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

Product Identifier
Product form: Mixture
Product name: Econo-Max
Synonyms: Clay Control Agent

Intended Use Of The Product
Use of the substance/mixture: Temporary Clay Stabilizer

Name, Address, And Telephone Of The Responsible Party
Economy® Polymers & Chemicals
435 E. Anderson Road
77047 Houston, TX
T 713-723-8416; 1-800-231-2066
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
Not classified

Label Elements
GHS-US labeling No labeling applicable
Other Hazards Not available
Unknown acute toxicity (GHS US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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>Choline chloride</td>
<td>(CAS No. 67-48-1)</td>
<td>65-75</td>
<td>Not classified</td>
</tr>
<tr>
<td>Water</td>
<td>(CAS No. 7732-18-5)</td>
<td>25-35</td>
<td>Not classified</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. Obtain medical attention if breathing difficulty persists.

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 pain, blinking or redness persist.

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

Inhalation: Prolonged exposure to liquid may cause a mild irritation.

Skin Contact: Causes mild skin irritation.
Econo-Max
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**Eye Contact:** May cause slight irritation to eyes.

**Ingestion:** May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

**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, foam, carbon dioxide, dry chemical. Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: Not available.

**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:** Stable at ambient temperature and under normal conditions of use.

**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.


Other information: Do not allow run-off from fire fighting to enter drains or water courses.

**Reference To Other Sections**
Refer to section 9 for flammability properties.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

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**

**For containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Absorb and/or contain spill with inert material, then place in suitable container.

**Methods for cleaning up:** Clear up spills immediately and dispose of waste safely.

**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.

**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 products:** Strong acids. Strong bases. Strong oxidizers

**Maximum storage period:** 1 year

**Specific End Use(s)**
Temporary Clay Stabilizer
No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

**Exposure Controls**

**Appropriate engineering controls:** Provide adequate general and local exhaust ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

**Personal protective equipment:** Protective clothing, Protective goggles, Gloves

**Materials for protective clothing:** Not available

**Hand protection:** Wear chemically resistant protective gloves.

**Eye protection:** Chemical goggles or safety glasses.

**Skin and body protection:** Wear suitable protective clothing.

**Respiratory protection:** Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist 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>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Transparent</td>
</tr>
<tr>
<td>Odour</td>
<td>Smell of fish</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>7 - 10</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting point</td>
<td>&lt; -40 °C (-40°F)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 100 °C (212°F)</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower flammable limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper flammable limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific gravity density</td>
<td>0.107-1.10</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Log Pow</td>
<td>Not available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosion data - sensitivity to mechanical impact</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosion data - sensitivity to static discharge</td>
<td>Not available</td>
</tr>
</tbody>
</table>
SECTION 10: STABILITY AND REACTIVITY

Reactivity  Stable at ambient temperature and under normal conditions of use.
Chemical Stability  Stable under normal conditions.
Possibility Of Hazardous Reactions  Hazardous polymerization will not occur.
Conditions To Avoid  Direct sunlight. Extremely high or low temperatures.
Hazardous Decomposition Products  Carbon oxides (CO, CO2). Nitrogen oxides.

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: 7 - 10
Serious eye damage/irritation  Not classified pH: 7 - 10
Respiratory or skin sensitisation  Not classified
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  Prolonged exposure to liquid may cause a mild irritation.
Symptoms/injuries after skin contact  Causes mild skin irritation.
Symptoms/injuries after eye contact  May cause slight irritation to eyes.
Symptoms/injuries after ingestion  May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

<table>
<thead>
<tr>
<th>Choline chloride (67-48-1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>3400 mg/kg</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

<table>
<thead>
<tr>
<th>Choline chloride (67-48-1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>&gt; 10000 mg/l (Exposure time: 96 h - Species: Leuciscus idus [static])</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 500 mg/l (Exposure time: 48 h - Species: Daphnia magna Straus)</td>
</tr>
<tr>
<td>EC50 other aquatic organisms 1</td>
<td>&gt; 500 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>&gt; 320 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])</td>
</tr>
</tbody>
</table>

Persistence And Degradability

<table>
<thead>
<tr>
<th>Econo-Max</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

Bioaccumulative Potential

<table>
<thead>
<tr>
<th>Econo-Max</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

Choline chloride (67-48-1)

<table>
<thead>
<tr>
<th>Log Pow</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>-3.77 (at 25 °C)</td>
<td></td>
</tr>
</tbody>
</table>

Mobility In Soil  Not available
Other Adverse Effects
Other information: Avoid release to the environment.
**Econo-Max**

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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

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**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

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**SECTION 15: REGULATORY INFORMATION**

**US Federal regulations**

Choline chloride (67-48-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**US State regulations**

Choline chloride (67-48-1)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

**Canadian regulations**

Econo-Max

WHMIS Classification: Uncontrolled product according to WHMIS classification criteria

Choline chloride (67-48-1)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification: Uncontrolled product according to WHMIS classification criteria

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification: Uncontrolled product according to WHMIS classification criteria

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.

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**SECTION 16: OTHER INFORMATION**

Revision date: 08/23/2013

Data Sources: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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