UN GHS REVISION 7

Safety Data Sheet
Formaldehyde ~37%

Version 1.0, Date of issue: 2026-08-28

SECTION 1: Identification

1.1 GHS Product identifier

Product name	Formaldehyde ~37%
Product number	F-500M/2.5L/5L/10L
Brand	Hurstchem

1.3 Recommended use of the chemical and restrictions on use

Laboratory reagent

1.4 Supplier's details

Name	Hurst Scientific
Address	2 Transit Place, 6112 Forrestdale WA, Australia
Telephone	1300 778 068
email	sales@hurstscientific.com.au

1.5 Emergency phone number

Australian Poisons Information Centre 13 11 26
Australian Emergency Services 000

SECTION 2: Hazard identification

General hazard statement

Classified as a Hazardous substance according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as Dangerous goods according to the ADG Code for the Transport of Dangerous Goods by Road and Rail (7th Edition).

2.1 Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Acute Toxicity (Oral), Cat. 3
- Acute Toxicity (Dermal), Cat. 3
- Acute Toxicity (Inhalation), Cat. 3
- Skin Corrosion/Irritation, Cat. 1
- Skin Sensitisation, Cat. 1
- Germ Cell Mutagenicity, Cat. 2
- Carcinogenicity, Cat. 1
- STOT – Single Exposure (respiratory irritation), Cat. 3
- STOT – Single Exposure, Cat. 2
- Hazardous to the Aquatic Environment (Acute), Cat. 2

2.2 GHS label elements, including precautionary statements

Pictograms

1. Corrosion; 2. Skull and crossbones; 3. Exclamation mark; 4. Health hazard

Signal word

Danger

Hazard statement(s)

H227	Combustible liquid.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H335	May cause respiratory irritation.
H371	May cause damage to organs.
H401	Toxic to aquatic life.

Precautionary statement(s)

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
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.
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.
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use appropriate extinguishing media for the surrounding fire.

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands thoroughly after handling.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P302+P352	IF ON SKIN: Wash with plenty of water.
P308+P311	IF exposed or concerned: Call a POISON CENTRE/doctor.
P321	Specific treatment (see supplemental first-aid instructions on this label).
P361+P364	Take off immediately all contaminated clothing. And wash it before reuse.
P362+P364	Take off contaminated clothing. And wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

No information available on PBT / vPvB status or endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Component	Concentration
Formaldehyde (CAS: 50-00-0)	**≥ 37 – < 40%**
CLASSIFICATIONS: Carcinogenicity, Cat. 1B; Germ Cell Mutagenicity, Cat. 2; Acute Toxicity (Inhalation), Cat. 2; Acute Toxicity (Oral), Cat. 3; Skin Corrosion/Irritation, Cat. 1B; Skin Sensitisation, Cat. 1A; Acute Toxicity (Dermal), Cat. 3; Hazardous to the Aquatic Environment (Acute), Cat. 2. **HAZARDS:** H350 - May cause cancer; H341 - Suspected of causing genetic defects; H330 - Fatal if inhaled; H301 - Toxic if swallowed; H314 - Causes severe skin burns and eye damage; H317 - May cause an allergic skin reaction; H311 - Toxic in contact with skin; H401 - Toxic to aquatic life.	
Methanol (CAS: 67-56-1)	**≥ 5 – < 10%**
CLASSIFICATIONS: Flammable Liquid, Cat. 2; Acute Toxicity (Inhalation), Cat. 3; Acute Toxicity (Dermal), Cat. 3; Acute Toxicity (Oral), Cat. 3; STOT – Single Exposure, Cat. 1. **HAZARDS:** H225 - Highly flammable liquid and vapour; H331 - Toxic if inhaled; H311 - Toxic in contact with skin; H301 - Toxic if swallowed; H370 - Causes damage to organs.	
Water (CAS: 7732-18-5)	**≥ 50 – < 58%**

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

Eye contact

Flush eyes with copious amounts of water for at least 15 minutes. Seek immediate medical attention.

Skin contact

Immediately remove all contaminated clothing, footwear and jewellery. Flush the affected area with copious amounts of water for at least 15 minutes. Seek immediate medical attention. Wash contaminated clothing before re-use.

Inhalation

Evacuate to fresh air immediately. If unconscious, place in recovery position and provide artificial respiration if breathing ceases. Seek medical attention.

Ingestion

DO NOT induce vomiting. Wash mouth out with copious amounts of water and seek medical attention.

