

SAFETY DATA SHEET

STARCID[®]

Revision Date: 15-Nov-2018

Revision Number: 7

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), Dangerous Goods according to the criteria of ADG.

1.1. Product Identifier

Product Name STARCID[®]

Other means of Identification

Synonyms None
Hazardous Material Number: HB003388

Recommended use of the chemical and restrictions on use

Recommended Use Bactericide
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 1 800 686 951
Fax Number: 61 (08) 9455 5300
E-mail Address fdunexchem@halliburton.com

Emergency phone number

+ 61 1 800 686 951
Global Incident Response Access Code: 334305
Contract Number: 14012

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), Dangerous Goods according to the criteria of ADG.

Classification of the hazardous chemical

Acute Oral Toxicity	Category 4 - H302
Acute inhalation toxicity - vapor	Category 4 - H332
Acute inhalation toxicity - dust/mist	Category 4 - H332
Skin Corrosion/Irritation	Category 1 - H314
Serious Eye Damage/Irritation	Category 1 - H318
Skin Sensitization	Category 1 - H317
Specific Target Organ Toxicity - (Repeated Exposure)	Category 2 - H373
Acute Aquatic Toxicity	Category 2 - H401
Chronic Aquatic Toxicity	Category 3 - H412

- H251

Label elements, including precautionary statements

Hazard Pictograms



Signal Word

DANGER

Hazard Statements:

- H302 - Harmful if swallowed
- H314 - Causes severe skin burns and eye damage
- H332 - Harmful if inhaled
- H317 - May cause an allergic skin reaction
- H373 - May cause damage to organs through prolonged or repeated exposure
- H401 - Toxic to aquatic life
- H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements

Prevention

- 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
- P271 - Use only outdoors or in a well-ventilated area
- P272 - Contaminated work clothing should not be allowed out of the workplace
- P273 - Avoid release to the environment

Response

- P280 - Wear protective gloves/protective clothing/eye protection/face protection
 - 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 [or 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
 - 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
 - P391 - Collect spillage
- Storage**
Disposal
- P405 - Store locked up
 - P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

Contains Substances

3, 3'-Methylene bis (5-methyl oxazolidine)

CAS Number

66204-44-2

Other hazards which do not result in classification

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
 This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

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

3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - Australia
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3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	60 - 100%	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Skin Corr. 1C (H314) Eye Corr. 1 (H318) Skin Sens. 1 (H317) STOT RE 2 (H373) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)
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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 if inhaled. May cause damage to organs through prolonged or repeated exposure.

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 in a fire

Decomposition in fire may produce harmful gases.

Special protective equipment and precautions for fire fighters

Special protective equipment for firefighters

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. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation. Evacuate all persons from the area.

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

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

7. Handling and storage

7.1. Precautions for safe handling**Handling Precautions**

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Avoid breathing mist. Ensure adequate ventilation. Do NOT consume food, drink, or tobacco in contaminated areas. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.

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 original container. Store away from oxidizers. Store away from acids. Store in a cool well ventilated area. Keep container closed when not in use. Product has a shelf life of 12 months. Keep Away From Food

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
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	Not applicable	Not applicable

Appropriate engineering controls**Engineering Controls**

Use in a well ventilated area.

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. Butyl rubber gloves. (>= 0.7 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

Wear impervious protective clothing, including boots, gloves, lab coat, apron, rain jacket, pants or coverall, as appropriate, to prevent skin contact.

Eye Protection

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

Other Precautions

Eyewash fountains and safety showers must be easily accessible.

