

**HYDRANAL™ Test Solution 5.0****34813-100ML**

Version 1.1

Revision Date 03/03/2020

Print Date 05/12/2023

**SECTION 1. IDENTIFICATION**

Product name : HYDRANAL™ Test Solution 5.0

Number : 000000020616

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell International Inc.  
1953 South Harvey Street  
Muskegon, MI 49442

For more information call : 1-800-368-0050  
+1-231-726-3171(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**  
:  
: (24 hours/day, 7 days/week)

**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

Form : liquid

Color : colourless

Odor : aromatic

**Classification of the substance or mixture**

Classification of the substance or mixture : Flammable liquids, Category 3  
Acute toxicity, Category 4, Oral  
Acute toxicity, Category 4, Inhalation  
Acute toxicity, Category 4, Dermal  
Skin irritation, Category 2  
Serious eye damage, Category 1  
Specific target organ toxicity - single exposure, Category 3,

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Respiratory system, Central nervous system  
Aspiration hazard, Category 1

**GHS Label elements, including precautionary statements**

Symbol(s)

:



Signal word

: Danger

Hazard statements

: Flammable liquid and vapour.  
Harmful if swallowed, in contact with skin or if inhaled.  
May be fatal if swallowed and enters airways.  
Causes skin irritation.  
Causes serious eye damage.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.

Precautionary statements

: **Prevention:**  
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.  
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

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rinsing.  
 Immediately call a POISON CENTER/ doctor.  
 Do NOT induce vomiting.  
 If skin irritation occurs: Get medical advice/ attention.  
 Take off contaminated clothing and wash before reuse.  
 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed.  
 Keep cool.  
 Store locked up.

**Disposal:**

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

**Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature : Mixture

Chemical name	CAS-No.	Concentration
o-Xylene	95-47-6	>=70.00 - <90.00 %
Butan-1-ol	71-36-3	>=20.00 - <30.00 %

**SECTION 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

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- 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**

- Most important symptoms/effects, acute and delayed : No information available.
- Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during firefighting : Flammable.  
Vapours may form explosive mixtures with air.  
Vapours are heavier than air and may spread along floors.  
Vapors may travel to areas away from work site before igniting/flashing back to vapor source.
- 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.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- 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.
- Environmental precautions : Should not be released into the environment.
- Methods and materials for containment and cleaning up : Ventilate the area.  
Do not use sparking tools.  
Use explosion-proof equipment.  
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).

**SECTION 7. HANDLING AND STORAGE****Handling**

- Precautions for safe handling : Wear personal protective equipment.  
Use only in well-ventilated areas.
- Advice on protection against fire and explosion : Keep product and empty container away from heat and sources of ignition.  
No smoking.  
Take precautionary measures against static discharges.  
Vapours may form explosive mixtures with air.

**Storage**

- Conditions for safe storage, including any incompatibilities : 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.

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

- 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 breathing vapours, mist or gas.
- Engineering measures : Use with local exhaust ventilation.  
Prevent vapour buildup by providing adequate ventilation during and after use.
- Eye protection : Safety goggles
- Hand protection : Protective gloves  
Gloves must be inspected prior to use.  
Replace when worn.
- Skin and body protection : Protective suit
- Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
- 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.

**Exposure Guidelines**

Components	CAS-No.	Value	Control parameters	Update	Basis
o-Xylene	95-47-6	TWA : Time weighted average	(100 ppm)	03 2014	ACGIH:US. ACGIH Threshold Limit Values, as amended
o-Xylene	95-47-6	STEL : Short term exposure limit	(150 ppm)	03 2014	ACGIH:US. ACGIH Threshold Limit Values, as amended

## SAFETY DATA SHEET



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o-Xylene	95-47-6	REL : Recomm ended exposure limit (REL):	435 mg/m3 (100 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
o-Xylene	95-47-6	STEL : Short term exposure limit	655 mg/m3 (150 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
o-Xylene	95-47-6	PEL : Permissi ble exposure limit	435 mg/m3 (100 ppm)	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
o-Xylene	95-47-6	STEL : Short term exposure limit	655 mg/m3 (150 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
o-Xylene	95-47-6	TWA : Time weighted average	435 mg/m3 (100 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Butan-1-ol	71-36-3	TWA : Time weighted average	(20 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended

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Butan-1-ol	71-36-3	Ceil_Tim e : Ceiling Limit Value and Time Period (if specified) :	150 mg/m3 (50 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Butan-1-ol	71-36-3	SKIN_DE S : Skin designati on:	Can be absorbed through the skin.	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Butan-1-ol	71-36-3	PEL : Permissi ble exposure limit	300 mg/m3 (100 ppm)	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Butan-1-ol	71-36-3	SKIN_FI NAL : Skin designati on (Final Rule Limit Limit applies):	Can be absorbed through the skin.	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Butan-1-ol	71-36-3	Ceiling : Ceiling Limit Value:	150 mg/m3 (50 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state : liquid



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Color	: colourless
Odor	: aromatic
Odor threshold	: Note: no data available
pH	: Note: no data available
Melting point/range	: Note: no data available
Boiling point/boiling range	: 116 °C at 1,013 hPa
Flash point	: 81 °F (27 °C)
Evaporation rate	: Note: no data available
Lower explosion limit	: Note: no data available
Upper explosion limit	: Note: no data available
Vapor pressure	: Note: no data available
Vapor density	: Note: no data available
Density	: 0.850 g/cm <sup>3</sup> at 20 °C
Water solubility	: Note: slightly soluble
Partition coefficient: n-octanol/water	: Note: no data available

