
1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name **FORMALDEHYDE 37/7**
Synonyms **FORMALDEHYDE SOLUTION WITH NOT LESS THAN 25% FORMALDEHYDE**

1.2 Uses and uses advised against

Uses **INDUSTRIAL APPLICATIONS • SPECIALTY CHEMICAL • SURFACE FINISHING**

1.3 Details of the supplier of the product

Supplier name **DUBOIS CHEMICALS AUSTRALIA PTY LIMITED**
Address **305 Frankston Dandenong Rd, Dandenong South, VIC, 3175, AUSTRALIA**
Telephone **(03) 9768 3860**
Email **sales@duboischemicals.com.au**
Website **<http://duboischemicals.com.au/>**

1.4 Emergency telephone numbers

Emergency **13 11 26 (Poisons Information Centre)**

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

Physical Hazards

Flammable Liquids: Category 4
Corrosive to Metals: Category 1

Health Hazards

Acute Toxicity: Oral: Category 3
Acute Toxicity: Skin: Category 3
Skin Corrosion/Irritation: Category 1B
Skin Sensitisation: Category 1
Serious Eye Damage / Eye Irritation: Category 1
Acute Toxicity: Inhalation: Category 2
Carcinogenicity: Category 1B
Specific Target Organ Toxicity (Single Exposure): Category 1

Environmental Hazards

Aquatic Toxicity (Acute): Category 2

2.2 GHS Label elements

Signal word **DANGER**

Pictograms

PRODUCT NAME FORMALDEHYDE 37/7**Hazard statements**

H227	Combustible liquid.
H290	May be corrosive to metals.
H301	Toxic 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.
H330	Fatal if inhaled.
H350	May cause cancer.
H370	Causes damage to organs.
H401	Toxic to aquatic life.

Prevention statements

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234	Keep only in original packaging.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash 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.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284	Wear respiratory protection.

Response statements

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/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep 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 + P311	IF exposed or concerned: Call a POISON CENTRE or doctor/physician.
P310	Immediately call a POISON CENTRE or doctor/physician.
P320	Specific treatment is urgent - see first aid instructions.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use appropriate media to extinguish.
P390	Absorb spillage to prevent material damage.

Storage statements

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P233 + P235	Store in a well-ventilated place. Keep cool. Keep container tightly closed.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.

Disposal statements

P501	Dispose of contents/container in accordance with relevant regulations.
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2.3 Other hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
FORMALDEHYDE	50-00-0	200-001-8	30 to 40%
METHANOL	67-56-1	200-659-6	1 to 10%
FORMIC ACID	64-18-6	200-579-1	<1%
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	Remainder

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. To protect rescuer, use a Formaldehyde-Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
Ingestion	For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
First aid facilities	Eye wash facilities and safety shower should be available.

4.2 Most important symptoms and effects, both acute and delayed

Formaldehyde is classified as a confirmed human carcinogen (IARC Group 1). May cause an allergic skin reaction. Acute high level exposure to methanol may lead to visual disturbances, such as blurred or dimness of vision, leading to blindness.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Dry agent, carbon dioxide, foam or water fog. Prevent contamination of drains or waterways.

5.2 Special hazards arising from the substance or mixture

Combustible. May evolve toxic gases (carbon oxides, formaldehyde, hydrocarbons) when heated to decomposition.

5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code

- 2X
- 2 Alcohol Resistant Foam is the preferred firefighting medium but, if it is not available, fine water spray can be used.
- X Wear liquid-tight chemical protective clothing and breathing apparatus. Contain spill and run-off.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

PRODUCT NAME **FORMALDEHYDE 37/7**

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from direct sunlight, incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate ventilation systems.

7.3 Specific end uses

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Formaldehyde	SWA [AUS]	1	1.2	2	2.5
Formaldehyde	SWA [Proposed]	0.1	0.12	0.3	0.37
Formic acid	SWA [AUS]	5	9.4	10	19
Methanol	SWA [AUS]	200	262	250	328

Biological limits

Ingredient	Determinant	Sampling Time	BEI
METHANOL	Methanol in urine	End of shift	15 mg/L

Reference: ACGIH Biological Exposure Indices

8.2 Exposure controls

Engineering controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE

- Eye / Face** Wear splash-proof goggles.
- Hands** Wear butyl or nitrile gloves.
- Body** Wear coveralls.
- Respiratory** Wear a Formaldehyde respirator. At high vapour levels, wear an Air-line respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	CLEAR LIQUID
Odour	PUNGENT ODOUR
Flammability	CLASS C1 COMBUSTIBLE
Flash point	85°C
Boiling point	< 100°C
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	2.4 to 4.0
Vapour density	1.08 (Air = 1)
Relative density	1.11 (Approximately)

9.1 Information on basic physical and chemical properties

Solubility (water)	SOLUBLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	73 % (Formaldehyde)
Lower explosion limit	7 % (Formaldehyde)
Partition coefficient	NOT AVAILABLE
Autoignition temperature	430°C
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

10. STABILITY AND REACTIVITY

10.1 Reactivity

May be corrosive to metals.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization is not expected to occur.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), amines, phenols, urea and heat sources.

