



Safety Data Sheet SAFE-CIDE†

1. Identification of the substance/preparation and of the Company/undertaking

1.1 Product identifier

Product name SAFE-CIDE†
Product code MI10707

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Biocide
Uses advised against Consumer use

1.3 Details of the supplier of the safety data sheet

Supplier
M-I Australia Pty Ltd
Level 5
256 St. George Terrace
Perth
WA 6000
T= 08 9440 2900
MISDS@slb.com

1.4 Emergency Telephone Number

Emergency telephone - (24 Hour) Australia +61 2801 44558, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, New Zealand +64 9929 1483, USA 001 281 561 1600

Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
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2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to (EC) No. 1272/2008

Health hazards

Acute oral toxicity	Category 4
Acute inhalation toxicity - vapor	Category 2
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

Environmental hazards Not classified

Physical Hazards Not classified

2.2 Label elements



Signal word DANGER

Hazard statements

H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H330 - Fatal if inhaled
H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary Statements - EU (§28, 1272/2008)

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P304 + P340 - IF INHALED: Remove 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
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Supplementary precautionary statements

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
P284 - Wear respiratory protection
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P314 - Get medical advice/attention if you feel unwell
P330 - Rinse mouth
P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention
P362 - Take off contaminated clothing and wash before reuse
P501 - Dispose of contents/ container to an approved waste disposal plant

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Indication of danger

T - Toxic
Xn - Harmful
Xi - Irritant

R-code(s)

R22, R23, R38, R41 R43, R48/23

Contains

2,2''',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol

Tetrasodium ethylenediaminetetraacetate

2-aminoethanol

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

2.3 Other data

Not classified as PBT/vPvB by current EU criteria

Australian statement of hazardous/dangerous nature

Classified as Hazardous according to the criteria of NOHSC.

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

3. Composition/information on ingredients

3.1 Substances

Not Applicable

3.2 Mixtures

Component	EC-No.	CAS-No	Weight % - range	Classification (67/548)	Classification (Reg. 1272/2008)	REACH registration number
2,2''',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	255-208-0	4719-04-4	60-100	Xn; R22 T; R23 T;R48/23 R43	Acute Tox. 4 (H302) Acute Tox. 2(H330) Skin Sens. 1 (H317) STOT RE. 1(H372)	No data available
Tetrasodium ethylenediaminetetraacetate	200-573-9	64-02-8	1-5	Xn; R22 Xi; R41	Acute Tox. 4 (H302) Eye Dam. 1 (H318)	01-2119486762-27-xxx
2-aminoethanol	205-483-3	141-43-5	1-5	Xn; R20/21/22 C; R34	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Corr. 1B (H314)	01-2119486455-28-xxx

Comments

The product contains other ingredients which do not contribute to the overall classification.

4. First aid measures

4.1 First-Aid Measures

Inhalation

Call a physician or Poison Control Centre immediately. Move the exposed person to fresh air at once. Keep at rest. If breathing is difficult, (trained personnel should) give oxygen. Take victim immediately to hospital.

Ingestion

Rinse mouth. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Seek medical attention at once.

Skin contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Seek medical attention if irritation occurs. Get medical attention immediately if symptoms occur.

Eye contact

Remove contact lenses. Immediately flush eyes with water for 15 minutes while holding eyelids open. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General advice	Seek medical attention for all burns, regardless how minor they may seem. The severity of the symptoms described will vary dependant of the concentration and the length of exposure. If adverse symptoms develop, the casualty should be transferred to hospital as soon as possible.
Main symptoms	
Inhalation	Please see Section 11. Toxicological Information for further information.
Ingestion	Please see Section 11. Toxicological Information for further information.
Skin contact	Please see Section 11. Toxicological Information for further information.
Eye contact	Please see Section 11. Toxicological Information for further information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry chemical, CO₂, water spray or regular foam.

Extinguishing media which shall not be used for safety reasons

None known.

5.2 Special hazards arising from the substance or mixture

Unusual fire and explosion hazards

None known.

Hazardous combustion products

Fire or high temperatures create: Carbon oxides (COx), Nitrogen oxides (NOx), Sulphur oxides.

5.3 Advice for firefighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

Special Fire-Fighting Procedures

Containers close to fire should be removed immediately or cooled with water.

Hazchem code ADG

2X

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe vapors or spray mist. Keep people away from and upwind of spill/leak. Do not get on skin or clothing. Wash thoroughly after handling. Use personal protective equipment. See also section 8.

