

SAFETY DATA SHEET

WellLock A1

Revision Date: 11-May-2015

Revision Number: 9

1. Product Identifier & Identity for the Chemical

Statement of Hazardous Nature Hazardous according to the criteria of the 3rd Revised Edition of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Non-Dangerous Goods according to the criteria of ADG.

1.1. Product Identifier

Product Name WellLock A1

Other means of Identification

Synonyms: None
Product Code: HM007349

Recommended use of the chemical and restrictions on use

Recommended Use Hardener
Uses Advised Against No information available

Supplier's name, address and phone number

Manufacturer/Supplier Halliburton Australia Pty. Ltd.
15 Marriott Road
Jandakot
WA 6164
Australia

ACN Number: 009 000 775
Telephone Number: 61 (08) 9455 8300
Fax Number: 61 (08) 9455 5300

E-Mail address: fdunexchem@halliburton.com

Emergency phone number

61 (08) 9455 8300

Australian Poisons Information Centre

24 Hour Service: - 13 11 26
Police or Fire Brigade: - 000 (exchange): - 1100

2. Hazard Identification

Statement of Hazardous Nature Hazardous according to the criteria of the 3rd Revised Edition of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Non-Dangerous Goods according to the criteria of ADG.

Classification of the hazardous chemical

Acute Oral Toxicity	Category 4 - H302
Acute Toxicity - Dermal	Category 4 - H312
Skin Corrosion / irritation	Category 1 B - H314
Serious Eye Damage / Eye Irritation	Category 1 - H318
Specific Target Organ Toxicity - (Single Exposure)	Category 3 - H335
Flammable liquids.	Category 4 - H227

Label elements, including precautionary statements**Hazard Pictograms****Signal Word**

Not Hazardous

Hazard Statements

H227 - Combustible liquid
 H302 - Harmful if swallowed
 H312 - Harmful in contact with skin
 H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 H335 - May cause respiratory irritation
 H402 - Harmful to aquatic life
 H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements**Prevention**

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 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
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P273 - Avoid release to the environment
 P280 - Wear protective gloves/eye protection/face protection

Response

P301+ P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 P330 - Rinse mouth
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell
 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
 P370 + P378 - In case of fire: Use water spray for extinction

Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P405 - Store locked up

Disposal

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

Contains**Substances**

Dimethylaminopropylamine

CAS Number

109-55-7

2,4,6 Tridimethylaminomethyl phenol	90-72-2
Benzenemethanol	100-51-6

Other hazards which do not result in classification

None known

Australia Classification

For the full text of the H-phrases mentioned in this Section, see Section 16

Classification

Xn - Harmful.

C - Corrosive

Risk Phrases

R34 Causes burns.

R21 Harmful in contact with skin.

R22 Harmful if swallowed.

R43 May cause sensitization by skin contact.

3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - Australia
Dimethylaminopropylamine	109-55-7	60 - 100%	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1B (H314) Eye Corr. 1 (H318) Skin Sens. 1 (H317) STOT SE 3 (H335) Aquatic Acute 3 (H402) Flam. Liq. 3 (H226)
2,4,6 Tridimethylaminomethyl phenol	90-72-2	5 - 10%	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1C (H314) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)
Benzenemethanol	100-51-6	1 - 5%	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Eye Irrit. 2A (H319)

4. First aid measures

Description of necessary first aid measures**Inhalation**

If inhaled, move victim to fresh air and seek medical attention.

Eyes

Immediately flush eyes with large amounts of water for at least 30 minutes. Seek prompt medical attention.

Skin

In case of contact, immediately flush skin with plenty of soap and water for at least 30 minutes and remove contaminated clothing, shoes and leather goods immediately. Get medical attention immediately.

Ingestion

Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

Symptoms caused by exposure

Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. May cause allergic skin reaction. Harmful if swallowed. Harmful in contact with skin. May cause respiratory irritation.

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

Treat symptomatically

5. Fire Fighting Measures

Suitable extinguishing equipment

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

Specific hazards arising from the chemical

Special Exposure Hazards

Decomposition in fire may produce toxic gases.

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.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas. Consult local authorities.

6.3. Methods and material for containment and cleaning up

Remove ignition sources and work with non-sparking tools. Contain spill with sand or other inert materials. Scoop up and remove. Flush area with water.

7. Handling and storage

7.1. Precautions for Safe Handling

Handling Precautions

Avoid contact with eyes, skin, or clothing. Wash hands after use. Avoid breathing vapors. Use only with local exhaust ventilation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Information

Store in a cool well ventilated area. Keep from heat, sparks, and open flames. Keep container closed when not in use. Store locked up. Product has a shelf life of 24 months.

