HALLIBURTON

SAFETY DATA SHEET

EZ-FLO II

Revision Date: 28-Jun-2013 **Revision Number:** 8

1. Product and Company Identification

Product Name
Product Trade Name: EZ-FLO II

Other Names
Synonyms: None
Product Code: HM006711

Recommended Use
Recommended Use
Flow Enhancer
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)

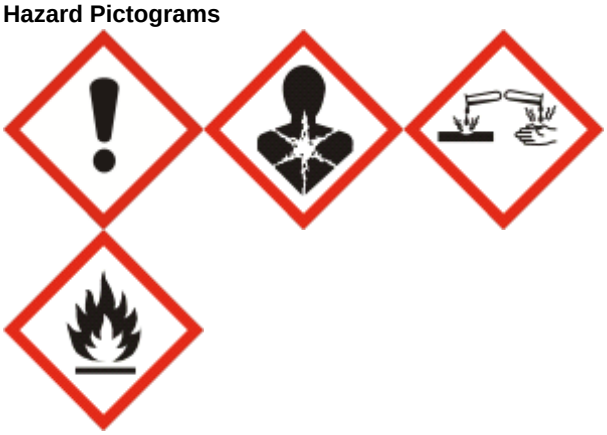
2. Hazard(s) Identification

Statement of Hazardous Nature
Not Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulation 2001; Not Classified as dangerous good according to NZS 5433:2012, UN, IMDG or IATA

Classification
3.1D Flammable Liquids - Low hazard
6.1D (Oral) Acutely Toxic Substances
6.1E (Dermal) Acutely Toxic Substances
6.1E (Inhalation) Acutely Toxic Substances
6.9B Harmful to human target organs or systems
8.1A Corrosive to metals
8.2B Corrosive to dermal tissue if exposed for greater than 3 mins
8.3A Corrosive to ocular tissue
9.1D Slightly harmful in the aquatic environment
9.3C Harmful to terrestrial vertebrates

Hazard and Precautionary Statements

Hazard Pictograms



Signal Word Danger

Hazard Statements

H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H302 - Harmful if swallowed
H313 - May be harmful in contact with skin
H333 - May be harmful if inhaled
H371 - May cause damage to organs
H227 - Combustible liquid
H290 - May be corrosive to metals
H402 - Harmful to aquatic life
H433 - Harmful to the terrestrial vertebrates.

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
P234 - Keep only in original container
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves/eye protection/face protection

Response

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P363 - Wash contaminated clothing before reuse
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P310 - Immediately call a POISON CENTER or doctor/physician
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P390 - Absorb spillage to prevent material damage
P370 + P380 + P375 - In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction

Storage

P403 + P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up

Disposal

P501 - Dispose of contents/container to an approved waste disposal plant

Contains

Substances	CAS Number	Substance HSNO Classification

Acetic acid	64-19-7	3.1C 6.1D (Oral) 6.1D (Dermal) 6.1D (Inhalation) 6.9B (Inhalation) 8.1A 8.2B 8.3A 9.1D (Algae, Crustacean, Fish) 9.3C
Ethylene glycol	107-21-1	6.1D (Oral) 6.4A 6.9A (Oral) 9.3C

2.3 Other Hazards
None known

3. Composition and Information on Ingredients

Substances	CAS Number	PERCENT (w/w)
Acetic acid	64-19-7	30 - 60%
Ethylene glycol	107-21-1	5 - 10%

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.

Skin 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.

Ingestion 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 and skin burns. May be harmful if swallowed.

Medical Attention and Special Treatment
Notes to Physician
Treat symptomatically

5. Fire-Fighting Measures

Type of Hazard
Flammability Hazard
Combustible 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: 2P

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

Decomposition in fire may produce toxic gases. Do not allow runoff to enter waterways.

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. Contain spill with sand or other inert materials. Neutralize to pH of 6-8. 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. Avoid creating or inhaling dust. Wash hands after use. Launder contaminated clothing before reuse.

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 alkalis. Keep from heat, sparks, and open flames. Keep container closed when not in use. Store in a cool well ventilated area. Store locked up. 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

Store only in original packaging Store in corrosive resistant container with a resistant inner liner.

8. Exposure Controls and Personal Protection

Workplace Exposure Standards

Exposure Limits

Substances	CAS Number	New Zealand WES	ACGIH TLV-TWA
Acetic acid	64-19-7	STEL: 15 ppm STEL: 37 mg/m^3 TWA: 10 ppm TWA: 25 mg/m^3	TWA: 10 ppm STEL: 15 ppm
Ethylene glycol	107-21-1	Not applicable	100 mg/m^3

Engineering Controls

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

Personal Protective Equipment (PPE)

Respiratory Protection	If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional. Organic vapor/acid gas respirator with a dust/mist filter.
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:	Powder	**Color:**	White
Odor:	Vinegar	**Odor Threshold:**	No information available

Property	Values	Remarks/ - Method
pH:	< 1	
Freezing Point/Range	No data available	
Melting Point/Range	No data available	
Boiling Point/Range	No data available	
Flash Point	61 °C PMCC	
Evaporation rate	No data available	
Vapor Pressure	No data available	
Vapor Density	No data available	
Specific Gravity	1.4	
Water Solubility	Partly soluble	
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

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. Aldehydes. Strong alkalis.

