SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier
Product form: Mixture
Product name: Ecopol Gelbreak-EL2X
Synonyms: Liquid Enzyme Breaker

Intended Use Of The Product
Use of the substance/mixture: Breaker.

Name, Address, And Telephone Of The Responsible Party
Economy® Polymers & Chemicals
435 E. Anderson Road
77047 Houston, TX
T 713-723-8416, 1-800-231-2006
www.economypolymers.com

Emergency Telephone Number
Emergency number: CHEMTREC 1-800-424-9300 (US); 703-527-3887 (International, collect calls are accepted)

SECTION 2: HAZARDS IDENTIFICATION

Classification Of The Substance Or Mixture
GHS-US classification
Resp. Sens. 1 H334

Label Elements
GHS-US labeling
Hazard pictograms (GHS-US):

Signal word (GHS-US): Danger
Hazard statements (GHS-US): H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
Precautionary statements (GHS-US): P261 - Avoid breathing dust, mist, spray
P284 - [In case of inadequate ventilation] wear respiratory protection
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards: Not available

Unknown acute toxicity (GHS US): Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances
Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>% (w/w)</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemicellulase</td>
<td>(CAS No.) 9025-56-3</td>
<td>0.1 - 1</td>
<td>Resp. Sens. 1, H334</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16
SECTION 4: FIRST AID MEASURES

Description Of First Aid Measures

**General**: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation**: When symptoms occur: go into open air and ventilate suspected area. If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Obtain medical attention.

**Skin Contact**: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation persists.

**Eye Contact**: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

**Ingestion**: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell.

**Most Important Symptoms And Effects Both Acute and Delayed**

**General**: May cause an allergic reaction in sensitive individuals.

**Inhalation**: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation of vapors may cause respiratory irritation.

**Skin Contact**: Prolonged contact with large amounts of vapors may cause mechanical irritation.

**Eye Contact**: Repeated or prolonged contact will cause irritation.

**Ingestion**: Gastrointestinal irritation. Abdominal pain.

**Chronic symptoms**: Not available.

**Indication Of Any Immediate Medical Attention And Special Treatment Needed**

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIREFIGHTING MEASURES

**Extinguishing Media**

**Suitable extinguishing media**: Water spray, dry chemical, foam, carbon dioxide. Use extinguishing media appropriate for surrounding fire.

**Unsuitable extinguishing media**: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

**Special Hazards Arising From The Substance Or Mixture**

**Fire hazard**: Not considered flammable but may burn at high temperatures.

**Explosion hazard**: Product is not explosive.

**Reactivity**: Not available.

**Advice For Firefighters**

**Precautionary measures fire**: Not available.

**Firefighting instructions**: Exercise caution when fighting any chemical fire.

**Protection during firefighting**: Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products**: Carbon oxides (CO, CO2). Sodium oxides.

**Reference To Other Sections**

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment And Emergency Procedures**

**General measures**: Avoid breathing (vapors, mist spray). Avoid contact with skin and eyes.

**For Non-Emergency Personnel**

**Protective equipment**: Use appropriate personal protection equipment (PPE).

**Emergency procedures**: Evacuate unnecessary personnel.

**For Emergency Personnel**

**Protective equipment**: Equip cleanup crew with proper protection.

**Emergency procedures**: Ventilate area.
**Environmental Precautions**
Prevent entry to sewers and public waters.

**Methods And Material For Containment And Cleaning Up**
Methods for cleaning up: Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container; Do not take up in combustible material such as: saw dust or cellulosic material

**Reference To Other Sections**
See heading 8, exposure controls and personal protection.

**SECTION 7: HANDLING AND STORAGE**

**Precautions For Safe Handling**
**Hygiene measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product

**Conditions For Safe Storage, Including Any Incompatibilities**
**Storage conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

**Incompatible materials:** Strong acids, strong bases, strong oxidizers, organic materials.

**Storage temperature:** 4.44°C – 32.22 °C (40-90°F)

**Specific End Use(s)**
Breaker.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control Parameters**
No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

**Exposure Controls**
**Appropriate engineering controls:** Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

**Personal protective equipment:** Insufficient ventilation: wear respiratory protection. Gloves. Protective clothing. Safety glasses.

