

Safety Data Sheet **FORMAMIDE**

SDS no. 43VKKK2G • Version 1.0 • Date of issue: 2024-09-23

SECTION 1: Identification

GHS Product identifier

Product name FORMAMIDE

Recommended use of the chemical and restrictions on use

Laboratory and Analytical Reagent

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Specific target organ toxicity following repeated exposure, Cat. 2
- Toxic to reproduction, Cat. 1

GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H360
H373

May damage fertility or the unborn child
May cause damage to organs [blood] through prolonged or repeated exposure [oral]

Precautionary statement(s)

P202
P260
P280
P308+P313
P314
P405
P501

Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
IF exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
Store locked up.
Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 45.04

Components

Component	CAS no.	Concentration
FORMAMIDE (EC no.: 200-842-0; Index no.: 616-052-00-8)	75-12-7	<= 100 % (weight)
CLASSIFICATIONS: Carcinogenicity, Cat. 2; Toxic to reproduction, Cat. 1B; Specific target organ toxicity following repeated exposure, Cat. 2. HAZARDS: H351 - Suspected of causing cancer [route]; H360 - May damage fertility or the unborn child [effect, route]; H360D - May damage the unborn child; H373 - May cause damage to organs [organs] through prolonged or repeated exposure [route].		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor (at once).

First Aid Facilities: Maintain eyewash fountain in work area.

If inhaled

If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

In case of skin contact

Wash skin with water using soap if available. Remove contaminated clothing and wash before re-use. Seek medical advice if effects persist.

In case of eye contact

Wash with large amounts of water for approximately 15 minutes, holding eyelids open. Seek medical attention if irritation develops or persist.

If swallowed

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Small fire: Use dry chemical, CO₂, water spray.

Large fire: The use of water spray or foam.

If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out.

Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes in fire including carbon monoxide, hydrogen cyanide, ammonia and nitrogen oxides.

May burn but do not ignite readily. Fumoff may pollute waterways. Fire may produce irritating, poisonous and/or corrosive gases.

Special protective actions for fire-fighters

Wear SCBA and structural firefighter's uniform.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Evacuate the area of all non-essential personnel. Avoid inhalation, contact with skin, eyes and clothing.

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

Methods and materials for containment and cleaning up

Do NOT touch or walk through this product. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas.

Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.

SECTION 7: Handling and storage

Precautions for safe handling

Use in well ventilated areas away from all ignition sources. In case of insufficient ventilation, wear suitable respiratory equipment. Wash hands and face thoroughly after working with material. Avoid contact with eyes, skin and clothing. Keep material away from sparks, flames and other ignition sources.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed and in a cool, well-ventilated place Keep away from sources of ignition. Protect from direct sunlight and moisture.

Corrosiveness: Corrosive to metals and natural rubber.

Storage Temperatures: Hygroscopic liquid. Store in dry, cool place. Store between 15 - 25 °C.

SECTION 8: Exposure controls/personal protection

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Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection: Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Colourless to yellowish liquid.
Color	No data available.
Odor	Almost odourless, slight ammoniacal.
Odor threshold	No data available.
Melting point/freezing point	2 - 2.5 °C
Boiling point or initial boiling point and boiling range	210 °C
Flammability	No data available.
Lower and upper explosion limit/flammability limit	Flammable Limits - Lower: 2.7 Vol% Flammable Limits - Upper: 19 Vol %
Flash point	154 °C
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	>180 °C
Oxidizing properties	No data available.
pH	pH 7.1 (2.3 % solution); pH 4 - 5 (200 g/l H ₂ O, 20 °C).
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble. Solubility in Organic Solvents: Soluble in ethanol.
Partition coefficient n-octanol/water (log value)	logP(o/w): -1.51

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Vapor pressure	0.13 kPa (70 °C)
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 1.13 g/cm ³
Relative vapor density	1.6
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Reacts with incompatible materials

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Corrosive to metals and natural rubber.

Conditions to avoid

Avoid storing in direct sunlight and avoid extremes of temperature.

Incompatible materials

Oxidising agents, acids, bases, iodine, pyridine, sulphur trioxide and water separating agents. Aluminium, iron, copper, natural rubber.

Hazardous decomposition products

May liberate toxic fumes in fire including carbon monoxide, hydrogen cyanide, ammonia and nitrogen oxides.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (Rat): 5,325 mg/kg

Acute Toxicity - Inhalation: LC50 (Rat) 21mg/l 4hr

Ingestion: Ingestion may cause abdominal pain. May result in liver and kidney damage.

Inhalation: Inhalation of product may cause drowsiness, headaches and nausea.

Skin corrosion/irritation

Acute Toxicity - Dermal: LD50 (Rat): >3,000 mg/kg

May cause skin irritation.

Serious eye damage/irritation

May cause irritation to the eyes.

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Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

Toxic to Reproduction: Category 1

H360 May damage fertility or the unborn child.

Summary of evaluation of the CMR properties

No data available.

Specific target organ toxicity (STOT) - single exposure

No data available.

Specific target organ toxicity (STOT) - repeated exposure

Specific target organ toxicity - Repeated Exposure, Oral Category 2, Blood

H373 May cause damage to organs (Blood) through prolonged or repeated exposure if swallowed.

Aspiration hazard

No data available.

Additional information

Chronic Effects: Repeated or prolonged exposure to the skin may cause eczema. Ingestion of larger amounts of product may lead to damage of the central nervous system, liver and kidneys.

SECTION 12: Ecological information

Toxicity

Acute Toxicity - Fish: LC50 (L.idus): 4600-9300 mg/l /96h

Acute Toxicity - Daphnia: EC50 (Daphnia magna): >500 mg/l /48h

Acute Toxicity - Bacteria: EC50 (bacteria): >10000 mg/l /17h

Persistence and degradability

Biochemical oxygen demand (BOD): 1.6%/6h

Biochemical oxygen demand (BOD): 4.7%/12h

Biochemical oxygen demand (BOD): 11.8%/24h

Bioaccumulative potential

Low probability of bioaccumulation (log P(o/w)<1)

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

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Sewage disposal

Low probability of bioaccumulation (log P(o/w)<1)

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

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Preparation information

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)