

# SAFETY DATA SHEET

## CL-37 CROSSLINKER

Revision Date: 28-Apr-2014

Revision Number: 10

### 1. Product and Company Identification

**Product Name****Product Trade Name:** CL-37 CROSSLINKER**Other Names****Synonyms:** None**Product Code:** HM003929**Recommended Use****Recommended Use** Crosslinker**Uses Advised Against** No information available**Company Name, Address and Contact Details****Manufacturer/Supplier** Halliburton New Zealand  
1 Paraite Rd,  
Bell Block, New Plymouth  
New Zealand Registration No.: 824207**E-Mail address:** fdunexchem@halliburton.com**Emergency Telephone Number** +64-6-7559274**New Zealand National Poisons  
Centre** 0800 764 766 (24 hours)

### 2. Hazard(s) Identification

**Statement of Hazardous Nature**Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulation 2001;  
Classified as dangerous good according to NZS 5433:2012, UN, IMDG or IATA**Classification**

3.1C Flammable Liquids - Medium hazard

6.1E (Oral) Acutely Toxic Substances

6.4A Irritating to the eye

**Hazard and Precautionary Statements****Hazard Pictograms**

**Signal Word**

Warning

**Hazard Statements**

H226 - Flammable liquid and vapor  
 H303 - May be harmful if swallowed  
 H319 - Causes serious eye irritation

**Precautionary Statements****Prevention**

P101 - If medical advice is needed, have product container or label at hand  
 P102 - Keep out of reach of children  
 P103 - Read label before use  
 P104 - Read Safety Data Sheet before use  
 P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 P233 - Keep container tightly closed  
 P240 - Ground/Bond container and receiving equipment  
 P241 - Use explosion-proof electrical/ventilating/lighting/equipment  
 P242 - Use only non-sparking tools  
 P243 - Take precautionary measures against static discharge  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P280 - Wear eye protection/face protection

**Response**

P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
 P331 - Do NOT induce vomiting  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P337 + P313 - If eye irritation persists: Get medical advice/attention  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
 P370 + P378 - In case of fire: Use water spray for extinction

**Storage**

P403 + P235 - Store in a well-ventilated place. Keep cool

**Disposal**

P501 - Dispose of contents/container to an approved incineration plant

**Contains**

Substances	CAS Number	Substance HSNO Classification
Triethanolamine zirconate	101033-44-7	6.4A
Propanol	71-23-8	3.1B 6.1D (Oral) 6.1E (Dermal) 6.4A 9.3C
Glycerine	56-81-5	Not applicable

**2.3 Other Hazards**

None known

### 3. Composition and Information on Ingredients

Substances	CAS Number	PERCENT (w/w)
Triethanolamine zirconate	101033-44-7	60 - 100%
Propanol	71-23-8	10 - 30%
Glycerine	56-81-5	10 - 30%

### 4. First-Aid Measures

**Requirements for First Aid or Medical Care****Inhalation**

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

**Eyes**

In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

<b>Skin</b>	In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.
<b>Ingestion</b>	Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

**Workplace Facilities Required**

None

**Relation to Health Effect****Most Important Symptoms/Effects**

May cause eye irritation

**Medical Attention and Special Treatment****Notes to Physician**

Treat symptomatically

## 5. Fire-fighting measures

**Type of Hazard****Flammability Hazard**

Flammable Liquid

**5.1 Extinguishing media****Suitable Extinguishing Media**

Water fog, carbon dioxide, foam, dry chemical.

**Extinguishing media which must not be used for safety reasons**

None known.

**HAZCHEM Code**

Hazchem Code: 2[S]E

**Special Protective Equipment and Precautions for Fire Fighters****Special Protective Equipment for Fire-Fighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

**Special Exposure Hazards**

May be ignited by heat, sparks or flames. Fight fire from a safe distance and from a protected location. Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. Decomposition in fire may produce toxic gases.