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

Aldehydes. Carbon monoxide and carbon dioxide. Acids.

Hazardous Reactions

Hazardous Polymerization: Will Not Occur

11. Toxicological Information

Health Effect from Likely Routes of Exposure

Acute Toxicity

Product Information Under certain conditions of use, some of the product ingredients may cause the following:

Inhalation Causes severe respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Eye Contact May cause eye burns.

Skin Contact May cause skin burns.

Ingestion Causes burns of the mouth, throat and stomach. May cause kidney damage. May affect the heart and cardiovascular system. May cause central nervous system effects.

Chronic Effects/Carcinogenicity Prolonged or repeated exposure may cause reproductive system damage. Prolonged or repeated exposure may cause embryo and fetus toxicity. Prolonged, excessive exposure may cause erosion of the teeth.

Toxicity Data

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetic acid	64-19-7	3310 mg/kg (Rat) 600 mg/kg (Rabbit) 4960 mg/kg (Mouse)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h
Ethylene glycol	107-21-1	4000 mg/kg (Rat) 7712 mg/kg (Rat) 1670 mg/kg (Cat)	9530 µL/kg (Rabbit) > 3500 mg/kg (Mouse)	> 2.5 mg/L (Rat) 6h

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	Daphnia Magna (Water Flea)
Acetic acid	64-19-7	EC50: 90 mg/L (Microcystis aeruginosa) EC50(72h): > 1000 mg/L (>300.82 mg/L – acetate ion) (Skeletonema costatum)	LC50: 79 mg/l (Pimephales promelas) LC50: 75 mg/l (Pimephales promelas) LC50(96h) > 1000 mg/L (>300.82 mg/L – acetate ion) (Oncorhynchus mykiss)	NOEC(16h): 1150 mg/L (Pseudomonas putida)	EC50: 47 mg/l (Daphnia magna) LC50: 32 mg/L (Artemia salina) EC50(48h) > 1000 mg/L (>300.82 mg/L – acetate ion) (Daphnia magna) NOEC(21d): 31.4 - 37.9 mg/L (Daphnia magna) (reproduction)

Ethylene glycol	107-21-1	EC50: 6500 - 13000 mg/L (Pseudokirchneriella subcapitata) TGK(8d): > 10000 mg/L (Scenedesmus quadricauda)	LC50: 41000 mg/L (Oncorhynchus mykiss) LC50(96h): 72860 mg/L (Pimephales promelas) NOEC(7d): 32000 mg/L (mortality) (Pimephales promelas)	TTC(16h): > 10000 mg/L (Pseudomonas putida) EC20(30 m): > 1995 mg/L (activated sludge, domestic) (similar substance – diethylene glycol)	EC50: 46300 mg/L (Daphnia magna) EC50(48h): >100 mg/L (Daphnia magna) NOEC(7d): 8590 mg/L (reproduction) (Ceriodaphnia dubia)

12.2 Persistence and degradability
No information available

12.3 Bioaccumulative potential
No information available

Substances	Log Pow
Acetic acid	-0.17 BCF 3.16 (Calculated)
Ethylene glycol	-1.36

12.4 Mobility in soil
No information available

Ecotoxicity Hazard Statements
Harmful to aquatic life
Harmful to terrestrial vertebrates.

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. 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: UN3244,
UN Proper Shipping Name: Solids Containing Corrosive Liquid, N.O.S.
Transport Hazard Class(es): , 8
Packing Group: , II
EMS: EmS F-A, S-B

NZ 5433.1999

UN Number: UN3244,
UN Proper Shipping Name: Solids Containing Corrosive Liquid, N.O.S.
Transport Hazard Class(es): , 8
Packing Group: , II

IATA/ICAO

UN Number: UN3244,
UN Proper Shipping Name: Solids Containing Corrosive Liquid, N.O.S.
Transport Hazard Class(es): , 8
Packing Group: , II

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	All components listed on inventory or are exempt.
HSNO Approval Number	HSR002492
Group Name	Additives, Process Chemicals and Raw Materials (Corrosive, Combustible HSR002492)
HSNO Controls	Refer to the NZ EPA website for more information: http://www.epa.govt.nz
Approved Handlers	Not Applicable
Poisons Schedule:	S6

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/
NZ CCID

Revision Date: 28-Jun-2013
Revision Note
Not applicable

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End of Safety Data Sheet