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

Product Identifier

Product form: Mixture

Product name: Ecopol-CL17

Synonyms: Zirconium Crosslinker

Intended Use Of The Product

Use of the substance/mixture: Crosslinker. For professional use only.

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

Skin Corr. 1B H314
Eye Dam. 1 H318

Label Elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS05

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

Precautionary statements (GHS-US) : P260 - Do not breathe vapors, mist, spray
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling
P280 - Wear gloves, protective clothing, eye protection, face protection, respiratory protection
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor.
P321 - Specific treatment (see section 4).
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
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

Mixture

Name	Product Identifier	% (w/w)	GHS-US classification
Zirconium, dichlorooxo-, octahydrate	(CAS No.) 13520-92-8	15 - 25	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318
Propanoic acid, 2-hydroxy-, monosodium salt	(CAS No.) 72-17-3	15 - 25	Skin Irrit. 2, H315 Eye Irrit. 2A, H319

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. Remove to fresh air and keep at rest in a position comfortable for breathing.Immediately call a POISON CENTER or doctor/physician.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms And Effects Both Acute and Delayed

General: Causes severe skin burns and eye damage. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Inhalation: Inhalation of fumes or vapours may cause respiratory irritation.

Skin Contact: Causes severe irritation which will progress to chemical burns.

Eye Contact: Causes serious eye damage. Contact may cause immediate severe irritation progressing quickly to chemical burns.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion may cause nausea, vomiting and diarrhea.

Chronic symptoms: Not available.

Indication Of Any Immediate Medical Attention And Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable extinguishing media: Dry chemical, CO2, water spray, foam, or fog.

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

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: Thermal decomposition generates :Corrosive vapours.

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:Not available

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 all eye and skin contact and do not breathe vapour and mist.

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. Cautiously neutralize spilled liquid. Absorb and/or contain spill with inert material, then place in suitable container.

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. Wash contaminated clothing before reuse.

Conditions For Safe Storage, Including Any Incompatibilities

Technical measures: Comply with applicable regulations.

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

Storage area: Store locked up

Specific End Use(s)

Crosslinker. For professional use only.

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:Protective clothing. Protective goggles. Face shield. Insufficient ventilation: wear respiratory protection. Gloves.

Materials for protective clothing: Chemically resistant materials and fabrics. Corrosionproof clothing.

Hand protection: Wear chemically resistant protective gloves.

Eye protection: Chemical goggles or safety glasses.Chemical goggles or face shield.

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

Physical state	:	Liquid
Appearance	:	Transparent, green.
Odour	:	Not available
Odour threshold	:	Not available
pH	:	4.5 - 7
Relative evaporation rate (butylacetate=1)	:	Not available
Melting point	:	-10 °C (14°F)
Freezing point	:	Not available
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	:	1.2
Solubility	:	Not available
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 Thermal decomposition generates :Corrosive vapours.

Chemical Stability Stable under normal temperture and pressure.

Possibility Of Hazardous Reactions Hazardous polymerization will not occur.

Conditions To Avoid Direct sunlight. Extremely high or low temperatures.

Incompatible Materials Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products Carbon oxides (CO, CO2).Thermal decomposition generates :Corrosive vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

Information On Toxicological Effects - Product

Acute toxicity : Not classified

LD50 and LC50 Data Not available

Skin corrosion/irritation: Causes severe skin burns and eye damage. **pH: 4.5 - 7**

Serious eye damage/irritation: Causes serious eye damage. **pH: 4.5 - 7**

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: Inhalation of fumes or vapours may cause respiratory irritation.
Symptoms/injuries after skin contact: Causes severe irritation which will progress to chemical burns.
Symptoms/injuries after eye contact: Causes serious eye damage. Contact may cause immediate severe irritation progressing quickly to chemical burns.
Symptoms/injuries after ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion may cause nausea, vomiting and diarrhea.
Information On Toxicological Effects - Ingredient(s)
LD50 and LC50 Data

Zirconium, dichlorooxo-, octahydrate (13520-92-8)	
LD50 oral rat	990 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Persistence And Degradability

Ecopol-CL17	
Persistence and degradability	Not established.

Bioaccumulative Potential

Ecopol-CL17	
Bioaccumulative potential	Not established.

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
UN-No.(DOT): 1760
DOT NA no.: UN1760

UN Proper Shipping Name

DOT Proper Shipping Name : Corrosive liquids, n.o.s. (Contains Zirconium, dichlorooxo-, octahydrate)
Department of Transportation (DOT) Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard labels (DOT) : 8 - Corrosive substances

DOT Symbols : G - Identifies PSN requiring a technical name
Packing group (DOT) : II - Medium Danger
DOT Special Provisions (49 CFR 172.102) : B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406

cargo tanks are not authorized.
IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T11 - 6 178.274(d)(2) Normal..... 178.275(d)(3)
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following formula: Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 154
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

Additional information

Emergency Response Guide (ERG) Number : 154

Overland transport Not available

Transport by sea

DOT Vessel Stowage Location : B - (i) The material may be stowed ''on deck'' or ''under deck'' on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ''On deck only'' on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

DOT Vessel Stowage Other : 40 - Stow ''clear of living quarters''

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L

SECTION 15: REGULATORY INFORMATION

US Federal regulations

Propanoic acid, 2-hydroxy-, monosodium salt (72-17-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State regulations

Neither this product nor its chemical components appear on any US state lists.

Canadian regulations

Ecopol-CL17	
WHMIS Classification	Class E - Corrosive Material

Zirconium, dichlorooxo-, octahydrate (13520-92-8)	
WHMIS Classification	Class E - Corrosive Material Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects

Propanoic acid, 2-hydroxy-, monosodium salt (72-17-3)	
Listed on the Canadian DSL (Domestic Sustances List) inventory.	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Water (7732-18-5)	
Listed on the Canadian DSL (Domestic Sustances 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.

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.

GHS Full Text Phrases:

Eye Dam. 1	Serious eye damage/eye irritation Category 1
Skin Corr. 1B	skin corrosion/irritation Category 1B
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

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