Other Guidelines

No information available

8. Exposure Controls/Personal Protection

Control parameters - exposure standards, biological monitoring

Exposure Limits

Substances	CAS Number	Australia NOHSC	ACGIH TLV-TWA
Dimethylaminopropylamine	109-55-7	Not applicable	Not applicable
2,4,6 Tridimethylaminomethyl phenol	90-72-2	Not applicable	Not applicable
Benzenemethanol	100-51-6	Not applicable	Not applicable

Appropriate 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)

Personal Protective Equipment	If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.
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, AS/NZS 1715:2009, 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 respirator.
Hand Protection	Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Nitrile gloves. (>= 0.4 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Manufacturer's directions for use should be observed because of great diversity of types.
Skin Protection	Normal work coveralls.
Eye Protection	Wear safety glasses or goggles to protect against exposure.
Other Precautions	Eyewash fountains and safety showers must be easily accessible.
Environmental Exposure Controls	No information available

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid	Color: Yellow
Odor: Amine	Odor Threshold: No information available

<u>Property</u>	<u>Values</u>
Remarks/ - Method	
pH:	10-12 (10%)
Freezing Point/Range	No data available
Melting Point/Range	No data available
Boiling Point/Range	No data available
Flash Point	76 °C / 169 °F PMCC
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	1.01
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

10.1. Reactivity

Not expected to be reactive.

10.2. Chemical Stability

Stable

10.3. Possibility of Hazardous Reactions

Will Not Occur

10.4. Conditions to Avoid

Keep away from heat, sparks and flame.

10.5. Incompatible Materials

Strong oxidizers. Strong acids.

10.6. Hazardous Decomposition Products

Aldehydes. Carbon monoxide and carbon dioxide. Toxic fumes. Oxides of nitrogen.

11. Toxicological Information

Information on routes of exposure**Principle Route of Exposure** Eye or skin contact, inhalation.**Symptoms related to exposure****Most Important Symptoms/Effects**

Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. May cause allergic skin reaction. Harmful if swallowed. Harmful in contact with skin. May cause respiratory irritation.

Numerical measures of toxicity**Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dimethylaminopropylamine	109-55-7	922 mg/kg (Rat)	600 µL/kg (Rabbit)	4.31 mg/L (Rat) 4h
2,4,6 Tridimethylaminomethyl phenol	90-72-2	1000 mg/kg (Rat) 1673 mg/kg (Rat)	1280 mg/kg (Rat)	No data available
Benzenemethanol	100-51-6	1230 mg/kg (Rat) 1040 mg/kg (Rabbit) 1620 mg/kg (Rat)	2000 mg/kg (Rabbit)	8.8 mg/L (Rat) 4h > 4 mg/L (Rat) 4h (maximum concentration)

Immediate, delayed and chronic health effects from exposure**Inhalation**

May cause respiratory irritation.

Eye Contact

Causes severe eye irritation which may damage tissue.

Skin Contact

Causes severe skin irritation with tissue destruction. May cause an allergic skin reaction.

Ingestion

Harmful if absorbed through the skin.

Harmful if swallowed. Causes burns of the mouth, throat and stomach. May cause abdominal pain, vomiting, nausea, and diarrhea.

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 0.1% are chronic health hazards.**Exposure Levels**

No data available

Interactive effects

Skin disorders.

Data limitations

No data available

Substances	CAS Number	Skin corrosion/irritation
Dimethylaminopropylamine	109-55-7	Causes severe skin burns (Rabbit)
2,4,6 Tridimethylaminomethyl phenol	90-72-2	Skin, rabbit: Causes severe burns
Benzenemethanol	100-51-6	Not irritating to skin in rabbits.

Substances	CAS Number	Eye damage/irritation
Dimethylaminopropylamine	109-55-7	Causes severe eye irritation which may damage tissue. (Rabbit)
2,4,6 Tridimethylaminomethyl phenol	90-72-2	Eye, rabbit: Causes severe eye irritation which may damage tissue.
Benzenemethanol	100-51-6	Eye, rabbit: Causes moderate eye irritation.

Substances	CAS Number	Skin Sensitization
Dimethylaminopropylamine	109-55-7	May cause an allergic skin reaction. (mouse) Skin sensitizer in guinea pig.
2,4,6 Tridimethylaminomethyl phenol	90-72-2	May cause an allergic skin reaction. (guinea pig)
Benzenemethanol	100-51-6	Not regarded as a sensitizer.

Substances	CAS Number	Respiratory Sensitization
Dimethylaminopropylamine	109-55-7	No information available
2,4,6 Tridimethylaminomethyl phenol	90-72-2	No information available
Benzenemethanol	100-51-6	No information available

Substances	CAS Number	Mutagenic Effects
Dimethylaminopropylamine	109-55-7	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects.
2,4,6 Tridimethylaminomethyl phenol	90-72-2	In vitro tests did not show mutagenic effects Was not mutagenic in Salmonella bacterial assay.
Benzenemethanol	100-51-6	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Dimethylaminopropylamine	109-55-7	No information available.
2,4,6 Tridimethylaminomethyl phenol	90-72-2	No information available.
Benzenemethanol	100-51-6	Did not show carcinogenic effects in animal experiments

Substances	CAS Number	Reproductive toxicity
Dimethylaminopropylamine	109-55-7	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.
2,4,6 Tridimethylaminomethyl phenol	90-72-2	Animal testing did not show any effects on fertility.
Benzenemethanol	100-51-6	Did not show teratogenic effects in animal experiments. Animal testing did not show any effects on fertility. (similar substances)

