

SAFETY DATA SHEET

HALLIBURTON WELD A CONVERTER

Revision Date: 15-May-2013

Revision Number: 12

1. Product and Company Identification

Product Name**Product Trade Name:** HALLIBURTON WELD A CONVERTER**Other Names****Synonyms:** None
Product Code: HM000843**Recommended Use****Recommended Use** Curing Agent
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

6.1C (Dermal) Acutely Toxic Substances
6.1D (Oral) Acutely Toxic Substances
6.1D (Inhalation) Acutely Toxic Substances
6.5B Contact sensitisers
6.8B Human reproductive or developmental toxicants
6.9A Toxic to human target organs or systems
8.2B Corrosive to dermal tissue if exposed for greater than 3 mins.
8.3A Corrosive to ocular tissue
9.1B Ecotoxic in the aquatic environment
9.3C Harmful to terrestrial vertebrates

Hazard and Precautionary Statements

2. Hazard(s) Identification

Hazard Pictograms



Signal Word

Danger

Hazard Statements

H314 - Causes severe skin burns and eye damage
 H318 - Causes serious eye damage
 H317 - May cause an allergic skin reaction
 H311 - Toxic in contact with skin
 H302 - Harmful if swallowed
 H332 - Harmful if inhaled
 H361 - Suspected of damaging fertility or the unborn child
 H372 - Causes damage to organs through prolonged or repeated exposure
 H411 - Toxic to aquatic life with long lasting effects
 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.
 P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P261 - Avoid breathing 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
 P271 - Use only outdoors or in a well-ventilated area
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P281 - Use personal protective equipment as required

Response

P301+ P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 P330 - Rinse mouth
 P331 - 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 victim to fresh air and keep at rest in a position 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/physician
 P308 + P313 - IF exposed or concerned: Get medical advice/attention
 P314 - Get medical attention/advice if you feel unwell
 P391 - Collect spillage

Storage

P405 - Store locked up

2. Hazard(s) Identification

Disposal

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

Contains

Substances	CAS Number	Substance HSNO Classification
Tetraethylenepentamine	112-57-2	6.1C (Dermal) 6.1D (Inhalation) 6.1E (Oral) 6.5B (Contact) 8.2C 8.3A 9.1B (Algae) 9.1C (Crustacean) 9.3C
Triethylenetetraamine	112-24-3	6.1C (Dermal) 6.1D (Oral) 6.5B (Contact) 6.9A 6.9B C 8.3A 9.1B (Algae) 9.1C (Crustacean) 9.3C
Pentaethylenhexamine	4067-16-7	6.1D (Oral) 6.1D (Dermal) 6.5B (Contact) 8.2B 8.3A 9.1A

Other Hazards

None known

3. Composition and Information on Ingredients

Substances	CAS Number	PERCENT
Tetraethylenepentamine	112-57-2	60 - 100%
Triethylenetetraamine	112-24-3	10 - 30%
Pentaethylenhexamine	4067-16-7	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

4. First-Aid Measures

Relation to Health Effect

Most Important Symptoms/Effects

May cause eye and skin burns. May be harmful if swallowed. May be harmful if inhaled. May be absorbed through the skin. May cause allergic skin reaction. May cause headache, dizziness, and other central nervous system effects. Repeated overexposure may cause liver and kidney effects.

Medical Attention and Special Treatment

Notes to Physician

Treat symptomatically

5. Fire-Fighting Measures

Type of Hazard

Flammability Hazard

Non-flammable

Extinguishing media

Suitable Extinguishing Media

Carbon dioxide, dry chemical, foam.

Extinguishing media which must not be used for safety reasons

Do NOT spray pool fires directly with water. A solid stream of water directed into hot burning liquid can cause splattering.

HAZCHEM Code

Hazchem Code: 2X

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.

6. Spillage, Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment.

See Section 12 for additional information

Environmental precautions

Prevent from entering sewers, waterways, or low areas.

Methods and material for containment and cleaning up

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

Reference to other sections

See Section 12 for additional information.

7. Handling and Storage

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.

Handling Practices

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

7. Handling and Storage

Approved Handlers

If any quantity is present, then an approved handler must be present when the substance is being handled and when not in use, the substance must be locked away.

Conditions for safe storage, including any incompatibilities

Store in a cool well ventilated area. Keep container closed when not in use. Store locked up.