## 6. Spillage, Accidental Release Measures

**6.1 Personal precautions, protective equipment and emergency procedures**

Use appropriate protective equipment.

See Section 8 for additional information

**6.2 Environmental precautions**

Prevent from entering sewers, waterways, or low areas.

**6.3 Methods and material for containment and cleaning up**

Isolate spill and stop leak where safe. Remove ignition sources and work with non-sparking tools. Contain spill with sand or other inert materials. Scoop up and remove.

**6.4 Reference to other sections**

See Section 8 and 13 for additional information.

## 7. Handling and Storage

**7.1 Precautions for Safe Handling****Handling Precautions**

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Wash hands after use. Launder contaminated clothing before reuse. Ground and bond containers when transferring from one container to another.

**Handling Practices**

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Approved Handlers**

This product does NOT require an approved handler.

**7.2 Conditions for safe storage, including any incompatibilities**

Store away from oxidizers. Store away from acids. Keep from heat, sparks, and open flames. Store in a cool well ventilated area. Keep container closed when not in use. Product has a shelf life of 12 months.

**Product is incompatible with:**

Class 1 (explosives)  
Class 2 (flammable gases, aerosols)  
Class 3.2 (liquid desensitised explosives)  
Class 4 (readily combustible, self-reactive, solid desensitised explosives, spontaneously combustible, dangerous when wet)

**Store Site Requirements**

No special controls required

**Packaging**

No special packaging required

## 8. Exposure Controls and Personal Protection

**Workplace Exposure Standards****Exposure Limits**

Substances	CAS Number	New Zealand WES	ACGIH TLV-TWA
Triethanolamine zirconate	101033-44-7	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Propanol	71-23-8	STEL: 250 ppm STEL: 614 mg/m <sup>3</sup> TWA: 200 ppm TWA: 492 mg/m <sup>3</sup>	TWA: 100 ppm
Glycerine	56-81-5	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>

**Engineering Controls****Engineering Controls**

Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

**Personal Protective Equipment (PPE)****Respiratory Protection**

Organic vapor respirator.

**Hand Protection**

Impervious rubber gloves.

**Skin Protection**

Rubber apron.

**Eye Protection**

Chemical goggles; also wear a face shield if splashing hazard exists.

**Other Precautions**

Eyewash fountains and safety showers must be easily accessible.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

## 9. Physical and Chemical Properties

**9.1 Information on basic physical and chemical properties**

**Physical State:** Liquid

**Color:** Yellow

**Odor:** Alcohol

**Odor Threshold:** No information available

**Property****Values**

Remarks/ - Method

**pH:**

7-9

**Freezing Point/Range**

No data available

**Melting Point/Range**

No data available

**Boiling Point/Range**

98 °C

**Flash Point**

28 °C PMCC

**Evaporation rate**

No data available

**Vapor Pressure**

No data available

**Vapor Density**

No data available

Specific Gravity	1.091
Water Solubility	Soluble in water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

**9.2 Other information**

VOC Content (%)	No data available
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## 10. Stability and Reactivity

**10.2 Chemical Stability**

Stable

**10.4 Conditions to Avoid**

Keep away from heat, sparks and flame.

**10.5 Incompatible Materials**

Strong oxidizers. Strong acids.

**Product is incompatible with:**

Class 1 (explosives)  
 Class 2 (flammable gases, aerosols)  
 Class 3.2 (liquid desensitised explosives)  
 Class 4 (readily combustible, self-reactive, solid desensitised explosives, spontaneously combustible, dangerous when wet)

**10.6 Hazardous Decomposition Products**

Olefins. Oxides of nitrogen. Other organic materials. Carbon monoxide and carbon dioxide.

