

**HYDRANAL™-Solvent****34800-1L-US**

Version 1.3

Revision Date 08/20/2018

Print Date 05/22/2019

**SECTION 1. IDENTIFICATION**

Product name : HYDRANAL™-Solvent

Number : 000000020605

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 : slight, original odour

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**Classification of the substance or mixture**

Classification of the substance or mixture : Flammable liquids, Category 2  
Acute toxicity, Category 4, Inhalation  
Skin corrosion, Category 1B  
Serious eye damage, Category 1  
Reproductive toxicity, Category 1B  
Specific target organ toxicity - single exposure, Category 1,  
Eyes, Nervous system, Systemic toxicity

**GHS Label elements, including precautionary statements**

Symbol(s)



Signal word

: Danger

Hazard statements

: Highly flammable liquid and vapour.  
Causes severe skin burns and eye damage.  
Harmful if inhaled.  
May damage fertility or the unborn child.  
Causes damage to organs.

Precautionary statements

: **Prevention:**  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
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.  
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.

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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: rinse mouth. Do NOT induce vomiting.

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 rinsing.

Immediately call a POISON CENTER/doctor.

Wash contaminated clothing 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 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
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Methanol	67-56-1	>=60.00 - <=100.00 %
Imidazole	288-32-4	>=10.00 - <30.00 %
Sulphur dioxide	7446-09-5	>=5.00 - <10.00 %

**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 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.

**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media	:	Water spray Foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media	:	Do not use a solid water stream as it may scatter and spread fire.

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- Specific hazards during firefighting : In case of fire hazardous decomposition products may be produced such as:  
Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)  
nitrogen oxides (NO<sub>x</sub>)  
Sulphur oxides
- 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.

**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 : Wear personal protective equipment.

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**handling**

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**

: Store in area designed for storage of flammable liquids. Protect from physical damage.  
 Keep containers tightly closed in a dry, cool and well-ventilated place.  
 Store in original container.  
 Protect from atmospheric moisture and water.

**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.  
 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.

**Eye protection**

: Safety goggles

**Hand protection**

: Impervious butyl rubber 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

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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
Methanol	67-56-1	SKIN_DES : Skin designation:	Can be absorbed through the skin.	2008	ACGIH:US. ACGIH Threshold Limit Values
Methanol	67-56-1	STEL : Short term exposure limit	(250 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values
Methanol	67-56-1	TWA : Time weighted average	(200 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values
Methanol	67-56-1	STEL : Short term exposure limit	325 mg/m3 (250 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Methanol	67-56-1	SKIN_DES : Skin designation:	Can be absorbed through the skin.	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards

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Methanol	67-56-1	REL : Recomm ended exposure limit (REL):	260 mg/m3 (200 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Methanol	67-56-1	PEL : Permissi ble exposure limit	260 mg/m3 (200 ppm)	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Methanol	67-56-1	SKIN_FI NAL : Skin designati on (Final Rule Limit applies):	Can be absorbed through the skin.	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
Methanol	67-56-1	STEL : Short term exposure limit	325 mg/m3 (250 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
Methanol	67-56-1	TWA : Time weighted average	260 mg/m3 (200 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
Sulphur dioxide	7446-09-5	STEL : Short term exposure limit	(0.25 ppm)	2009	ACGIH:US. ACGIH Threshold Limit Values



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Sulphur dioxide	7446-09-5	STEL : Short term exposure limit	13 mg/m3 (5 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Sulphur dioxide	7446-09-5	REL : Recomm ended exposure limit (REL):	5 mg/m3 (2 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Sulphur dioxide	7446-09-5	PEL : Permissi ble exposure limit	13 mg/m3 (5 ppm)	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Sulphur dioxide	7446-09-5	STEL : Short term exposure limit	13 mg/m3 (5 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
Sulphur dioxide	7446-09-5	TWA : Time weighted average	5 mg/m3 (2 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state : liquid

Color : colourless

Odor : slight, original odour

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Odor threshold	:	Note: no data available
pH	:	Note: no data available
Melting point/range	:	-98 °C
Boiling point/boiling range	:	Note: no data available
Flash point	:	52 °F (11 °C)
Evaporation rate	:	Note: no data available
Lower explosion limit	:	5.5 %(V)
Upper explosion limit	:	31 %(V)
Vapor pressure	:	171 hPa at 20 °C(68 °F)
Vapor density	:	Note: no data available
Density	:	0.890 g/cm <sup>3</sup> at 20 °C
Water solubility	:	Note: completely miscible
Partition coefficient: n-octanol/water	:	Note: no data available

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Ignition temperature	: Note: not determined
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**

Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Heat, flames and sparks. Protect from atmospheric moisture and water.
Incompatible materials	: Oxidizing agents Acids Acid chlorides Acid anhydrides Reducing agents Alkali metals
Hazardous decomposition products	: In case of fire hazardous decomposition products may be produced such as: Carbon monoxide Carbon dioxide (CO <sub>2</sub> ) nitrogen oxides (NO <sub>x</sub> ) Sulphur oxides