Store Site Requirements

No special controls required

Packaging

No special packaging required

8. Exposure Controls and Personal Protection

Workplace Exposure Standards

Substances	CAS Number	New Zealand WES	ACGIH TLV-TWA
Tetraethylenepentamine	112-57-2	Not applicable	Not applicable
Triethylenetetraamine	112-24-3	Not applicable	Not applicable
Pentaethylenehexamine	4067-16-7	Not applicable	Not applicable

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

In high concentrations, supplied air respirator or a self-contained breathing apparatus.

Hand Protection

Skin Protection

Eye Protection

Other Precautions

Hygiene Measures

Impervious rubber gloves. Neoprene gloves. Butyl rubber gloves.

Rubber apron.

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

Eyewash fountains and safety showers must be easily accessible.

Handle in accordance with good industrial hygiene and safety practice

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State: Liquid

Color: Yellow

Odor: Mild amine

Odor Threshold: No information available

Property

Values

Remarks/ Method

pH:

11.8

Melting Point/Range

No data available

Freezing Point/Range (C):

No data available

Boiling Point/Range

314°C

Flash Point

160°C

PMCC

Evaporation rate

No data available

Vapor Pressure

0.01 mmHg

Vapor Density

No data available

Specific Gravity

0.99

Water Solubility

Soluble in water

9. Physical and Chemical Properties

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

Other information

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

Chemical Stability

Stable

Conditions to Avoid

Keep away from heat, sparks and flame.

Incompatible Materials

Strong acids. Aldehydes. Epoxides.

Hazardous Decomposition Products

Oxides of nitrogen. Carbon monoxide and carbon dioxide.

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 moderate respiratory irritation. May cause allergic respiratory reaction.

Eye Contact

May cause moderate eye irritation. May cause corneal injury.

Skin Contact

May cause skin burns. May be absorbed through the skin and produce effects similar to those caused by inhalation and/or ingestion. May cause an allergic skin reaction.

Ingestion

May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation and central nervous system depression.

Chronic Effects/Carcinogenicity

Repeated overexposure may cause liver and kidney effects.

Toxicity Data

Substances	LD50 Oral	LD50 Dermal	LC50 Inhalation
Tetraethylenepentamine	2100 mg/kg (Rat)	660 mg/kg (Rabbit)	No data available
Triethylenetetraamine	2500 mg/kg (Rat)	550 mg/kg (Rabbit)	No data available
Pentaethylenhexamine	1600 mg/kg (Rat)	No data available	No data available

12. Ecological Information

Toxicity

Ecotoxicity Effects

Product Ecotoxicity Data

No data available

Substance Ecotoxicity Data

Substances	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Tetraethylenepentamine	EC50: 2.1 mg/L (Pseudokirchneriella subcapitata)	LC50: 420 mg/L (Poecilia reticulata)	No information available	EC50: 24.1 mg/L (Daphnia magna)
Triethylenetetraamine	EC50: 2.5 mg/L (Desmodesmus subspicatus)	LC50: 495 mg/L (Pimephales promelas)	No information available	EC50: 31.1 mg/L (Daphnia magna)
Pentaethylenehexamine	No information available	No information available	No information available	No information available

Persistence and degradability

Not readily biodegradable

Bioaccumulative potential

No information available

Mobility in soil

No information available

Ecotoxicity Hazard Statements

Toxic to aquatic life with long lasting effects

Harmful to terrestrial vertebrates.

Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

13. Disposal Considerations

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: UN2320,
UN Proper Shipping Name: Tetraethylenepentamine
Transport Hazard Class(es): , 8
Packing Group: , III
Environmental Hazards: , Limited Quantity
EMS: EmS F-A, S-B

NZ 5433.1999

UN Number: UN2320,

14. Transport Information

UN Proper Shipping Name: Tetraethylenepentamine
Transport Hazard Class(es): , 8
Packing Group: , III

IATA/ICAO

UN Number: UN2320,
UN Proper Shipping Name: Tetraethylenepentamine
Transport Hazard Class(es): , 8
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 All components listed on inventory or are exempt.

HSNO Approval Number HSR002615

Group Name Metal Industry Product (Toxic [6.1], Corrosive HSR002615)

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

Approved Handlers If any quantity is present, then an approved handler must be present when the substance is being handled and when not in use, the substance must be locked away.

Poisons Schedule: S5

16. Other Information

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: 15-May-2013

Revision Note Not applicable

Disclaimer Statement

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End of Safety Data Sheet