**Hazardous Reactions****Hazardous Polymerization:** Will Not Occur

## 11. Toxicological Information

**Health Effect from Likely Routes of Exposure****Acute Toxicity**

<b>Inhalation</b>	May cause respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.
<b>Eye Contact</b>	May cause moderate eye irritation.
<b>Skin Contact</b>	May cause skin irritation. May be absorbed through the skin and produce effects similar to those caused by inhalation and/or ingestion. May cause an allergic skin reaction.
<b>Ingestion</b>	May be harmful if swallowed. May cause abdominal pain, vomiting, nausea, and diarrhea. May cause central nervous system depression including headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue blurred vision, slurred speech, giddiness, tremors and convulsions.

**Chronic Effects/Carcinogenicity** Repeated overexposure may cause liver and kidney effects.**Toxicity Data****Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Triethanolamine zirconate	101033-44-7	No data available	No data available	No data available

Propanol	71-23-8	1870 mg/kg ( Rat )	No data available	13548 ppm ( Rat ) 4 h
Glycerine	56-81-5	12600 mg/kg ( Rat )	21900 mg/kg ( Rat )	No data available

## 12. Ecological Information

### 12.1 Toxicity

#### Ecotoxicity Effects

#### Product Ecotoxicity Data

No data available

#### Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Triethanolamine zirconate	101033-44-7	No information available	No information available	No information available	No information available
Propanol	71-23-8	No information available	No information available	No information available	No information available
Glycerine	56-81-5	No information available	LC50: 51 - 57 mL/L (Oncorhynchus mykiss)	No information available	EC50: >500 mg/L (Daphnia magna); TLM48: > 2000 mg/l (Acartia tonsa)

### 12.2 Persistence and degradability

No information available

Substances	Persistence and Degradability
Triethanolamine zirconate	No information available
Propanol	Readily biodegradable
Glycerine	Readily biodegradable

### 12.3 Bioaccumulative potential

No information available

### 12.4 Mobility in soil

No information available

### Ecotoxicity Hazard Statements

None known

### 12.6 Other adverse effects

#### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

## 13. Disposal Considerations

### 13.1 Waste treatment methods

#### Disposal Method

Disposal should be made in accordance with federal, state, and local regulations. Incineration recommended in approved incinerator according to federal, state, and local regulations. Substance should NOT be deposited into a sewage facility.

#### Contaminated Packaging

Follow all applicable national or local regulations. Contaminated packaging may be disposed of by: rendering packaging incapable of containing any substance, or treating packaging to remove residual contents, or treating packaging to make sure the residual contents are no longer hazardous, or by disposing of packaging into commercial waste collection.

## 14. Transport Information

### IMDG/IMO

UN Number:	UN1274
UN Proper Shipping Name:	n-Propanol Solution
Transport Hazard Class(es):	3
Packing Group:	III
Environmental Hazards:	Not applicable

**EMS:** EmS F-E, S-D

**NZ 5433.1999**

**UN Number:** UN1274  
**UN Proper Shipping Name:** n-Propanol Solution  
**Transport Hazard Class(es):** 3  
**Packing Group:** III

**IATA/ICAO**

**UN Number:** UN1274  
**UN Proper Shipping Name:** n-Propanol Solution  
**Transport Hazard Class(es):** 3  
**Packing Group:** III

**Special Precautions for User** None

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable

**15. Regulatory Information**

**New Zealand Inventory of Chemicals** This product does not comply with NZIOC

**HSNO Approval Number** HSR002495

**Group Name** Additives, Process Chemicals and Raw Materials (Flammable HSR002495)

**HSNO Controls** Refer to the NZ EPA website for more information: <http://www.epa.govt.nz>

**Approved Handlers** Not Applicable

**Poisons Schedule:** None Allocated

**16. Other information, including date of preparation or last revision**

**The following sections have been revised since the last issue of this SDS**

Not applicable

**Additional information** For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Compliance at 1-580-251-4335.

**Key literature references and sources for data**

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)  
NZ CCID

**Revision Date:** 28-Apr-2014

**Revision Note**

Not applicable

**Disclaimer Statement**

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**End of Safety Data Sheet**