6.2 Environmental precautions

The product should not be allowed to enter drains, water courses or the soil.

Environmental exposure controls

Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).

6.4 Reference to other sections

See section 13 for more information.

7. Handling and storage

7.1 Precautions for safe handling

Handling

Handle in accordance with good industrial hygiene and safety practice. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing. Avoid spills and splashing during use. Persons susceptible to allergic reactions should not handle this product.

Hygiene measures

Use good work and personal hygiene practices to avoid exposure. When using do not smoke, eat or drink. Wash hands and face before breaks and immediately after handling the product. Remove contaminated clothing.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/precautions	Ensure adequate ventilation. Keep airborne concentrations below exposure limits.
Storage precautions	Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid contact with: Strong acids. Strong oxidizing agents Nitrites
Storage class	Toxic storage.
Packaging material	Use specially constructed containers only Plastic container

7.3 Specific end uses

See Section 1.2.

8. Exposure controls/personal protection

8.1 Control parameters

Exposure limits	No biological limit allocated
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Component	EU OEL	Austria	Australia	Denmark
2,2''',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	Not determined	Not determined	Not determined	Not determined
Tetrasodium ethylenediaminetetraacetate	Not determined	Not determined	Not determined	Not determined
2-aminoethanol	1 ppm TWA 2.5 mg/m ³ TWA 3 ppm STEL 7.6 mg/m ³ STEL Possibility of significant uptake through the skin	Not determined	3 ppm TWA; 7.5 mg/m ³ TWA 6 ppm STEL; 15 mg/m ³ STEL	1 ppm TWA 2.5 mg/m ³ TWA Potential for cutaneous absorption

Component	Finland	France	Germany	Hungary
2,2''',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	Not determined	Not determined	Not determined	Not determined
Tetrasodium ethylenediaminetetraacetate	Not determined	Not determined	Not determined	Not determined
2-aminoethanol	Not determined	1 ppm 2.5 mg/m ³	2 ppm MAK 5.1 mg/m ³ MAK	Not determined

Component	New Zealand	Italy	Netherlands	Norway
2,2''',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	Not Determined	Not determined	Not determined	Not determined
Tetrasodium ethylenediaminetetraacetate	Not Determined	Not determined	Not determined	Not determined
2-aminoethanol	6 ppm STEL 15 mg/m ³ STEL 3 ppm TWA 7.5 mg/m ³ TWA	Not determined	2.5 mg/m ³	1 ppm TWA 2.5 mg/m ³ TWA Skin

Component	Poland	Portugal	Romania	Russia
2,2''',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	Not determined	Not determined	Not determined	Not determined
Tetrasodium ethylenediaminetetraacetate	Not determined	Not determined	Not determined	Not determined
2-aminoethanol	7.5 mg/m ³ STEL 2.5 mg/m ³ TWA	6 ppm STEL 3 ppm TWA	Not determined	0.5 mg/m ³ MAC Skin

Component	Spain	Switzerland	Turkey	UK
2,2''',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	Not determined	Not determined	Not determined	Not determined
Tetrasodium ethylenediaminetetraacetate	Not determined	Not determined	Not determined	Not determined
2-aminoethanol	3 ppm VLA-EC 7.5 mg/m ³ VLA-EC Skin 1 ppm VLA-ED indicative limit value 2.5 mg/m ³ VLA-ED indicative limit value	4 ppm STEL 10 mg/m ³ STEL 2 ppm MAK 5 mg/m ³ MAK	3 ppm STEL 7.6 mg/m ³ STEL Skin 1 ppm TWA 2.5 mg/m ³ TWA	3 ppm STEL 7.6 mg/m ³ STEL Skin 1 ppm TWA 2.5 mg/m ³ TWA

Derived No Effect Level (DNEL)

Long term exposure local effects

2-aminoethanol

Inhalation 3.3 mg/m³

Long term exposure systemic effects

2-aminoethanol

Dermal 1 mg/kg

Predicted No Effect Concentration (PNEC)

2-aminoethanol

Fresh water	0.085 mg/l
Sea water	0.0085 mg/l
Fresh water sediment	0.434 mg/kg
Sea sediment	0.0434 mg/kg
Soil	0.0367 mg/kg
Impact on sewage treatment	100 mg/l
Intermittent release	0.028 mg/l

8.2 Exposure controls

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

Engineering measures to reduce exposure

Ensure adequate ventilation. Local exhaust ventilation. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal protective equipment

Eye protection

It is good practice to wear goggles when handling any chemical. Tightly fitting safety goggles. Face-shield.

