

HYDRANAL™ Medium K

34698-1L

Version 1.11

Revision Date 17.12.2022

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

1.1. Product identifier

Product name : HYDRANAL™ Medium K
SDS-number : 000000020497
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. Honeywell International, Inc.
115 Tabor Road 115 Tabor Road
07950-2546 Morris Plains Morris Plains, NJ 07950-2546
USA 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)
Country based Poison Control Center : see chapter 15.1

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

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Flammable liquids Category 3
H226 Flammable liquid and vapour.
Acute toxicity Category 4 - Oral
H302 Harmful if swallowed.
Acute toxicity Category 3 - Inhalation
H331 Toxic if inhaled.
Skin irritation Category 2
H315 Causes skin irritation.
Serious eye damage Category 1
H318 Causes serious eye damage.
Specific target organ toxicity - single exposure Category 3
H336 May cause drowsiness or dizziness.
Carcinogenicity Category 2
H351 Suspected of causing cancer.
Reproductive toxicity Category 1A
H360Fd May damage fertility. Suspected of damaging the unborn child.
Specific target organ toxicity - repeated exposure Category 1
H372 Causes damage to organs through prolonged or repeated exposure if swallowed and inhaled.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms



Signal word

: Danger

Hazard statements

: H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H360Fd May damage fertility. Suspected of damaging the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure if swallowed and inhaled.

Precautionary statements

: P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

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P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	In case of inadequate ventilation wear respiratory protection.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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 + P313	IF exposed or concerned: Get medical advice/ attention.

Hazardous components which must be listed on the label : trichloromethane; chloroform
1-methoxy-2-propanol; monopropylene glycol methyl ether
2,2,2-Trifluoroethanol

Special labelling of certain products: : Restricted to professional users.

2.3. Other hazards

Do not breathe vapours or spray mist.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
trichloromethane;	67-66-3	Acute Tox. 4; H302; Oral	>= 53 % - < 63 %	

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chloroform	602-006-00-4 200-663-8	Acute Tox. 3; H331; Inhalation Skin Irrit. 2; H315 Eye Irrit. 2; H319 Carc. 2; H351 Repr. 2; H361d STOT RE 1; H372 STOT SE 3; H336		
1-methoxy-2-propanol; monopropylene glycol methyl ether	107-98-2 603-064-00-3 203-539-1	Flam. Liq. 3; H226 STOT SE 3; H336; Central nervous system	>= 20 % - < 30 %	
2,2,2-Trifluoroethanol	75-89-8 200-913-6	Flam. Liq. 3; H226 Acute Tox. 3; H301; Oral Acute Tox. 3; H331; Inhalation Eye Dam. 1; H318 Repr. 1B; H360F STOT RE 2; H373; Inhalation	>= 10 % - < 20 %	
Imidazol hydrobromide	101023-55-6 483-310-2		>= 1 % - < 5 %	N.C.*

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:

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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

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
Dry powder
Carbon dioxide (CO₂)

Extinguishing media which shall not be used for safety reasons:

High volume water jet

5.2. Special hazards arising from the substance or mixture

No data available

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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

Remove all sources of ignition. Ensure adequate ventilation.

6.2. Environmental precautions

Should not be released into the environment.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material.
Pick for disposal in tightly closed containers

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:

Exhaust ventilation at the object is necessary. Use explosion-proof equipment.

Advice on protection against fire and explosion:

Keep away from sources of ignition - No smoking. The heavy vapours can overcome a considerable distance up to the source of ignition. 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

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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.

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
trichloromethane; chloroform	EH40 WEL TWA	9,9 mg/m3 2 ppm		
trichloromethane; chloroform	EH40 WEL SKIN_DES			Can be absorbed through the skin.
trichloromethane; chloroform	EH40 WEL			Listed
trichloromethane; chloroform	EU ELV SKIN_DES			Can be absorbed through the skin.
trichloromethane; chloroform	EU ELV TWA	10 mg/m3 2 ppm		Indicative

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1-methoxy-2-propanol; monopropylene glycol methyl ether	EU ELV SKIN_DES			Can be absorbed through the skin.
1-methoxy-2-propanol; monopropylene glycol methyl ether	EH40 WEL SKIN_DES			Can be absorbed through the skin.
1-methoxy-2-propanol; monopropylene glycol methyl ether	EH40 WEL STEL	560 mg/m3 150 ppm		
1-methoxy-2-propanol; monopropylene glycol methyl ether	EH40 WEL TWA	375 mg/m3 100 ppm		
1-methoxy-2-propanol; monopropylene glycol methyl ether	EU ELV STEL	568 mg/m3 150 ppm		Indicative
1-methoxy-2-propanol; monopropylene glycol methyl ether	EU ELV TWA	375 mg/m3 100 ppm		Indicative

TWA - Time weighted average

SKIN_DES - Skin designation:

STEL - Short term exposure limit

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
trichloromethane; chloroform	Workers / Long-term systemic effects		2,5 mg/m3	Inhalation	
trichloromethane; chloroform	Workers / Acute systemic effects		333 mg/m3	Inhalation	
trichloromethane; chloroform	Workers / Long-term local effects		2,5 mg/m3	Inhalation	
trichloromethane; chloroform	Workers / Long-term systemic effects		0,94mg/kg bw/d	Skin contact	
trichloromethane; chloroform	Consumers / Long-term systemic effects		0,18 mg/m3	Inhalation	
2,2,2-Trifluoroethanol	Workers / Long-term systemic		0,1 mg/m3	Inhalation	

