HYDRANAL™Composite 5

34805-500ML

Version 1.5 5 | Revision Date 03/15/2022 | Print Date 04/13/2025

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	HYDRANAL™Composite 5
SDS Number	:	000000020610
Product Use Description	:	Laboratory chemicals
Manufacturer or supplier's details	:	CHEMSUPPLY AUSTRALIA PTY LTD 38-50 Bedford St. Gillman SA 5013, Australia
For more information call	:	+61 8 8440 2000 (Monday-Friday, 9:00am-5:00pm)
In case of emergency call	:	**Medical: 1-800-498-5701 or +1-303-389-1414**
	:	**Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**
	:	**CHEMTREC in Australia: +(61)-290372994**
	:	(24 hours/day, 7 days/week)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification of the substance or mixture	:	Carcinogenicity, Category 2 Toxic to reproduction, Category 1B Specific target organ toxicity - repeated exposure, Category 1

GHS Label elements, including precautionary statements

Symbol(s) :

Signal word	:	Danger
Hazard statements	:	Suspected of causing cancer. May damage fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

Precautionary statements : **Prevention:**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use personal protective equipment as required.

Response:
IF exposed or concerned: Get medical advice/ attention.

Storage:
Store locked up.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration
2-(2-Ethoxyethoxy)ethanol	111-90-0	> 65 - < 75%
Iodine	7553-56-2	>= 5 - < 10%
Imidazole	288-32-4	>= 5 - < 10%
Sulphur dioxide	7446-09-5	>= 5 - < 10%
1H-Imidazole monohydriodide	68007-08-9	>= 5 - < 10%
2-Methylimidazole	693-98-1	>= 5 - < 10%

4. FIRST AID MEASURES

General advice	:	First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.
Inhalation	:	Move to fresh air. Keep patient warm and at rest. Call a physician immediately.
Skin contact	:	Wash off immediately with plenty of water. If skin irritation persists, call a physician.
Eye contact	:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Protect unharmed eye.
Ingestion	:	When swallowed, allow water to be drunk. Do NOT induce vomiting. Call a physician immediately.
Notes to physician	:	Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray Foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media	:	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards during firefighting	:	Fire may cause evolution of: Carbon monoxide Carbon dioxide (CO2) Sulphur oxides Nitrogen oxides (NOx)
Special protective equipment for firefighters	:	Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
Further information	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Evacuate personnel to safe areas. Wear personal protective equipment. Unprotected persons must be kept away. Ensure adequate ventilation. Remove all sources of ignition.
Environmental precautions	:	Should not be released into the environment.
Methods for cleaning up	:	Ventilate the area. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Handling

Advice on safe handling	:	Wear personal protective equipment. Use only in well-ventilated areas.
Advice on protection against fire and explosion	:	Keep away from sources of ignition - No smoking. Normal measures for preventive fire protection.

Storage

Requirements for storage areas and containers	:	Keep only in the original container, tightly closed, in a well ventilated place. Store at room temperature. (Ambient temperature: > 0 < 35°C) Protect from atmospheric moisture and water. Do not store for longer periods (not > 1 month) at temperatures above 25°C. Higher temperature leads to an accelerated decrease in titer.
Materials to avoid	:	Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Sulphur	7446-09-	TWA : Time	2 ppm	12 2011	AU NOEL: Australia.

dioxide	5	Weighted Average (TWA):	5.2 mg/m3		National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A), as amended
		STEL : Short Term Exposure Limit (STEL):	5 ppm 13 mg/m3	12 2011	AU NOEL: Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A), as amended

Engineering measures

Use with local exhaust ventilation.
Prevent vapour buildup by providing adequate ventilation during and after use.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection : Wear nitrile rubber gloves to avoid contact with the skin.
Gloves must be inspected prior to use.
Replace when worn.

Eye protection : Safety goggles

Skin and body protection : Protective suit

Hygiene measures : Take off all contaminated clothing immediately.
Remove and wash contaminated clothing before re-use.
Wash hands before breaks and at the end of workday.
When using do not eat or drink.