Hand protection

Impervious gloves made of: Neoprene, Nitrile, Viton, PVC, Be aware that liquid may penetrate the gloves. Frequent change is advisable.

Respiratory protection

Use respirator with organic vapor protection (A, brown), At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used, If there are conditions in which this triazine containing product produces a vapor, a chemical respirator with A1 + Formaldehyde and P2 particulate pre-filter combination would be required.

Skin and body protection

Wear suitable protective clothing, Eye wash and emergency shower must be available at the work place.

Hygiene measures

Wash hands before eating, drinking or smoking, Remove and wash contaminated clothing before re-use.



9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Odor	Characteristic
Color	Colorless - Pale yellow
Odor threshold	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	No information available	
pH @ dilution	10.0 - 11.5	@ 100g/l H ₂ O
Melting/freezing point	No information available	

Boiling point/range	> 100 °C	
Flash point	> 200 °C	
Evaporation rate (BuAc =1)	No information available	
Flammability (solid, gas)	Not Applicable	
Flammability Limits in Air		
Upper flammability limit	Not applicable	
Lower flammability limit	Not applicable	
Vapor pressure	14.8 hPa	@ 20 °C
Vapor density	No information available	
Specific gravity	No information available	
Bulk density	No information available	
Relative density	1.15 - 1.16	
Water solubility	Miscible with water.	
Solubility in other solvents	No information available	
Autoignition temperature	>200 °C	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	1850 mPa s	@ 20 °C
Log Pow	Not determined	
Explosive properties	Not Applicable	
Oxidizing properties	None known.	

9.2 Other information

Pour point	No information available
Molecular weight	No information available
VOC content(%)	None
Density	No information available

10. Stability and reactivity

10.1 Reactivity

Contact with strong acids develops formaldehyde.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of Hazardous Reactions

Hazardous polymerization

Hazardous polymerization does not occur.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Strong oxidizing agents. Nitrites. Strong acids.

10.6 Hazardous decomposition products

See also section 5.2.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product information This product may contain or release trace amounts of formaldehyde. The International Agency for Research on Cancer (IARC) has classified formaldehyde as a Group 1 carcinogen (limited evidence in humans, sufficient evidence in animals). Exposure to formaldehyde has been linked to adverse reproductive effects in some human and animal studies. In other reproductive studies, however, no adverse effects were noted. (Meditext). Formaldehyde may also cause skin sensitisation (allergic reaction).

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

Eye contact Causes serious eye irritation.

Skin contact Causes skin irritation. May cause an allergic skin reaction. Components of the product may be absorbed into the body through the skin.

Ingestion Harmful if swallowed.

Acute toxicity

LD50 Oral > 1000 - <2000 mg/kg (rat)

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	= 763 mg/kg (Rat)	> 2 g/kg (Rat)	No data available
Tetrasodium ethylenediaminetetraacetate	= 10 g/kg (Rat)	No data available	No data available
2-aminoethanol	= 1720 mg/kg (Rat)	= 1025 mg/kg (Rabbit) = 1 mL/kg (Rabbit)	No data available

Sensitization May cause sensitization by skin contact.

Mutagenic effects This product does not contain any known or suspected mutagens.

Carcinogenicity This product does not contain any known or suspected carcinogens.

Reproductive toxicity None known.

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Routes of entry Inhalation. Ingestion. Skin absorption.

Specific target organ toxicity (single exposure) Not classified

Specific target organ toxicity (repeated exposure) Category 1.

Target organ effects Respiratory system.

Aspiration hazard No hazard from product as supplied.

12. Ecological information

12.1 Toxicity

The product component(s) are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Toxicity to algae

See component information below.

Toxicity to fish

See component information below.

Toxicity to daphnia and other aquatic invertebrates

See component information below.

