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

1.1. Product identifier				
Product name	: HYDRANAL™Water Standard 10.0	HYDRANAL [™] Water Standard 10.0		
SDS-number	: 00000020628	00000020628		
Type of product	: Mixture			
Remarks	: SDS according to Art. 31 of Regulation (EC) 1907/2006.			
1.2. Relevant identified u	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 suppli	f the safety data sheet			
Company	 Honeywell International Inc. Honeywell International, 115 Tabor Road 07950-2546 Morris Plains USA Honeywell International, 115 Tabor Road Morris Plains, NJ 07950-USA 			
Telephone For further information, please contact:	: SafetyDataSheet@Honeywell.com			
1.4. Emergency telephone number				
Emergency telephone number Country based Poison Control Center	+1-703-527-3887 (ChemTrec-Transport) +1-303-389-1414 (Medical) 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. 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 - Central nervous system H336 May cause drowsiness or dizziness. Specific target organ toxicity - single exposure Category 3 - Respiratory system H335 May cause respiratory irritation. Aspiration hazard Category 1 H304 May be fatal if swallowed and enters airways.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms



Signal word	:	Danger	
Hazard statements	:	H226 H304	Flammable liquid and vapour. May be fatal if swallowed and enters airways.
		H315	Causes skin irritation.
		H318	Causes serious eye damage.
		H335	May cause respiratory irritation.
		H336	May cause drowsiness or dizziness.
Precautionary statements	:	P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
		P280	Wear protective gloves/ eye protection/ face protection.
		P284	In case of inadequate ventilation wear respiratory protection.
		P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
		P302 + P352	IF ON SKIN: Wash with plenty of water.
		P304 + P340	IF INHALED: Remove person to fresh
			air and keep comfortable for breathing.
		P305 + P351 + P338	
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P308 + P313

lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/ attention.

Hazardous components	:	o-xylene
which must be listed on the		butan-1-ol; n-butanol
label		

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. Substance

Not applicable

3.2. Mixture

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
propylene carbonate	108-32-7 607-194-00-1 203-572-1	Eye Irrit. 2; H319	>= 47 % - <= 57 %	
o-xylene	95-47-6 601-022-00-9 202-422-2	Flam. Liq. 3; H226 Acute Tox. 4; H332; Inhalation Acute Tox. 4; H312; Dermal Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 Asp. Tox. 1; H304	>= 20 % - < 25 %	



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		Aquatic Chronic 3; H412		
butan-1-ol; n- butanol	71-36-3 603-004-00-6 200-751-6	Flam. Liq. 3; H226 Acute Tox. 4; H302; Oral Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335; Respiratory system STOT SE 3; H336; Central nervous system	>= 20 % - < 25 %	

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 with soap and 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

Inhalation may provoke the following symptoms:, Drowsiness, Headache

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

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:

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: High volume water jet

5.2. Special hazards arising from the substance or mixture

No data available

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. 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.

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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.

Advice on protection against fire and explosion:

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Normal measures for preventive fire protection. Vapours may form explosive mixtures with air.

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: $> 0 < 35^{\circ}$ C) Protect from atmospheric moisture and water.

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
o-xylene	EU ELV SKIN_DES			Can be absorbed through the skin.
o-xylene	EH40 WEL TWA	220 mg/m3 50 ppm		
o-xylene	EH40 WEL SKIN_DES			Can be absorbed through the skin.
o-xylene	EH40 WEL			Listed
o-xylene	EU ELV STEL	442 mg/m3 100 ppm		Indicative
o-xylene	EU ELV TWA	221 mg/m3 50 ppm		Indicative
o-xylene	EH40 WEL STEL	441 mg/m3 100 ppm	15 minutes	
butan-1-ol; n-butanol	EH40 WEL SKIN_DES			Can be absorbed through the skin.
butan-1-ol; n-butanol	EH40 WEL STEL	154 mg/m3 50 ppm	15 minutes	

SKIN_DES - Skin designation:

TWA - Time weighted average

STEL - Short term exposure limit

DNEL/ PNEC-Values

Component	End- use/impact	Exposure duration	Value	Exposure routes	Remarks
propylene carbonate	Workers / Long-term systemic effects		70,53 mg/m3	Inhalation	
propylene carbonate	Workers /		20 mg/m3	Inhalation	

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	Long-term local effects			
propylene carbonate	Workers / Long-term systemic effects	20mg/kg bw/d	Skin contact	
propylene carbonate	Consumers / Long-term systemic effects	17,4 mg/m3	Inhalation	
propylene carbonate	Consumers / Long-term local effects	10 mg/m3	Inhalation	
propylene carbonate	Consumers / Long-term systemic effects	10mg/kg bw/d	Skin contact	
propylene carbonate	Consumers / Long-term systemic effects	10mg/kg bw/d	Ingestion	
o-xylene	Workers / Long-term systemic effects	221 mg/m3	Inhalation	
o-xylene	Workers / Acute systemic effects	442 mg/m3	Inhalation	
o-xylene	Workers / Long-term local effects	221 mg/m3	Inhalation	
o-xylene	Workers / Acute local effects	442 mg/m3	Inhalation	
o-xylene	Workers / Long-term systemic effects	3182mg/kg bw/d	Skin contact	
o-xylene	Consumers / Long-term	65,3 mg/m3	Inhalation	