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Avoid exposure - obtain special instructions before use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Colour	:	brown
Odour	:	characteristic
pH	:	4.5 - 5.5 at , 20 °C
Melting point/range	:	Note: No data available
Boiling point/boiling range	:	194 °C at 1,013 hPa
Flash point	:	210 °F (99 °C)
Evaporation rate	:	Note: No data available
Flammability	:	Not applicable
Lower explosion limit	:	Note: No data available
Upper explosion limit	:	Note: No data available
Vapour pressure	:	Note: No data available
Vapour density	:	Note: No data available
Density	:	ca. 1.17 g/cm3 at 25 °C
Water solubility	:	Note: completely miscible
Partition coefficient: n-octanol/water	:	Note: No data available
Ignition temperature	:	Note: No data available
Decomposition temperature	:	Note: No decomposition if used as directed.

Viscosity, dynamic	:	Note: No data available
Viscosity, kinematic	:	Note: No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

10. STABILITY AND REACTIVITY

Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerisation does not occur.
Conditions to avoid	:	Protect from atmospheric moisture and water. Heat, flames and sparks.
Incompatible materials to avoid	:	Strong oxidizing agents
Hazardous decomposition products	:	In case of fire hazardous decomposition products may be produced such as: Carbon monoxide Carbon dioxide (CO2) Sulphur oxides Nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	LD50: > 2,000 mg/kg Species: Rat Method: OECD 423
Acute inhalation toxicity	:	Note: No data available
Acute dermal toxicity	:	LD50: > 2,000 mg/kg Species: Rat Method: OECD Test Guideline 402
Skin irritation	:	Species: Rabbit Result: No skin irritation Method: OECD Test Guideline 404

Eye irritation	:	Species: Rabbit Result: No eye irritation Method: OECD Test Guideline 405
Sensitisation		
2-(2-Ethoxyethoxy)ethanol	:	Species: Guinea pig Classification: non-sensitizing
1H-Imidazole monohydriodide	:	Mouse local lymph node assay Species: Mouse Result: Does not cause skin sensitisation. Method: OECD 429
2-Methylimidazole	:	Mouse local lymph node assay Species: Mouse Result: Did not cause sensitisation on laboratory animals. Method: OECD Test Guideline 429
Repeated dose toxicity		
1H-Imidazole monohydriodide	:	Species: Rat Application Route: Ingestion Exposure time: (28 d) NOEL: 50 mg/kg/d Method: Repeated dose (28 days) toxicity (oral)
Genotoxicity in vitro	:	Test Method: Ames test Result: negative
Genotoxicity in vivo		
2-(2-Ethoxyethoxy)ethanol	:	Species: Rat, male Cell type: Liver cells Application Route: Oral Method: OECD Test Guideline 486 Result: negative
	:	Test Method: Chromosome aberration test Species: Mouse, male Cell type: Bone marrow Application Route: Intraperitoneal injection Method: OECD Test Guideline 474 Result: negative
Imidazole	:	Test Method: Micronucleus test Species: Mouse, male and female

Cell type: Bone marrow
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative

Teratogenicity
Imidazole : Species: RatApplication Route: Oral

No observed adverse effect level: 60 mg/kg body weight
No observed adverse effect level: 60 mg/kg body weight
Method: OECD Test Guideline 414
Result: Embryotoxic effects and adverse effects on the offspring were detected.

2-Methylimidazole : Species: RatApplication Route: Oral

No observed adverse effect level: >50 mg/kg body weight
No observed adverse effect level: 2 mg/kg body weight
Method: OECD Test Guideline 414
Result: Embryotoxic effects and adverse effects on the offspring were detected.

Further information : Note: Causes damage to organs through prolonged or repeated exposure (Thyroid).