First-aid facilities

Eye wash station, safety shower and First Aid kit.

4.2 Most important symptoms and effects, both acute and delayed

The most important symptoms and effects are described in Section 2 (hazard statements) and Section 11 (toxicological information).

4.3 Indication of immediate medical attention and special treatment needed

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

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Alcohol-resistant foam, dry chemical powder, carbon dioxide or water spray. Do not use water jets. Keep containers cool with water spray.

5.2 Specific hazards arising from the chemical

Vapour is heavier than air and may travel along the ground to distant ignition sources and flash back. Vapours may form explosive mixtures with air. Combustion may produce toxic and irritating gases, including oxides of carbon.

5.3 Special protective actions for fire-fighters

Fire fighters should wear self-contained breathing apparatus (SCBA) operated in positive-pressure mode and a chemical splash suit; a structural firefighter's uniform provides only limited protection against these materials. Fight the fire from a safe location. Use of water spray may be inefficient. If safe to do so, move containers from the fire area and cool them with flooding quantities of water until well after the fire is out. Prevent firefighting runoff from entering waterways, drains and sewers. Contain and collect fire-control water for later disposal.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid contact with skin and eyes. Wear suitable protective equipment (see Section 8). Evacuate non-essential personnel from the area. Remove all sources of ignition. Vapours may accumulate in low-lying areas and form explosive concentrations.

6.2 Environmental precautions

Prevent the spill from entering drains, sewers and waterways. In the event of a major spill, contain the material and notify the relevant authorities. This product is hazardous to the aquatic environment — prevent any release to the environment.

6.3 Methods and materials for containment and cleaning up

Contain the spill and prevent entry into drains, sewers and waterways. Absorb with inert absorbent material (e.g. sand, vermiculite or earth) and transfer to a suitable, labelled container for disposal. Rinse the affected area with water. Dispose of in accordance with Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Keep away from heat, sparks, open flame and other ignition sources — No smoking. Use flameproof electrical equipment and non-sparking tools. Bond and ground containers during transfer to prevent static discharge. Empty containers retain flammable residue — do not cut, weld or drill. Do not breathe mists or vapours. Wear appropriate protective clothing to avoid any contact.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area. Keep containers tightly closed and upright when not in use. Store away from incompatible materials (see Section 10). Inspect containers regularly for damage or leaks. Store in an area approved for flammable liquids (cabinet or purpose-built store), away from heat, ignition sources and direct sunlight; storage areas must be No Smoking. Vapour is heavier than air — beware accumulation in pits and confined spaces.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Formaldehyde (CAS: 50-00-0)
AU/SWA (AU): TWA: 1 ppm (1.2 mg/m³); STEL: 2 ppm (2.5 mg/m³); Notes: Carc. 2; Sen

Methanol (CAS: 67-56-1)
AU/SWA (AU): TWA: 200 ppm (262 mg/m³); STEL: 250 ppm (328 mg/m³); Notes: Sk

Water (CAS: 7732-18-5)
AU/SWA (AU): No occupational exposure limit established.

8.2 Appropriate engineering controls

Ensure an adequate ventilation or exhaust system is in place.

8.3 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 Standard 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

Use occupational protective gloves complying with AS 2161 (Selection, Use and Maintenance).

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapour/mist filter should be used. 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.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Clear or Coloured with Dye
Colour	No data available
Odour	Pungent
Odour threshold	No data available
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	96°C
Flammability	No data available
Lower and upper explosion limit/flammability limit	No data available
Flash point	60 °C
Explosive properties	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Oxidising properties	No data available
pH	2.5-4.0
Kinematic viscosity	No data available
Solubility	Water Soluble
Partition coefficient n-octanol/water (log value)	No data available
Vapour pressure	93.60 mm Hg @ 38 C (RAD)
Evaporation rate	No data available
Density and/or relative density	1.09g/cm³
Relative vapour density	No data available
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

10.1 Reactivity

Non-reactive under recommended conditions for use and storage.

10.2 Chemical stability

Stabilised with Methanol. May become cloudy on standing when cold (<20C).

10.3 Possibility of hazardous reactions

Undergoes non-hazardous self-polymerisation to form paraformaldehyde. (Methanol stabilisation reduces precipitation.) Will polymerise with active organic materials such as phenol.

10.4 Conditions to avoid

Avoid heat, sources of ignition, direct sunlight, moisture, static discharges and high temperatures.