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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

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Bases Alkali metals Oxidizing agents Strong acids Halogens
Hazardous decomposition products	: In case of fire hazardous decomposition products may be produced such as: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity	: Acute toxicity estimate: 1,724 mg/kg Method: Calculation method
Acute inhalation toxicity	: Acute toxicity estimate: 15.49 mg/l , vapour

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	Exposure time: 4 h Method: Calculation method
Acute dermal toxicity	: Acute toxicity estimate: 1,368 mg/kg Method: Calculation method
Skin irritation o-Xylene	: Result: Irritating to skin.
Butan-1-ol	: Species: Rabbit Result: Moderate skin irritation
Eye irritation o-Xylene	: Result: Irritating to eyes.
Butan-1-ol	: Species: Rabbit Result: Severe eye irritation
Repeated dose toxicity Butan-1-ol	: Species: Rat Application Route: Inhalation Exposure time: (13 Weeks) NOAEL (No observed adverse effect level): 3000 ppm  Species: Rat Application Route: Oral Exposure time: (13 Weeks) NOAEL (No observed adverse effect level): 125 mg/kg/d LOAEL (Lowest observed adverse effect level): 500 mg/kg/d
Genotoxicity in vitro Genotoxicity in vivo Butan-1-ol	: Note: In vivo tests did not show mutagenic effects

**SECTION 12. ECOLOGICAL INFORMATION**

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Toxicity to fish  
o-Xylene: LC50: 16.9 mg/l  
Exposure time: 96 h  
Species: Carassius auratus (goldfish)

Butan-1-ol

: static test  
LC50: 1,376 mg/l  
Exposure time: 96 h  
Species: Pimephales promelas (fathead minnow)  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates

Butan-1-ol

: static test  
EC50: 1,328 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 202

Toxicity to algae

Butan-1-ol

: EC50: 225 mg/l  
Exposure time: 96 h  
Species: Scenedesmus capricornutum (fresh water algae)  
Method: OECD Test Guideline 201

Biodegradability

Butan-1-ol

: Result: Readily biodegradable.  
Value: > 70 %**Further information on ecology**Additional ecological  
information

: Should not be released into the environment.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods

: Observe all Federal, State, and Local Environmental  
regulations.

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**SECTION 14. TRANSPORT INFORMATION**

<b>DOT</b>	UN/ID No.	: UN 1993
	Proper shipping name	: Flammable liquids, n.o.s. (1-Butanol, Xylene)
	Class	: 3
	Packing group	: III
	Hazard Labels	: 3
<b>IATA</b>	UN/ID No.	: UN 1993
	Description of the goods	: Flammable liquids, n.o.s. (1-Butanol, Xylene)
	Class	: 3
	Packaging group	: III
	Hazard Labels	: 3
	Packing instruction (cargo aircraft)	: 366
	Packing instruction (passenger aircraft)	: 355
	Packing instruction (passenger aircraft)	: Y344
<b>IMDG</b>	UN/ID No.	: UN 1993
	Description of the goods	: Flammable liquids, n.o.s. (1-BUTANOL, XYLENE)
	Class	: 3
	Packaging group	: III
	Hazard Labels	: 3
	EmS Number	: F-E, S-E
	Marine pollutant	: no
	IMDG Code segregation group according chapter 3.1.4.4	: NONE,

**SECTION 15. REGULATORY INFORMATION**
**Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemical (Notification and : On the inventory, or in compliance with the inventory

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## Assessment) Act

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. The Toxic Substances and Hazardous and Nuclear Waste Control Act : 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

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

**National regulatory information**

US. EPA CERCLA Hazardous Substances (40 CFR 302) : The following component(s) of this product is/are subject to release reporting under 40 CFR 302 when release exceeds the Reportable Quantity (RQ):

Reportable quantity: 1000 lbs	
: o-Xylene	95-47-6
:	
Reportable quantity: 5000 lbs	
: Butan-1-ol	71-36-3

**SARA 302 Components** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components** : The following components are subject to reporting levels established by SARA Title III, Section 313:

: o-Xylene	95-47-6
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	: Butan-1-ol	71-36-3
<b>SARA 311/312 Hazards</b>	: Fire Hazard Acute Health Hazard Chronic Health Hazard	
<b>CERCLA Reportable Quantity</b>	: 1408 lbs	
<b>California Prop. 65</b>	: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.	
<b>Massachusetts RTK</b>	: o-Xylene	95-47-6
	: Butan-1-ol	71-36-3
<b>New Jersey RTK</b>	: o-Xylene	95-47-6
	: Butan-1-ol	71-36-3
<b>Pennsylvania RTK</b>	: Butan-1-ol	71-36-3
	: o-Xylene	95-47-6

**SECTION 16. OTHER INFORMATION**

	<b>HMIS III</b>	<b>NFPA</b>
Health hazard	: 3*	3
Flammability	: 3	3
Physical Hazard	: 0	
Instability	:	0

\* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information

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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.

Previous Issue Date: 09/22/2016

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group