Environmental Exposure Controls

Do not flush into surface water or sanitary sewer system Avoid subsoil penetration

9. Physical and Chemical Properties
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9.1. Information on basic physical and chemical properties

Physical State: Liquid	Color: Colorless to slight yellow
Odor: Sweet amine	Odor Threshold: No information available

<u>Property</u>	<u>Values</u>
<u>Remarks/ - Method</u>	
pH:	10 (0.15%)
Freezing Point / Range	No data available
Melting Point / Range	< -35 °C / -31 °F
Pour Point / Range	No data available
Boiling Point / Range	204 °C / 399.2 °F
Flash Point	> 100 °C / > 212 °F (PMCC)
Evaporation rate	No data available
Vapor Pressure	0.014 hPa
Vapor Density	No data available
Specific Gravity	1.049 - 1.069
Water Solubility	Soluble in water
Solubility in other solvents	benzene heptane
Partition coefficient: n-octanol/water	1.89
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	21 mPas @ 20°C
Explosive Properties	No information available
Oxidizing Properties	No information available
9.2. Other information	
Molecular Weight	186.25
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

None anticipated

10.5. Incompatible materials

Strong oxidizers. Strong acids. Reducing agents.

10.6. Hazardous decomposition products

Formaldehyde. Oxides of nitrogen. Oxides of sulfur.

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 if inhaled. May cause damage to organs through prolonged or repeated exposure.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	900 mg/kg (Rat)	-	2 mg/L (Rat, 4 hr, aerosol)

Immediate, delayed and chronic health effects from exposure

Inhalation

Harmful if inhaled. Causes severe respiratory irritation.

Eye Contact

Causes eye burns

Skin Contact

Causes severe burns. May cause an allergic skin reaction.

Ingestion Harmful if swallowed. Causes burns of the mouth, throat and stomach.

Chronic Effects/Carcinogenicity Prolonged or repeated exposure may cause damage to the upper respiratory tract. Formaldehyde, a suspected carcinogen, is released when heated.

Exposure Levels

No data available

Interactive effects

Skin disorders. Eye ailments.

Data limitations

No data available

Substances	CAS Number	Skin corrosion/irritation
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	Causes severe irritation and or burns (Rabbit)

Substances	CAS Number	Serious eye damage/irritation
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	Causes severe irritation and or burns (Rabbit)

Substances	CAS Number	Skin Sensitization
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	May cause sensitization by skin contact (guinea pig)

Substances	CAS Number	Respiratory Sensitization
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	No information available

Substances	CAS Number	Mutagenic Effects
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	In vivo tests did not show mutagenic effects. In vitro tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	Did not show carcinogenic effects in animal experiments

Substances	CAS Number	Reproductive toxicity
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	STOT - repeated exposure
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	Causes damage to organs through prolonged or repeated exposure: Gastrointestinal tract (GI) Respiratory system

Substances	CAS Number	Aspiration hazard
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	Not applicable

12. Ecological Information

Ecotoxicity

Product Ecotoxicity Data

Product is not classified as hazardous to the environment.

Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to	Toxicity to Invertebrates

				Microorganisms	
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	EC50(72 h)=5.7 mg/L (Desmodesmus subspicatus) EC50()=3.35 mg/L (Skeletonema costatum)	LC50(96 h)=135.21 mg/L (Scophthalmus maximus)	EC50: 44 mg/L (activated sludge)	EC50(48 h)=37.9 mg/L (Daphnia magna) EC50(48 h)=4.1 mg/L (Acartia tonsa) NOEC(21 d)=1.3 mg/L (Daphnia magna)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	Readily biodegradable (69.4% @ 28d)

12.3. Bioaccumulative potential

Substances	CAS Number	Bioaccumulation
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	Log Pow=-0.11

12.4. Mobility in soil

Substances	CAS Number	Mobility
3, 3'-Methylene bis (5-methyl oxazolidine)	66204-44-2	No information available

12.6. Other adverse effects

Does not contain any organically bound halogen. May not increase the AOX value when discharged from treatment plants or into natural waters.

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. Incineration recommended in approved incinerator according to 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.