Component	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	No information available	No information available	No information available
Tetrasodium ethylenediaminetetraacetate	41 mg/L LC50 (Lepomis macrochirus) = 96 h 59.8 mg/L LC50 (Pimephales promelas) = 96 h	1.01 mg/L EC50 (Desmodesmus subspicatus) = 72 h	610 mg/L EC50 (Daphnia magna) = 24 h
2-aminoethanol	227 mg/L LC50 (Pimephales promelas) = 96 h 3684 mg/L LC50 (Brachydanio rerio) = 96 h 300 - 1000 mg/L LC50 (Lepomis macrochirus) = 96 h 114 - 196 mg/L LC50 (Oncorhynchus mykiss) = 96 h 200 mg/L LC50 (Oncorhynchus mykiss) = 96 h	15 mg/L EC50 (Desmodesmus subspicatus) = 72 h	65 mg/L EC50 (Daphnia magna) = 48 h

12.2 Persistence and degradability

Product is biodegradable.

12.3 Bioaccumulative potential

No product level data available.

12.4 Mobility in soil

Mobility

The product is miscible with water. May spread in water systems.

12.5 Results of PBT and vPvB assessment

Not classified as PBT/vPvB by current EU criteria.

12.6 Other adverse effects.

None known.

13. Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Empty containers should be taken for local recycling, recovery or waste disposal.
EWC Waste disposal No.	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: EWC waste disposal No: 07 04 01 Waste Code: 7111 - Pesticides without mercury

14. Transport information

14.1 UN Number

UN/ID No. (ADR/RID/ADN/ADG)	UN2810
UN No. (IMDG)	UN2810
UN No. (ICAO)	UN2810

14.2 Proper shipping name

TOXIC LIQUID, ORGANIC, N.O.S. (2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol)

14.3 Hazard class(es)

ADR/RID/ADN Hazard class	6.1
IMDG Hazard class	6.1
ICAO Hazard class/division	6.1

14.4 Packing group

ADR/RID/ADN Packing Group	II
IMDG Packing group	II
ICAO Packing group	II



14.5 Environmental hazard

No

14.6 Special precautions

Hazard identification no (ADR)	60
EmS (IMDG)	F-A, S-A
Emergency action code	2X
Tunnel restriction code	(D/E)
Hazchem code ADG	2X

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Please contact MISDS@slb.com for info regarding transport in Bulk.

15. Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Germany, Water Endangering Classes (VwVwS) Water endangering class = 1

Australian Standard for the Uniform Scheduling of Drugs and Poisons

2-aminoethanol
Schedule 4
Schedule 6
Schedule 5

New Zealand hazard classification Classified

HSNO approval no. HSR002625; N.O.S. (Toxic [6.1, 6.7]) Group Standard 2006

Group number 6.1B, 6.1D, 6.5B

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008.

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC: 2011 (2003)].

National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004) 3rd Edition].

National Occupational Health and Safety Commission's Exposure Standards for Atmospheric Contaminants in the occupational Environment [NOHSC:1003 (1995)].

Safe Work Australia.

Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

ADG Code – Australian Dangerous Goods Code.

Dutch Mining Regulations: In accordance with Mining Regulations 9.2 and Chapter 4 of the Working Conditions Decree.

International inventories

USA (TSCA)	Complies
European Union (EINECS and ELINCS)	Complies
Canada (DSL)	Complies
Philippines (PICCS)	Complies
Japan (ENCS)	Complies
China (IECSC)	Complies
Australia (AICS)	Complies
Korean (KECL)	Complies
New Zealand (NZIoC)	Complies

Contact REACH@miswaco.slb.com for REACH information.

15.2 Chemical Safety Report

No information available

16. Other information

Prepared by Global Chemical Regulatory Compliance (GCRC) , Sarah Malone

Supersedes date 13/Jul/2011

Revision date 20/Nov/2014

Version 10

The following sections have been revised This SDS has been made in a new database and therefore a new layout. There have been changes with regard to classification, Updated according to GHS/CLP.

Text of R phrases mentioned in Section 2 and 3

- R22 - Harmful if swallowed
- R23 - Toxic by inhalation
- R34 - Causes burns
- R41 - Risk of serious damage to eyes
- R43 - May cause sensitization by skin contact
- R38 - Irritating to skin

- R48/23 - Toxic: danger of serious damage to health by prolonged exposure through inhalation
- R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed

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

- H302 - Harmful if swallowed
- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H318 - Causes serious eye damage
- H330 - Fatal if inhaled
- H372 - Causes damage to organs through prolonged or repeated exposure
- H312 - Harmful in contact with skin
- H314 - Causes severe skin burns and eye damage
- H318 - Causes serious eye damage
- H332 - Harmful if inhaled

†A mark of M-I L.L.C.

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.