Substances	CAS Number	STOT - single exposure
Dimethylaminopropylamine	109-55-7	May cause respiratory irritation.
2,4,6 Tridimethylaminomethyl phenol	90-72-2	No information available
Benzenemethanol	100-51-6	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	STOT - repeated exposure
Dimethylaminopropylamine	109-55-7	No data of sufficient quality are available.
2,4,6 Tridimethylaminomethyl phenol	90-72-2	No information available
Benzenemethanol	100-51-6	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Dimethylaminopropylamine	109-55-7	Not applicable

2,4,6 Tridimethylaminomethyl phenol	90-72-2	Not applicable
Benzenemethanol	100-51-6	Not applicable

12. Ecological Information

Ecotoxicity

Product Ecotoxicity Data

No data available

Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Dimethylaminopropylamine	109-55-7	EC50 (96h) 56.2 mg/L (Desmodesmus subspicatus)	LC50 (96h) 122 mg/L (Leuciscus idus melanotus) NOEC (96h) > 9 mg/L (Leuciscus idus melanotus)	No information available	EC50 (48h) 59.46 mg/L (Daphnia magna)
2,4,6 Tridimethylaminomethyl phenol	90-72-2	EC50 (72h) 84 mg/L (Desmodesmus subspicatus) NOEC(72h) 6.25 mg/L (Desmodesmus subspicatus)	TLM96 180-240 mg/l (Oncorhynchus mykiss) LC50 (96h) >180 mg/L (Oncorhynchus mykiss) LC50 (96h) 175 mg/L (Cyprinus carpio) LC50 (96h) 180 mg/L (Salmo gairdneri) LC50 (24h) 222 mg/L (Salmo gairdneri)	No information available	LC50 (96h) 718 gm/L (Palaemonetes vulgaris) LC50 (96h) 170 - 1000 mg/L (Neopanope texana)
Benzenemethanol	100-51-6	EC50 (72h) 500 mg/L (Pseudokirchnerella subcapitata) EC50 (72h) 770 mg/L (Pseudokirchnerella subcapitata)	LC50: 10 mg/L (Lepomis macrochirus) LC50 (96h) >100 mg/L (Oryzias latipes) LC50 (96h) 460 mg/L (Pimephales promelas)	EC50: 50 mg/L (Photobacterium phosphoreum) IC50 (49h) 2100 mg/L (Aerobic heterotrophs & Nitrosomonas)	EC50: 55 mg/L (Daphnia magna) EC50 (48h) 230 mg/L (Daphnia magna) EC50 (21d) 66 mg/L (Daphnia magna)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Dimethylaminopropylamine	109-55-7	No information available
2,4,6 Tridimethylaminomethyl phenol	90-72-2	(4% @ 28d)
Benzenemethanol	100-51-6	Readily biodegradable (92-96 @ 14d)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Dimethylaminopropylamine	109-55-7	No information available
2,4,6 Tridimethylaminomethyl phenol	90-72-2	> 0.218 (similar substance)
Benzenemethanol	100-51-6	1.05

12.4. Mobility in soil

12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

13. Disposal Considerations

Safe handling and disposal methods

Disposal should be made in accordance with federal, state, and local regulations. Substance should NOT be deposited into a sewage facility.

Disposal of any 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.

Environmental regulations

Not applicable

14. Transport Information

Transportation Information

UN Number: UN2735
UN Proper Shipping Name: Amines, Liquid, Corrosive, N.O.S. (Contains Dimethylaminopropylamine, Tris-2,4,6-(Dimethylaminomethyl) Phenol)
Transport Hazard Class(es): 8
Packing Group: II
Environmental Hazards: Not applicable

Special precautions during transport

None

HazChem Code

1[Z]

15. Regulatory Information

Safety, health and environmental regulations specific for the product**International Inventories**

Australian AICS Inventory All components listed on inventory or are exempt.
New Zealand Inventory of Chemicals All components listed on inventory or are exempt.
EINECS Inventory This product, and all its components, complies with EINECS
US TSCA Inventory All components listed on inventory or are exempt.
Canadian DSL Inventory All components listed on inventory or are exempt.

Poisons Schedule number

None Allocated

16. Other information

Date of preparation or review

Revision Date: 11-May-2015

Revision Note

SDS sections updated: 2

Full text of R-phrases referred to under Sections 2 and 3

R10 Flammable.
R20/22 Harmful by inhalation and if swallowed.
R34 Causes burns.
R36 - Irritating to eyes
R43 May cause sensitization by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52 Harmful to aquatic organisms.

Full text of H-Statements referred to under sections 2 and 3

H226 - Flammable liquid and vapor
H227 - Combustible liquid
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H402 - Harmful to aquatic life
H411 - Toxic to aquatic life with long lasting effects

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 Stewardship at 1-580-251-4335.

Key abbreviations or acronyms used

Not applicable

Key literature references and sources for data

www.ChemADVISOR.com/
NZ CCID

Disclaimer Statement

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

End of Safety Data Sheet