12. Ecological information

Toxicity to fish
2-(2-Ethoxyethoxy)ethanol : flow-through test
LC50: 6,010 mg/l
Exposure time: 96 h
Species: Ictalurus punctatus (channel catfish)
Method: OECD Test Guideline 203

Iodine : LC50: 1.67 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)

Imidazole : static test
LC50: 283.6 mg/l
Exposure time: 48 h

Species: Leuciscus idus (Golden orfe)

1H-Imidazole monohydriodide	:	LC0: >= 100 mg/l Exposure time: 96 h Species: Danio rerio (zebra fish) Method: OECD Test Guideline 203
2-Methylimidazole	:	static test LC50: 190 mg/l Exposure time: 96 h Species: Leuciscus idus (Golden orfe) Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates

2-(2-Ethoxyethoxy)ethanol	:	static test LC50: 1,982 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202
Iodine	:	LC50: 0.55 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)
Imidazole	:	static test EC50: 341.5 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: Directive 67/548/EEC, Annex V, C.2.
1H-Imidazole monohydriodide	:	EC50: 1.4 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202 EC0: 0.46 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202
2-Methylimidazole	:	static test EC50: 225.31 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae

Iodine	:	Growth inhibition EC50: 0.13 mg/l Exposure time: 72 h Species: Desmodesmus subspicatus (green algae) Method: OECD Test Guideline 201
Imidazole	:	static test EC50: 133 mg/l Exposure time: 72 h Species: Desmodesmus subspicatus (green algae) Method: DIN 38412
1H-Imidazole monohydriodide	:	Biomass EC50: 8.3 mg/l Exposure time: 72 h Species: scenedesmus subspicatus Method: OECD Test Guideline 201 Growth rate EC50: 34 mg/l Exposure time: 72 h Species: scenedesmus subspicatus Method: OECD Test Guideline 201 Biomass NOEC: 1 mg/l Exposure time: 72 h Species: scenedesmus subspicatus Method: OECD Test Guideline 201 Biomass NOEC: 1 mg/l Exposure time: 72 h Species: scenedesmus subspicatus Method: OECD Test Guideline 201
2-Methylimidazole	:	static test EC50: 256.3 mg/l Exposure time: 72 h Species: Desmodesmus subspicatus (green algae) Method: DIN 38412 static test EC50: 189 mg/l Exposure time: 72 h Species: Desmodesmus subspicatus (green algae) Method: DIN 38412

Toxicity to bacteria

1H-Imidazole monohydriodide	:	Respiration inhibition EC50: > 1,000 mg/l Exposure time: 3 h Species: activated sludge Method: OECD 209 Respiration inhibition NOEC: 320 mg/l Exposure time: 3 h Species: activated sludge Method: OECD 209

Persistence and degradability

Biodegradability	:	Result: Readily biodegradable. Value: 78 % Method: OECD 302 B

Additional ecological information

Iodine	:	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product	:	In accordance with local and national regulations.

14. TRANSPORT INFORMATION

ADR
Not dangerous goods

ADG_ROAD
Not dangerous goods

IATA
Not dangerous goods

IMDG
Not dangerous goods

RID
Not dangerous goods

15. REGULATORY INFORMATION

National regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons	:	Schedule 6

Other international regulations

Notification status

US. Toxic Substances Control Act	:	All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.
Australia. Industrial Chemicals Act (AIIC), as amended	:	On the inventory, or in compliance with the inventory
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	:	Not in compliance with the inventory
Japan. Kashin-Hou Law List	:	Not in compliance with the inventory
Korea. Existing Chemicals Inventory (KECI)	:	Not in compliance with the inventory
Philippines. Inventory of Chemicals and Chemical Substances (PICCS)	:	Not in compliance with the inventory
China. Inventory of Existing Chemical Substances (IECSC)	:	On the inventory, or in compliance with the inventory
New Zealand. Inventory of Chemicals (NZIoC), as	:	Not in compliance with the inventory

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Note : Note: Because of the potential specific inventory listing of components of this product line, further, more detailed information can be requested from SafetyDataSheet@Honeywell.com.

16. OTHER INFORMATION

Sources of key data used to compile the Safety Data Sheet:

1. National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]
2. Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]
3. List of Designated Hazardous Substances [NOHSC:10005(1999)]
4. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]
5. Australian Dangerous Goods Code, No. 6 [National Road Transport Commission]
6. Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP), No. 19 [NDPSC: 2004]
7. National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]

Further information

The information provided in this 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.

Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Prepared by:
Honeywell Performance Materials and Technologies Product Stewardship Group

End of Safety Data Sheet