10.6 Hazardous decomposition products

May evolve toxic gases (carbon oxides, formaldehyde, hydrocarbons) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity Fatal if inhaled. Toxic if swallowed or in contact with skin. Ingestion may result in burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Information available for the ingredients:

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
FORMALDEHYDE	260 mg/kg (guinea pig) [AICIS]	270 mg/kg (rabbit) [AICIS]	0.497 mg/kg/4 hours (mouse) [AICIS]
METHANOL	300 mg/kg (human)	15,800 mg/kg (rabbit)	50 g/m ³ /2 hours (mouse)
FORMIC ACID	700 mg/kg (mouse)	--	6200 mg/m ³ /15 min. (mouse)

Skin Contact may result in irritation, redness, pain, rash, dermatitis and possible burns.

Eye Contact may result in irritation, lacrimation, pain, redness and possible burns.

Sensitisation Formaldehyde may cause an allergic skin reaction. Not classified as a respiratory sensitiser.

Mutagenicity Insufficient data available to classify as a mutagen.

Carcinogenicity Formaldehyde is classified as a confirmed human carcinogen (IARC Group 1). Occupational studies have noted statistically significant associations between exposure to formaldehyde and increased incidence of lung and nasopharyngeal cancer. This evidence is considered to be "limited," rather than "sufficient," due to possible exposure to other agents that may have contributed to the excess cancers. Animal studies have reported an increased incidence of nasal squamous cell carcinomas by inhalation exposure (Source: EPA, USA).

PRODUCT NAME FORMALDEHYDE 37/7**Reproductive** Insufficient data available to classify as a reproductive toxin.**STOT - single exposure** Over exposure may result in irritation of the nose and throat, with coughing, drowsiness and dizziness. Acute high level exposure to methanol may lead to visual disturbances, such as blurred or dimness of vision, leading to blindness.**STOT - repeated exposure** Not classified as causing organ damage from repeated exposure. However, repeated exposure to low levels of formaldehyde may cause damage to the upper airways, including nasal passages, and result in gastrointestinal, musculoskeletal and cardiovascular problems. Damage to the optic nerves may occur with repeated exposure to methanol, causing visual problems and possible blindness.**Aspiration** Not classified as causing aspiration.**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

Toxic to aquatic life.

12.2 Persistence and degradability

No information provided.

12.3 Bioaccumulative potential

No information provided.

12.4 Mobility in soil

No information provided.

12.5 Other adverse effects

Formaldehyde is removed from the atmosphere by direct photolysis and oxidation by photochemically produced hydroxyl radicals (half-life of a few hours). Additional quantities are removed by dry deposition, rain or by dissolving in the ocean and other surface waters. If released to water biodegradation takes place in a few days. Toxic to fish and aquatic microorganisms.

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Waste disposal** For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site or burn in an open pit or incinerator. Alternatively, dissolve in a flammable solvent (e.g. acetone) and spray into an incinerator equipped with an afterburner. Contact the manufacturer/supplier for additional information (if required). Prevent contamination of drains and waterways as aquatic life may be threatened.**Legislation** Dispose of in accordance with relevant local legislation.**14. TRANSPORT INFORMATION****CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	2209	2209	2209
14.2 Proper Shipping Name	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde
14.3 Transport hazard class	8	8	8
14.4 Packing Group	II	II	II

14.5 Environmental hazards

Not a Marine Pollutant.

14.6 Special precautions for user

Hazchem code	●2X
GTEPG	8A1
Specific EPG	8.0.009
EmS	F-A, S-B

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule	Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Classifications	Safe Work Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).
Inventory listings	AUSTRALIA: AIIC (Australian Inventory of Industrial Chemicals) All components are listed on AIIC, or are exempt.

16. OTHER INFORMATION

Additional information **RESPIRATORS:** In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PRODUCT NAME FORMALDEHYDE 37/7**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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