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	systemic effects			
o-xylene	Consumers / Acute systemic effects	260 mg/m3	Inhalation	
o-xylene	Consumers / Long-term local effects	65,3 mg/m3	Inhalation	
o-xylene	Consumers / Acute local effects	260 mg/m3	Inhalation	
o-xylene	Consumers / Long-term systemic effects	1872mg/kg bw/d	Skin contact	
o-xylene	Consumers / Long-term systemic effects	12,5mg/kg bw/d	Ingestion	
butan-1-ol; n-butanol	Workers / Long-term systemic effects	310 mg/m3	Inhalation	
butan-1-ol; n-butanol	Consumers / Long-term systemic effects	55 mg/m3	Inhalation	
butan-1-ol; n-butanol	Consumers / Long-term systemic effects	3,125mg/kg bw/d	Ingestion	

Component	Environmental compartment / Value	Remarks
propylene carbonate	Fresh water: 0,9 mg/l	Assessment factor: 1000
propylene carbonate	Marine water: 0,09 mg/l	Assessment factor: 10000
propylene carbonate	Sewage treatment plant: 7400 mg/l	

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propylene carbonate	Soil: 0,81 mg/kg dw	
o-xylene	Fresh water: 0,25 mg/l	
o-xylene	Marine water: 0,25 mg/l	
o-xylene	Sewage treatment plant: 5 mg/l	
o-xylene	Fresh water sediment: 14,33 mg/kg dw	
o-xylene	Marine sediment: 14,33 mg/kg dw	
o-xylene	Soil: 2,41 mg/kg dw	
butan-1-ol; n-butanol	Fresh water: 0,082 mg/l	Assessment factor: 50
butan-1-ol; n-butanol	Marine water: 0,0082 mg/l	Assessment factor: 500
butan-1-ol; n-butanol	Sewage treatment plant: 2476 mg/l	
butan-1-ol; n-butanol	Fresh water sediment: 0,178 mg/kg dw	
butan-1-ol; n-butanol	Marine sediment: 0,0178 mg/kg dw	
butan-1-ol; n-butanol	Soil: 0,015 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.

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

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Organic vapour type

Hand protection: Glove material: Viton® Break through time: > 480 min Glove thickness: 0,7 mm Vitoject® 890 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 Physical state : liquid Colour : colourless

Odour : aromatic

Melting point/range	:	No data available
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Boiling point/boiling range	:	109 °C at 1.013 hPa
Flammability	:	Flammable liquid and vapour.
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Flash point	:	32 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No decomposition if used as directed.
рН	:	No data available
Auto-ignition temperature	:	No data available
Viscosity, kinematic	:	No data available
Water solubility	:	immiscible
Partition coefficient: n- octanol/water	:	No data available
Vapour pressure	:	No data available
Density	:	ca. 1,000 g/cm3 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

Vapours may form explosive mixture with air. Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Strong oxidizing agents

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: > 5.000 mg/kg Method: Calculation method

Acute dermal toxicity: Acute toxicity estimate Value: > 5.000 mg/kg Method: Calculation method

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Acute inhalation toxicity: Acute toxicity estimate Value: > 20 mg/l Method: Calculation method

Skin irritation: Result: irritating The product has not been tested. The information is derived from the properties of the individual components.

Eye irritation: Result: Risk of serious damage to eyes. The product has not been tested. The information is derived from the properties of the individual components.

Respiratory or skin sensitisation: Result: non-sensitizing The product has not been tested. The information is derived from the properties of the individual components.

Repeated dose toxicity: Note: No data available

Carcinogenicity: Note: No data available

Germ cell mutagenicity: Note: No data available

Reproductive toxicity: Remarks: 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

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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: No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

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.

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

Do not flush into surface water or sanitary sewer system.

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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:1993	IMDG:1993	IATA:1993	
14.2 UN proper shipping name ADR/RID:FLAMMABLE LIQUID, N.O.S.(1-BUTANOL, XYLENE) IMDG:FLAMMABLE LIQUID, N.O.S.(1-BUTANOL,XYLENE) IATA:Flammable liquid, n.o.s.(1-Butanol, Xylene)			
14.3 Transport hazard clas ADR/RID: 3	ss(es) IMDG: 3	IATA: 3	
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

Special Provision 640ESpecial Provision 640EIMDG Code segregation group according chapter 3.1.4.4 : NONE,

14.7 Maritime transport in bulk according to IMO instruments

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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	Quantity: 5.000.000 kg Quantity: 50.000.000 kg	
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 ≥ 0.1 % (w/w).

VOC:

Directive 1999/13/EC on the limitation of emissions of volatile organic compounds, 48 %

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

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

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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

Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Giftinformation);+46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

Other inventory information

US. Toxic Substances Control Act On TSCA Inventory

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) All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI) On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS) On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)

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On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI) On the inventory, or 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

propylene carbonate	:	H319	Causes serious eye irritation.
o-xylene	:	H226	Flammable liquid and vapour.
		H332	Harmful if inhaled.
		H312	Harmful in contact with skin.
		H315	Causes skin irritation.
		H319	Causes serious eye irritation.
		H335	May cause respiratory irritation.
		H304	May be fatal if swallowed and enters airways.
		H412	Harmful to aquatic life with long lasting effects.
butan-1-ol; n-butanol	:	H226	Flammable liquid and vapour.
		H302	Harmful if swallowed.
		H315	Causes skin irritation.
		H318	Causes serious eye damage.
		H335	May cause respiratory irritation.
		H336	May cause drowsiness or dizziness.
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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 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.

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

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