10.5 Incompatible materials

Incompatible/reactive with strong oxidisers, alkalis and acids, phenols, urea, oxides, isocyanates, caustics, anhydrides.

10.6 Hazardous decomposition products

Heating may cause decomposition leading to violent rupture of containers. May emit flammable vapour if involved in fire. At elevated temperatures, oxidation of formaldehyde produces formic acid. Decomposition products may include toxic fumes of carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Toxic if swallowed; Toxic in contact with skin; Toxic if inhaled; Oral LD_{50}: 100 mg/kg; Dermal LD_{50}: 270 uL/kg (rabbit, LD50 skin) (Formaldehyde); 203 mg/m3 (rat, LC50 inhalation) (Formaldehyde)

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Suspected of causing genetic defects.

Carcinogenicity

Carcinogenic to humans

Reproductive toxicity

Not considered to be toxic to reproduction.

Specific target organ toxicity (STOT) - single exposure

May cause damage to organs.

Specific target organ toxicity (STOT) - repeated exposure

Not expected to cause toxicity to a specific target organ through repeated exposure.

Aspiration hazard

Not expected to be an aspiration hazard.

SECTION 12: Ecological information

Toxicity

FORMALDEHYDE: Harmful to aquatic organisms. Avoid release to the environment. Formaldehyde: - LC50, Fish (Morone saxatilis): 6.18 mg/L (96 h). EC50, Crustacea (Daphnia pulex): 5.8 mg/L (48 h). EC50, Algae (freshwater): 5.67 mg/L (72 h) growth rate

Persistence and degradability

Substance is readily biodegradable (Formaldehyde). Methanol is readily degradable

Bioaccumulative potential

Not expected to bio-accumulate

Mobility in soil

No data available

Results of PBT and vPvB assessment

No data available

Endocrine disrupting properties

No data available

Other adverse effects

No data available

SECTION 13: Disposal considerations

Product disposal

Dispose of in accordance with local authority guidelines. Empty containers may still represent a hazard.

Packaging disposal

Dispose of in accordance with local authority guidelines. Empty containers may retain product residue and vapour. Do not cut, weld, braze, solder, drill or reuse containers.

Waste treatment

Dispose of in accordance with local authority guidelines.

Sewage disposal

Do not contaminate drains and waterways.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers. Empty containers retain liquid and/or vapour residue and are not to be pressure cut, welded, brazed, soldered, drilled or exposed to heat, flame, sparks, electricity or any other source of ignition. Rinse containers thoroughly with cold water when empty.

SECTION 14: Transport information

ADG (Australian Dangerous Goods Code, 7th Edition)

UN Number	UN2209
Proper shipping name	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde
Transport hazard class	8
Packing group	III
Hazchem code	●2X
Environmental hazards	Not classified

IMDG (International Maritime Dangerous Goods Code)

UN Number	UN2209
Proper shipping name	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde
Transport hazard class	8
Packing group	III
Marine pollutant	No

IATA (International Air Transport Association Dangerous Goods Regulations)

UN Number	UN2209
Proper shipping name	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde
Transport hazard class	8
Packing group	III

SECTION 15: Regulatory information

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

Formaldehyde (CAS: 50-00-0)

Australia SUSMP — Poison Schedule: Schedule 6

Methanol (CAS: 67-56-1)

Australia SUSMP — Poison Schedule: Schedule 5

Water (CAS: 7732-18-5)

Australia SUSMP — Poison Schedule: Not Scheduled (NS)

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this product.

SECTION 16: Other information

16.1 Further information/disclaimer

References

1. Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, (June 2023).
2. Safe Work Australia, National Code of Practice for the Labelling of Workplace Hazardous Chemicals (2015).
3. Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants (2013).
4. National Transport Commission Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code), Volume 1, Edition 7.9 (2023).
5. Standards Australia, Dangerous Goods Initial Emergency Response Guide: Australian Handbook (SAA/SNZ HB76); Homebush (2004).

16.2 Preparation information

This SDS is prepared in accordance with the Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, (June 2023). The information contained within is believed to be accurate at the date of preparation/review. Hurst Scientific makes no claims of the accuracy or completeness of the information and excludes all liability for any loss or damage related to the supply or use of the information in this safety data sheet. It is recommended the user make their own determinations as to the suitability of the information provided to the application in which the product is to be used. Copyright © 2026 Hurst Scientific