HYDRANAL™Composite 5

34805-1L

Version 1.11 Revision Date 03.01.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	:	HYDRANAL™Composite 5
SDS-number	:	000000020610
Type of product	:	Mixture
Remarks	:	SDS according to Art. 31 of Regulation (EC) 1907/2006.

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

Use of the Substance/Mixture	:	Laboratory chemicals
Uses advised against	:	none

1.3. Details of the supplier of the safety data sheet

Company	:	Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
Telephone	:		
For further information, please contact:	:	SafetyDataSheet@Honeywell.com	

1.4. Emergency telephone number

Emergency telephone number	:	+1-703-527-3887 (ChemTrec-Transport) +1-303-389-1414 (Medical)
	:	Poison Control Center: United Kingdom: (+44) 844 892 0111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Carcinogenicity Category 2
H351 Suspected of causing cancer.
Reproductive toxicity Category 1B
H360Df May damage the unborn child. Suspected of damaging fertility.
Specific target organ toxicity - repeated exposure Category 2
H373 May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms	:		
Signal word	:	Danger	
Hazard statements	:	H351	Suspected of causing cancer.
		H360D	May damage the unborn child.
		H373	May cause damage to organs through prolonged or repeated exposure if inhaled (Liver)
Precautionary statements	:	P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
		P280	Wear protective gloves/protective clothing/eye protection/face protection.
		P284	In case of inadequate ventilation wear respiratory protection.
		P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Hazardous components which must be listed on the label	:	iodine imidazole 2-methylimidazole	
Special labelling of certain products:	:	Restricted to professional users.	

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
2-(2-Ethoxyethoxy)ethanol	111-90-0 203-919-7		> 65 % - < 75 %	N.C.*
sulphur dioxide	7446-09-5 016-011-00-9 231-195-2	Press. Gas Liquefied gas; H280 Acute Tox. 3; H331; Inhalation Skin Corr. 1B; H314	>= 5 % - < 10 %	
1H-Imidazole monohydriodide	68007-08-9 460-240-0	Acute Tox. 4; H302; Oral Repr. 1B; H360D	>= 5 % - < 10 %	
iodine	7553-56-2 053-001-00-3 231-442-4	Acute Tox. 4; H302; Oral Acute Tox. 4; H332; Inhalation Acute Tox. 4; H312; Dermal Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335; Respiratory system	>= 5 % - < 10 %	

		STOT RE 1; H372 Aquatic Acute 1; H400		
imidazole	288-32-4 613-319-00-0 206-019-2	Acute Tox. 4; H302; Oral Skin Corr. 1C; H314 Eye Dam. 1; H318 Repr. 1B; H360D	>= 5 % - < 10 %	
2-methylimidazole	693-98-1 613-330-00-0 211-765-7	Acute Tox. 4; H302; Oral Skin Corr. 1C; H314 Eye Dam. 1; H318 Carc. 2; H351 Repr. 1B; H360Df	>= 5 % - < 10 %	

N.C.* - Non-hazardous substance - for information only

Remaining components of this product are non-hazardous and/or are present at concentrations below reportable limits.

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of 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.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms. :

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water spray
Foam
Carbon dioxide (CO2)
Dry powder

Extinguishing media which shall not be used for safety reasons:
Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire may cause evolution of:
Carbon monoxide
Carbon dioxide (CO2)
Sulphur oxides
Nitrogen oxides (NOx)

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Wear personal protective equipment. Unprotected persons must be kept away. Ensure adequate ventilation. Remove all sources of ignition.

6.2. Environmental precautions

Should not be released into the environment.

6.3. Methods and materials for containment and 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).

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe 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.

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.

7.2. Conditions for safe storage, including any incompatibilities

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.

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
iodine	EH40 WEL			Listed
iodine	EH40 WEL STEL	1,1 mg/m3 0,1 ppm		

EH40 WEL - UK. EH40 Workplace Exposure Limits (WELs), as amended
-
EH40 WEL - UK. EH40 Workplace Exposure Limits (WELs), as amended
STEL - Short term exposure limit

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
sulphur dioxide	Workers / Long-term local effects		1,3 mg/m3	Inhalation	
sulphur dioxide	Workers / Acute local effects		2,7 mg/m3	Inhalation	
sulphur dioxide	Consumers / Long-term local effects		0,53 mg/m3	Inhalation	
iodine	Workers / Long-term systemic effects		0,07 mg/m3	Inhalation	
iodine	Workers / Long-term systemic effects		0,01mg/kg bw/d	Skin contact	

imidazole	Workers / Long-term systemic effects		10,6 mg/m3	Inhalation	
imidazole	Workers / Long-term systemic effects		1,5mg/kg bw/d	Skin contact	

Component	Environmental compartment / Value	Remarks
sulphur dioxide	:	No data available
1H-Imidazole monohydriodide	Fresh water: 0,0014 mg/l	Assessment factor: 1000
1H-Imidazole monohydriodide	Marine water: 0,00014 mg/l	Assessment factor: 1000
1H-Imidazole monohydriodide	Fresh water sediment: 0,0076 mg/kg dw	
1H-Imidazole monohydriodide	Marine sediment: 0,00076 mg/kg dw	
1H-Imidazole monohydriodide	Sewage treatment plant: 32 mg/l	Assessment factor: 10
1H-Imidazole monohydriodide	Soil: 0,0007 mg/kg dw	
iodine	Fresh water sediment: 0,01813 mg/l	
iodine	Marine water: 0,06001 mg/l	
iodine	Sewage treatment plant: 11 mg/l	Assessment factor: 10
iodine	Fresh water sediment: 3,99 mg/kg dw	
iodine	Marine sediment: 20,22 mg/kg dw	
iodine	Soil: 5,95 mg/kg dw	
imidazole	Fresh water: 0,13 mg/l	Assessment factor: 1000

imidazole	Marine sediment: 0,034 mg/l	Assessment factor: 10000
imidazole	Sewage treatment plant: 10 mg/l	Assessment factor: 100
imidazole	Fresh water sediment: 0,336 mg/kg dw	
imidazole	Marine sediment: 0,034 mg/kg dw	
imidazole	Soil: 0,0425 mg/kg dw	

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.
Do not breathe vapours or spray mist.

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

Personal protective equipment
Respiratory protection:
Recommended Filter type:
ABEK
In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection:
Glove material: Nitrile rubber
Break through time: > 480 min
Glove thickness: 0,4 mm
Camatril® 730
Gloves must be inspected prior to use.
Replace when worn.

Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.
Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.
Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer reccomends to use the chemical protective glove in practice not longer than 50% of the recomended permeation time.
Manufacturer´s directions for use should be observed because of great diversity of types .
Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:
Safety goggles

Skin and body protection:
Protective suit

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

(a) Physical state	:	liquid
(b) Colour	:	brown
(c) Odour	:	characteristic
(d) Melting point/freezing point	:	No data available
(e) Boiling point/boiling range	:	194 °C at 1.013 hPa
(f) Flammability	:	Not applicable
(g) Lower and upper explosion limit	:	Lower explosion limit No data available

	:	Upper explosion limit No data available
(h) Flash point	:	99 °C
(i) Auto-ignition temperature	:	No data available
(j) Decomposition temperature	:	No decomposition if used as directed.
(k) pH	:	4,5 - 5,5 at 20 °C
(l) Viscosity, kinematic	:	No data available
(m) Solubility(ies)	:	Water solubility: completely miscible
(n) Partition coefficient: n-octanol/water	:	No data available
(o) Vapour pressure	:	No data available
(p) Density and / or relative density	:	ca. 1,17 g/cm3 at 25 °C
(q) Relative vapour density	:	No data available
(r) Particle characteristics	:	No data available

9.2 Other Information

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

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Protect from atmospheric moisture and water.
Heat, flames and sparks.

10.5. Incompatible materials

Strong oxidizing agents

10.6. 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)

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

(a) Acute toxicity

Acute oral toxicity:
LD50
Species: Rat
Value: > 2.000 mg/kg
Method: OECD 423

Acute dermal toxicity:
LD50
Species: Rat
Value: > 2.000 mg/kg
Method: OECD Test Guideline 402

Acute inhalation toxicity:
No data available

Acute toxicity estimate
Value: > 5 mg/l
Exposure time: 4 h
Method: Calculation method

Acute toxicity (other routes of administration):
No data available

(b) Skin corrosion/irritation:
Species: Rabbit
Result: No skin irritation
Method: OECD Test Guideline 404

(c) Serious eye damage/eye irritation:
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

(d) Respiratory or skin sensitisation:
No data available

(e) Germ cell mutagenicity:
Test Method: Ames test
Result: negative

(f) Carcinogenicity:
Note: The product has not been tested. The information is derived from the properties of the individual components.

(g) Reproductive toxicity:
Note: The product has not been tested. The information is derived from the properties of the individual components.

(h) STOT-single exposure:

Remarks: No data available

(i) STOT - repeated exposure:
Note: The product has not been tested. The information is derived from the properties of the individual components.

(j) Aspiration hazard:
No data available

11.2. Information on other hazards

Endocrine disrupting properties
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:
No data available

Toxicity to aquatic plants:
No data available

Toxicity to aquatic invertebrates:
No data available

12.2. Persistence and degradability

Biodegradability:
Biodegradation: 78 %
Exposure time: 14 d
Result: Readily biodegradable.
Method: OECD 302 B

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:
Dispose according to legal requirements.

Packaging:
Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:
Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006
For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

14.2 UN proper shipping name

ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

14.3 Transport hazard class(es)
No data available

14.4 Packaging group
No data available

14.5 Environmental hazards
ADR/RID: no Marine pollutant: no

14.6 Special precautions for user
No data available

14.7 Maritime transport in bulk according to IMO instruments
No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Directive 2012/18/EC		Not applicable
Substances of very high concern (SVHC)		This product does contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w).
Regulation (EC) No. 1907/2006, Annex XIV		Not listed
Regulation (EC) No. 1907/2006, Annex XVII		Not listed

VOC:
Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control), 69 %

Other inventory information

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. Inventory of Industrial Chemicals (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 published by ERMA New Zealand
Not in compliance with the inventory

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.

Taiwan Chemical Substance Inventory (TCSI)
Not in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

sulphur dioxide	:	H280	Contains gas under pressure; may explode if heated.
		H331	Toxic if inhaled.
		H314	Causes severe skin burns and eye damage.
1H-Imidazole monohydriodide	:	H302	Harmful if swallowed.
		H360D	May damage the unborn child.
iodine	:	H302	Harmful if swallowed.
		H332	Harmful if inhaled.
		H312	Harmful in contact with skin.
		H315	Causes skin irritation.
		H319	Causes serious eye irritation.
		H335	May cause respiratory irritation.
		H372	Causes damage to organs through prolonged or repeated exposure.
		H400	Very toxic to aquatic life.
imidazole	:	H302	Harmful if swallowed.
		H314	Causes severe skin burns and eye damage.
		H318	Causes serious eye damage.
		H360D	May damage the unborn child.
2-methylimidazole	:	H302	Harmful if swallowed.
		H314	Causes severe skin burns and eye damage.
		H318	Causes serious eye damage.
		H351	Suspected of causing cancer.
		H360Df	May damage the unborn child. Suspected of damaging fertility.

Further information

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All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:
EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level
PNEC Predicted no effect level
vPvB Very persistent and very biaccumulative substance
PBT Persistent, bioaccmulative und toxic substance

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.
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