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	effects				
2,2,2-Trifluoroethanol	Workers / Long-term systemic effects		0,06 mg/m3	Skin contact	
2,2,2-Trifluoroethanol	Consumers / Long-term systemic effects		0,025 mg/m3	Inhalation	

Component	Environmental compartment / Value	Remarks
trichloromethane; chloroform	Fresh water: 0,146 mg/l	Assessment factor: 10
trichloromethane; chloroform	Marine water: 0,015 mg/l	Assessment factor: 100
trichloromethane; chloroform	Sewage treatment plant: 0,048 mg/l	Assessment factor: 10
trichloromethane; chloroform	Fresh water sediment: 0,45 mg/kg dw	Assessment factor: 10
trichloromethane; chloroform	Marine sediment: 0,09 mg/kg dw	Assessment factor: 50
trichloromethane; chloroform	Soil: 0,56 mg/kg dw	
2,2,2-Trifluoroethanol	Fresh water: 0,119 mg/l	Assessment factor: 1000
2,2,2-Trifluoroethanol	Marine water: 0,0119 mg/l	Assessment factor: 10000
2,2,2-Trifluoroethanol	Sewage treatment plant: 100 mg/l	Assessment factor: 100
2,2,2-Trifluoroethanol	Fresh water sediment: 0,486 mg/kg dw	
2,2,2-Trifluoroethanol	Marine sediment: 0,0486 mg/kg dw	
2,2,2-Trifluoroethanol	Soil: 0,0273 mg/kg dw	

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8.2. Exposure controls

Occupational exposure controls

Do not breathe vapour.

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.

Engineering measures

Use with local exhaust ventilation.

Personal protective equipment

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection:

Glove material: Viton®

Vitoject® 890

Gloves must be inspected prior to use.

Replace when worn.

Eye protection:

Safety goggles

Skin and body protection:

Wear suitable protective clothing.

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

Physical state : liquid

Colour : colourless

Odour : aromatic

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Melting point/range	:	No data available
Boiling point/boiling range	:	58 °C
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Flash point	:	56 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No decomposition if used as directed.
pH	:	No data available
Viscosity, kinematic	:	No data available
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available
Density	:	1,255 g/cm ³ at 20 °C
Relative vapour density	:	No data available

9.2 Other Information

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

Heat, flames and sparks.

10.5. Incompatible materials

Strong oxidizing agents

Strong bases

Strong acids

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

Acute toxicity estimate

Value: 431,41 mg/kg

Method: Calculation method

Acute dermal toxicity:

No data available

Acute inhalation toxicity:

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Acute toxicity estimate

Value: 5,17 mg/l

Method: Calculation method

Skin irritation:

No data available

Eye irritation:

No data available

Respiratory or skin sensitisation:

No data available

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

No data available

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

Harmful to aquatic organisms.

The product should not be allowed to enter drains, water courses or the soil.

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

ADR/RID:1992

IMDG:1992

IATA:1992

14.2 UN proper shipping name

ADR/RID:FLAMMABLE LIQUID, TOXIC, N.O.S.(CHLOROFORM, 1-METHOXY-2-PROPANOL, 2,2,2-TRIFLUOROETHANOL)

IMDG:FLAMMABLE LIQUID, TOXIC, N.O.S.(CHLOROFORM,1-METHOXY-2-PROPANOL,2,2,2-TRIFLUOROETHANOL)

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IATA: Flammable liquid, toxic, n.o.s. (Chloroform, 1-Methoxy-2-propanol, 2,2,2-Trifluoroethanol)

14.3 Transport hazard class(es)

ADR/RID: 3 (6.1)

IMDG: 3 (6.1)

IATA: 3 (6.1)

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: no

Marine pollutant: no

14.6 Special precautions for user

IMDG Code segregation group (SGG10) – Liquid halogenated hydrocarbons,

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 : P5c: FLAMMABLE LIQUIDS Number in Regulation: 1.2.5.3	Quantity: 5.000.000 kg Quantity: 50.000.000 kg	
Directive 2012/18/EC Listed in Regulation : H2: ACUTE TOXIC Number in Regulation: 1.1.2	Quantity: 50.000 kg Quantity: 200.000 kg	
Regulation (EC) No. 1907/2006, Annex XVII		This product contains an ingredient according to Annex XVII of the REACH Regulation 1907/2006/EC.
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of $\geq 0.1\%$ (w/w).

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Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777
Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
Munich : 089/19240	
Latvia	+37167042473

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	800250250
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Giftninformation); +46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

Other inventory information

US. Toxic Substances Control Act

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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
Not 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

trichloromethane; chloroform : H302 Harmful if swallowed.

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		H331	Toxic if inhaled.
		H315	Causes skin irritation.
		H319	Causes serious eye irritation.
		H351	Suspected of causing cancer.
		H361d	Suspected of damaging the unborn child.
		H372	Causes damage to organs through prolonged or repeated exposure if swallowed and inhaled.
		H336	May cause drowsiness or dizziness.
1-methoxy-2-propanol; monopropylene glycol methyl ether	:	H226	Flammable liquid and vapour.
		H336	May cause drowsiness or dizziness.
2,2,2-Trifluoroethanol	:	H226	Flammable liquid and vapour.
		H301	Toxic if swallowed.
		H331	Toxic if inhaled.
		H318	Causes serious eye damage.
		H360F	May damage fertility.
		H373	May cause damage to organs through prolonged or repeated exposure if inhaled.

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

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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.