Environmental regulations

Not applicable

14. Transport Information

Transportation Information**Australia ADG**

UN Number	UN2735
UN proper shipping name:	Amines, Liquid, Corrosive, N.O.S. (Contains N, N' -Methylenebis[5-methyl oxazolidine])
Transport Hazard Class(es):	8
Packing Group:	III
Environmental Hazards:	Not applicable

IMDG/IMO

UN Number	UN2735
UN proper shipping name:	Amines, Liquid, Corrosive, N.O.S. (Contains N, N' -Methylenebis[5-methyl oxazolidine])
Transport Hazard Class(es):	8
Packing Group:	III
Environmental Hazards:	Not applicable
EMS:	EmS F-A, S-B

IATA/ICAO

UN Number	UN2735
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UN proper shipping name: Amines, Liquid, Corrosive, N.O.S. (Contains N, N' -Methylenebis[5-methyl oxazolidine])
Transport Hazard Class(es): 8
Packing Group: III
Environmental Hazards: Not applicable

Special precautions during transport

None

HazChem Code

2X

15. Regulatory Information**Safety, health and environmental regulations specific for the product****International Inventories****Australian AICS Inventory**

All components are listed on the AICS or are subject to a relevant exemption, permit, or assessment certificate.

New Zealand Inventory of Chemicals

All components are listed on the NZIoC or are subject to a relevant exemption, permit, or assessment certificate.

US TSCA Inventory

All components listed on inventory or are exempt.

Canadian Domestic Substances List (DSL)

All components listed on inventory or are exempt.

Poisons Schedule number

None Allocated

International Agreements**Montreal Protocol - Ozone Depleting Substances:**

Does not apply.

Stockholm Convention - Persistent Organic Pollutants:

Does not apply

Rotterdam Convention - Prior Informed Consent:

Does not apply.

Basel Convention - Hazardous Waste:

Does not apply.

16. Other information**Date of preparation or review****Revision Date:** 15-Nov-2018**Revision Note****Full text of H-Statements referred to under sections 2 and 3**

H302 - Harmful if swallowed

H311 - Toxic in contact with skin

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H332 - Harmful if inhaled

H341 - Suspected of causing genetic defects

H350 - May cause cancer

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

bw – body weight

CAS – Chemical Abstracts Service
CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures
EC – European Commission
EC10 – Effective Concentration 10%
EC50 – Effective Concentration 50%
EEC – European Economic Community
ErC50 – Effective Concentration growth rate 50%
IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL0 – Lethal Loading 0%
LL50 – Lethal Loading 50%
MARPOL – International Convention for the Prevention of Pollution from Ships
mg/kg – milligram/kilogram
mg/L – milligram/liter
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NTP – National Toxicology Program
OEL – Occupational Exposure Limit
PBT – Persistent Bioaccumulative and Toxic
PC – Chemical Product category
PEL – Permissible Exposure Limit
ppm – parts per million
PROC – Process category
REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL – Short Term Exposure Limit
SU – Sector of Use category
TWA – Time-Weighted Average
UN – United Nations
VOC – Volatile Organic Carbon
vPvB – very Persistent and very Bioaccumulative
VLA-ED - time-weighted average values for a whole work shift [Spain valores límite ambientales para la exposición diaria]
NDS - najwyższe dopuszczalne stężenie na stanowisku pracy
SZW - Netherlands Ministry of Social Affairs and Employment
ADR - The European Agreement concerning the International Carriage of Dangerous Goods by Road
AS/NZS 1715 - New Zealand Standard on Selection, use and maintenance of respiratory protective equipment
C - Celsius
EN 149 - European standard on filtering halfmasks to protect against particles
EN 374 - European standard on Protective gloves against chemicals and micro-organisms
FFP - Filtering Facepieces
h - hour
IATA/ICAO - International Air Transport Association / International Civil Aviation Organization
IMDG/IMO - International Maritime Dangerous Goods / International Maritime Organization
mg/m³ - milligram/cubic meter
mm - millimeter
mmHg - millimeter mercury
NDS - OEL-TWA [Poland najwyższe dopuszczalne stężenie na stanowisku pracy]
R/H-phrases - Risk/Hazard-phrases
RID - The European Agreement concerning the International Carriage of Dangerous Goods by Rail
UK - United Kingdom
w/w - weight/weight
VLA-EC - short-time excursion limits [Spain valores límite ambientales para la exposición de corta duración]
MAK - Maximum Workplace Concentration
d - day

Key literature references and sources for data

www.ChemADVISOR.com/
NZ CCID

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End of Safety Data Sheet