition products: No hazardous decomposition products are known.

Hazardous polymerization: Does not occur.

Other information: Not applicable.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity: May cause respiratory irritation. Causes skin irritation. May cause redness

and pain. Causes severe eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage

including blindness could result.

Likely routes of exposure: Skin contact. Eye contact. Inhalation.

Eye: Causes severe eye damage. Symptoms may include stinging, tearing,

redness, swelling, and blurred vision. Permanent eye damage

including blindness could result.

Skin: Causes skin irritation. May cause redness and pain.

Ingestion: Not an expected route of exposure. Expected to be a low ingestion

hazard

Inhalation: May cause respiratory irritation.

LD50/LC50 values relevant to this classification:

Tertiary Amines

Oral rat LD50 1290 mg/kg bw Inhalation rat LC50 >2.63 mg/l 1 hr Dermal rabbit LD50 500-1000 mg/kg bw

Dimethylaminoethoxyethanol

Oral rat LD50 2337 mg/kg
Oral rat LD50 2150 mg/kg bw
Oral rat LD50 2558 mg/kg bw
Oral rat LD50 >3000 mg/kg bw
Oral rat LD50 >5660 mg/kg bw
Inhal rat LC50 >72 ppm air 4hr
Inhal rat LC50 >8.7 mg/m3 air 8hr
Derm rabbit LD50 1663-2033 mg/kg bw
Dermal rabbit LD50 1260 mg/kg bw
Dermal rabbit LD50 1334 mg/kg

Calculated overall chemical acute toxicity values for this formulation:

Calculated overall Chemical Acute Toxicity Values				
LC50 (inhalation) LD50 (oral) LD50 (de				
>5 mg/kg (dust and mist)	>2000 mg/kg	>2000 mg/kg		

11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

Skin corrosion/irritation: Causes skin irritation. May cause redness and pain.

Serious eye damage/irritation: Causes severe eye damage. Symptoms may include stinging, tearing, redness,

swelling, and blurred vision. Permanent eye damage including blindness

could result.

Respiratory sensitization: Based on available data, this product is not expected to cause respiratory

sensitization.

Skin sensitization: Based on available data, this product is not expected to cause skin

sensitization.

Symptoms and target organs: Prolonged exposure may cause chronic effects. Suspected of damaging

fertility or the unborn child. May cause respiratory irritation. Causes skin irritation. May cause redness and pain. Causes severe eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred

vision. Permanent eye damage including blindness could result.

Chronic health effects: Prolonged exposure may cause chronic effects. Suspected of damaging

fertility or the unborn child.

Carcinogenicity: This product is not classified as a carcinogen.

Mutagenicity: No data available to indicate product or any components present at greater

than 0.1% are mutagenic or genotoxic.

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity (STOT):

Single Exposure: May cause respiratory irritation.

Repeated Exposure: Not classified as an STOT - Repeated Exposure.

Aspiration Toxicity: Based on available data, this product is not expected to cause aspiration

toxicity.

Other Information: Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

Ecotoxicity: The product is not classified as environmentally hazardous. However, this

does not exclude the possibility that large or frequent spills can have a

harmful or damaging effect on the environment.

Acute aquatic toxicity: The product is not classified as acutely environmentally hazardous. However,

this does not exclude the possibility that large or frequent spills can have a

harmful or damaging effect on the environment.

Chronic toxicity: The product is not classified as having a chronic environmental hazard.

However, this does not exclude the possibility that large or frequent spills can

have a harmful or damaging effect on the environment.

Environmental effects: The product is not classified as environmentally hazardous. However, this

does not exclude the possibility that large or frequent spills can have a

harmful or damaging effect on the environment.

12.2 PERSISTENCE AND DEGRADABILITY



Persistence/biodegradability: The product contains substances which are not expected to be readily

biodegradable.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

12.4 MOBILITY

Mobility:No data available.Mobility in soil:No data available.Mobility in non-soil:No data available.

12.5 OTHER ADVERSE EFFECTS

Ozone layer: No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal method: This material must be disposed of in accordance with all local, state,

provincial, and federal regulations.

Contaminated packaging: Since emptied containers may retain product residue, follow label warnings

even after container is emptied. Dispose of contents and container in accordance with all local, regional, national and international regulations.

EU codes: The Waste code should be assigned in discussion between the user, the

producer and the waste disposal company.

Residual waste: Dispose of in accordance with local regulations. Empty containers or liners

may retain some product residues. This material and its container must be

disposed of in a safe manner (see: Disposal instructions).

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal

site. Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Waste codes: The Waste code should be assigned in discussion between the user, the

producer and the waste disposal company.