**Materials for protective clothing:** Chemically resistant materials and fabrics.
**Hand protection:** Wear chemically resistant protective gloves.
**Eye protection:** Chemical goggles or safety glasses.
**Skin and body protection:** Not available
**Respiratory protection:** Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapors are expected to exceed exposure limits.

**Other information:** When using, do not eat, drink or smoke.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Information On Basic Physical And Chemical Properties**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Transparent, clear to orange</td>
</tr>
<tr>
<td>Odour</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>6 - 8</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting point</td>
<td>≤0 °C (≤32°F)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Ecopol Gelbreak-EL2X
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

- Boiling point: Not available
- Flash point: > 100 °C (≥212°F)
- Auto-ignition temperature: Not available
- Decomposition Temperature: Not available
- Flammability (solid, gas): Not available
- Lower flammable limit: Not available
- Upper flammable limit: Not available
- Vapour pressure: Not available
- Relative vapour density at 20 °C: Not available
- Relative density: Not available
- Specific gravity density: 1.11-1.14
- Solubility: Water: Miscible
- Log Pow: Not available
- Log Kow: Not available
- Viscosity, kinematic: Not available
- Viscosity, dynamic: Not available
- Explosion data - sensitivity to mechanical impact: Not available
- Explosion data - sensitivity to static discharge: Not available

SECTION 10: STABILITY AND REACTIVITY
Reactivity: Not available
Chemical Stability: Degrades with time and heat, stable if maintained at storage temperature (40-60°F).
Possibility Of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions To Avoid: Direct sunlight. Extremely high or low temperatures. Incompatible materials.
Hazardous Decomposition Products: Carbon oxides (CO, CO2). Oxides of sodium.

SECTION 11: TOXICOLOGICAL INFORMATION
Information On Toxicological Effects - Product
Acute toxicity: Not classified
LD50 and LC50 Data: Not available
Skin corrosion/irritation: Not classified pH: 6 - 8
Serious eye damage/irritation: Not classified pH: 6 - 8
Respiratory or skin sensitisation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Germ cell mutagenicity: Not classified
Teratogenicity: Not available
Carcinogenicity: Not classified
Specific target organ toxicity (repeated exposure): Not classified
Reproductive toxicity: Not classified
Specific target organ toxicity (single exposure): Not classified
Aspiration hazard: Not classified
Symptoms/injuries after inhalation: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation of dust may cause respiratory irritation.
Symptoms/injuries after skin contact: Prolonged contact with large amounts vapor may cause irritation.
Symptoms/injuries after eye contact: Repeated or prolonged contact will cause irritation.
Symptoms/injuries after ingestion: Gastrointestinal irritation. Abdominal pain.

Information On Toxicological Effects - Ingredient(s)
LD50 and LC50 Data
Ecopol Gelbreak-EL2X

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not available

Persistence And Degradability

<table>
<thead>
<tr>
<th>Ecopol Gelbreak-EL2X</th>
<th></th>
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<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

Bioaccumulative Potential

<table>
<thead>
<tr>
<th>Ecopol Gelbreak-EL2X</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

Mobility In Soil Not available

Other Adverse Effects

Other information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

In accordance with ICAO/IATA/DOT/TDG

UN Number Not regulated for transport

UN Proper Shipping Name Not regulated for transport

Additional information Not regulated for transport

Overland transport Not regulated for transport

Transport by sea Not regulated for transport

Air transport Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal regulations

Hemicellulase (9025-56-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State regulations

This product and its components are not present on any US State regulatory lists.

Canadian regulations

Ecopol Gelbreak-EL2X

WHMIS Classification Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

Hemicellulase (9025-56-3)

WHMIS Classification Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION

Indication of changes : Revision date: 08/19/2013

Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.
Resp. Sens. 1 | Respiratory sensitisation Category 1
H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled

Party Responsible For The Preparation Of This Document:
Economy Polymers & Chemicals
435 E. Anderson Road Houston, TX 77047
713-723-8416; 1-800-231-2066

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS