

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

Honeywell
Fluka™

HYDRANAL™ Composite 1

34827-1L

Version 1.7

Revision Date 03.01.2024

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
H360Df

H373

Suspected of causing cancer.
May damage the unborn child.
Suspected of damaging fertility.
May cause damage to organs through
prolonged or repeated exposure.

Precautionary statements

:

P260

P280

P284

P308 + P313

Do not breathe dust/ fume/ gas/ mist/
vapours/ spray.
Wear protective gloves/protective
clothing/eye protection/face protection.
In case of inadequate ventilation wear
respiratory protection.
IF exposed or concerned: Get medical
advice/ attention.

Hazardous components
which must be listed on the
label

:

imidazole
2-methylimidazole
iodine

Special labelling of certain
products:

:

Restricted to professional users.

2.3. Other hazards

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Avoid exposure - obtain special instructions before use. Do not breathe vapours or spray mist.

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		>= 60 % - < 90 %	N.C.*
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 %	
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 %	
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	>= 1 % - < 5 %	

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		Eye Irrit. 2; H319 STOT SE 3; H335; Respiratory system STOT RE 1; H372 Aquatic Acute 1; H400		
1H-Imidazole monohydriodide	68007-08-9 460-240-0	Acute Tox. 4; H302; Oral Repr. 1B; H360D	>= 1 % - < 5 %	

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:

Remove 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

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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 (NO_x)

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

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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: $> 0 < 35^{\circ}\text{C}$) 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

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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/m ³ 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
imidazole	Workers / Long-term systemic effects		10,6 mg/m ³	Inhalation	
imidazole	Workers / Long-term systemic effects		1,5mg/kg bw/d	Skin contact	
sulphur dioxide	Workers / Long-term local effects		1,3 mg/m ³	Inhalation	
sulphur dioxide	Workers / Acute local effects		2,7 mg/m ³	Inhalation	
sulphur dioxide	Consumers / Long-term local effects		0,53 mg/m ³	Inhalation	
iodine	Workers /		0,07 mg/m ³	Inhalation	

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	Long-term systemic effects				
iodine	Workers / Long-term systemic effects		0,01mg/kg bw/d	Skin contact	

Component	Environmental compartment / Value	Remarks
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	
sulphur dioxide	:	No data available
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	
1H-Imidazole monohydriodide	Fresh water: 0,0014 mg/l	Assessment factor: 1000
1H-Imidazole monohydriodide	Marine water: 0,00014 mg/l	Assessment factor: 1000

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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	

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.

Avoid exposure - obtain special instructions before use.

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.

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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 recommends to use the chemical protective glove in practice not longer than 50% of the recommended 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 |
| (g) Lower and upper explosion limit | : | Lower explosion limit
No data available |
| | : | Upper explosion limit |

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- No data available
- (h) Flash point : 97 °C
- (i) Auto-ignition temperature : No data available
- (j) Decomposition temperature : No decomposition if used as directed.
- (k) pH : 3,0 - 4,0
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. 1,110 g/cm³
at 20 °C
- (q) Relative vapour density : No data available
- (r) Particle characteristics : No data available

9.2 Other Information

The information regarding the flash point is that of the solvent.

Evaporation rate : No data available

Viscosity, dynamic : No data available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage 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 (NO_x)

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

The toxicological data mentioned are derived from an analogous product.

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Acute dermal toxicity:

LD50

Species: Rat

Value: > 2.000 mg/kg

The toxicological data has been taken from products of similar composition.

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

Classification: non-irritant

The toxicological data mentioned are derived from an analogous product.

(c) Serious eye damage/eye irritation:

Species: rabbit eye

Classification: non-irritant

The toxicological data mentioned are derived from an analogous product.

(d) Respiratory or skin sensitisation:

No data available

(e) Germ cell mutagenicity:

Test Method: Ames test

Result: negative

Note: The toxicological data mentioned are derived from an analogous product.

(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.

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(h) STOT-single exposure:

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

No data available

Other information:

No data available

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

The toxicological data mentioned are derived from an analogous product.

12.3. Bioaccumulative potential

No data available

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12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

No data available

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)

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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 Listed in Regulation : H2: ACUTE TOXIC	Quantity: 50.000 kg Quantity: 200.000 kg	
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).

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

China. Inventory of Existing Chemical Substances (IECSC)

On the inventory, or 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.

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

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.
sulphur dioxide	:	H280 Contains gas under pressure; may explode if heated. H331 Toxic if inhaled. H314 Causes severe skin burns and eye damage.
iodine	:	H302 Harmful if swallowed. H332 Harmful if inhaled.

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- 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.

1H-Imidazole
monohydriodide : H302 Harmful if swallowed.
H360D May damage the unborn child.

Further information

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 bioaccumulative substance
PBT Persistent, bioaccumulative 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.

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

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