Other disposal recommendations: None

SECTION 14: TRANSPORT INFORMATION

DOT Non-Bulk

Not classified as Dangerous Goods for Transport

DOT Bulk

Not classified as Dangerous Goods for Transport

IMDG

Not classified as Dangerous Goods for Transport

ICAO/IATA

Not classified as Dangerous Goods for Transport

Reportable quantity: Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

US Federal Regulations:

U.S. OSHA (Occupational Safety and Health Administration) Specifically Regulated Substances (29 CFR 1910.1001-1050)

No components of this product are present at concentration greater than or equal to 0.1% and are identified as a carcinogen or potential carcinogen by OSHA.

SARA/CERCLA reporting requirements:

The following components of this product are found at concentrations greater than or equal to 0.1% and are subject to SARA/CERCLA reporting requirements.

	SARA 302	SARA 304		SARA 313		CAA 112(r)
Material	(EHSs) TPQ	EHSs RQ	CERCLA RQ	listed	RCRA CODE	TQ
Ethylene Glycol	Not listed	Not listed	5,000	313	Not listed	Not listed

State Right-to-Know Regulations

The following components of this product are found at concentrations greater than or equal to 0.1%, subject to state Right-to-Know reporting requirements; or are found at any concentration and are listed under California Proposition 65.

Material	California Proposition 65	Massachus etts Right- to-Know	Minnesota Employee Right-to- Know	New Jersey Community Environme ntal Hazard Right-to- Know	New Jersey Right-to- Know Substance	Pennsylvan ia Right-to- Know	Rhode Island Right-to- Know
Tertiary Amines (no cas)	Not listed	Lissted	Not listed	Not listed	Not listed	Not listed	Not listed
Oxydipropanol	Not listed	Not listed	Not listed	Not listed	Not listed	Listed	Not listed
Ethylene Glycol	Dev	Listed	Listed	Not listed	Listed	Listed	Listed

California:

WARNING: This product can expose you to Ethylene Glycol, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

Global Inventories:

Notification status:				
US - TSCA	All substances are listed			
Canada -DSL	All substances are listed			
Canada - NDSL	No substances are listed			
EU - EINECS	Not all substances are listed			
EU - ELINCS	No substances are listed			
EU - NLP	At least 1 substance is listed			
Australia – AICS	All substances are listed			
China - EICSC	All substances are listed			
Japan - ENCS	All substances are listed			
Korea - KECI	All substances are listed			
Taiwan - NECI	All substances are listed			
New Zealand - NZloC	All substances are listed			
Philippine - PICCS	All substances are listed			

EU - REACH Status:

A registration number is not available for substances in this mixture as the substances are exempted from registration, the annual tonnage does not require a registration or the registration is envisioned for a later registration deadline.

CANADA – WHMIS (Workplace Hazardous Materials Information System) Classification:

D1B, D2A, D2B, E



MEXICO:

Hazard Classification: 3-1-0

Carcinogen Status: No data available.

SECTION 16: OTHER INFORMATION

HMIS (Hazardous Materials Identification System) rating:

Health:	3*
Flammability:	1
Physical:	0

NFPA 704 (National Fire Protection Association) rating:

Health	3
Fire	1
Reactivity	0

Legend:

DOT	US Department of Transportation
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods

ACGIH American Conference of Governmental Industrial Hygienists

NTP National Toxicology Program

IARC International Agency for Research on Cancer

PPE Personal Protective Equipment

RCRA Resource Conservation and Recovery Act

CAA Clean Air Act

SARA Superfund Amendments and Reauthorization Act
EPCRA Emergency Planning and Community Right-to-Know Act
WHMIS Workplace Hazardous Materials Information System

EU European Union

REACH Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals

CERCLA Comprehensive Environmental Response, Compensation and Liability Act

TSCA US Toxic Substances Control Act (TSCA)
DSL Canada Domestic Substance List (DSL)
NDSL Canada Non-Domestic Substance List (NDSL)





EINECS European Inventory of Existing Commercial Chemical Substances (EINECS)

ELINCS European List of Notified Chemical Substances (ELINCS)

NLP European list of No-longer Polymers (NLP)

AICS Australian Inventory of Chemical Substances (AICS)

EICSC China Existing Chemical Inventory - IECSC

ENCS Japanese Existing and New Chemical Substances Inventory(ENCS)

KECI Korea Existing Chemicals Inventory(KECI)

NECI Taiwan National Existing Chemical Inventory (NECI)
NZIOC New Zealand Inventory of Chemicals (NZIOC)

PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)

HMIS Hazardous Materials Identification System
NFPA National Fire Protection Association (NFPA)

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recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own

particular use.

Prepared by: Gaco Western LLC

End of Safety Data Sheet