**SECTION 11. TOXICOLOGICAL INFORMATION**

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## Acute oral toxicity

Methanol : LD50: 5,628 mg/kg  
Species: Rat

Imidazole : LD50: 970 mg/kg  
Species: Rat

## Acute inhalation toxicity

Methanol : LC50: 64000 ppm  
Exposure time: 4 h  
Species: Rat

## Acute dermal toxicity

Methanol : LD50: 15,800 mg/kg  
Species: Rabbit

## Skin irritation

Methanol : Species: Rabbit  
Classification: irritating  
Exposure time: 24 h

Imidazole : Species: Rabbit  
Result: Causes burns.  
Method: OECD Test Guideline 404

## Eye irritation

Methanol : Species: rabbit eye  
Classification: irritating

Imidazole : Species: Rabbit  
Result: Risk of serious damage to eyes.  
Method: OECD Test Guideline 405

## Repeated dose toxicity

Methanol : Species: Rat

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Application Route: Inhalation  
Test substance: Methanol  
Developmental Toxicity  
NOAEL (maternal toxicity)  
10,000 ppm  
NOAEL (developmental toxicity)  
5,000 ppm  
Skeletal and visceral malformations.

Genotoxicity in vitro  
Methanol

: Note: In vitro tests did not show mutagenic effects

Imidazole

: Test Method: In vitro mammalian cell gene mutation test  
Cell type: Chinese hamster fibroblasts  
Metabolic activation: with and without metabolic activation  
Result: negative  
Method: OECD Test Guideline 476

: Test Method: reverse mutation assay  
Cell type: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Result: negative

Genotoxicity in vivo  
Methanol

: Note: In vivo tests did not show mutagenic effects

Imidazole

: Test Method: Micronucleus test  
Species: Mouse, male and female  
Cell type: Bone marrow  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative

Teratogenicity  
Imidazole

: Species: Rat Application Route: Oral

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No observed adverse effect level: 60 mg/kg body weight  
No observed adverse effect level: 60 mg/kg body weight  
Method: OECD Test Guideline 414  
Result: Embryotoxic effects and adverse effects on the offspring were detected.

**SECTION 12. ECOLOGICAL INFORMATION**

## Toxicity to fish

Methanol : LC50: 29,400 mg/l  
Exposure time: 96 h  
Species: Pimephales promelas (fathead minnow)

## Imidazole

: static test  
LC50: 283.6 mg/l  
Exposure time: 48 h  
Species: Leuciscus idus (Golden orfe)

## Toxicity to daphnia and other aquatic invertebrates

Methanol : LC50: 10,000 mg/l  
Exposure time: 24 h  
Species: Daphnia (water flea)

## Imidazole

: static test  
EC50: 341.5 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: Directive 67/548/EEC, Annex V, C.2.

## Toxicity to algae

Imidazole : static test  
EC50: 133 mg/l  
Exposure time: 72 h  
Species: Desmodesmus subspicatus (green algae)  
Method: DIN 38412

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## Toxicity to bacteria

## Methanol

: EC50: 43,000 mg/l  
Exposure time: 5 min  
Species: Photobacterium phosphoreum

EC50: 40,000 mg/l  
Exposure time: 15 min  
Species: Photobacterium phosphoreum

EC50: 39,000 mg/l  
Exposure time: 25 min  
Species: Photobacterium phosphoreum

## Biodegradability

## Imidazole

: Result: Readily biodegradable.  
Method: OECD Test Guideline 301A

**Further information on ecology****SECTION 13. DISPOSAL CONSIDERATIONS**

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

**SECTION 14. TRANSPORT INFORMATION**

<b>DOT</b>	UN/ID No.	: UN 1230
	Proper shipping name	: METHANOL SOLUTION
	Class	3
	Packing group	II
	Hazard Labels	3

<b>IATA</b>	UN/ID No.	: UN 1230
	Description of the goods	: METHANOL SOLUTION

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Class	:	3
Packaging group	:	II
Hazard Labels	:	3 (6.1)
Packing instruction (cargo aircraft)	:	364
Packing instruction (passenger aircraft)	:	352
Packing instruction (passenger aircraft)	:	Y341

<b>IMDG</b>	UN/ID No.	:	UN 1230
	Description of the goods	:	METHANOL SOLUTION
	Class	:	3
	Packaging group	:	II
	Hazard Labels	:	3 (6.1)
	EmS Number	:	F-E, S-D
	Marine pollutant	:	no

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

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act : 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. The Toxic : On the inventory, or in compliance with the inventory



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**Substances and Hazardous  
and Nuclear Waste Control  
Act**

China. Inventory of Existing Chemical Substances : 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: 5000 lbs  
: Methanol 67-56-1  
:  
Reportable quantity: 500 lbs  
: Sulphur dioxide 7446-09-5

**SARA 302 Components** : The following components are subject to reporting levels established by SARA Title III, Section 302:  
: Sulphur dioxide 7446-09-5

**SARA 313 Components** : The following components are subject to reporting levels established by SARA Title III, Section 313:  
: Methanol 67-56-1

**SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard  
Chronic Health Hazard

**CERCLA Reportable Quantity** : 5000 lbs

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**California Prop. 65**

:



**WARNING:** This product can expose you to chemicals, listed below, known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Sulphur dioxide	7446-09-5
Methanol	67-56-1

**Massachusetts RTK**

:	Methanol	67-56-1
:	Sulphur dioxide	7446-09-5

**New Jersey RTK**

:	Methanol	67-56-1
:	Sulphur dioxide	7446-09-5

**Pennsylvania RTK**

:	Methanol	67-56-1
:	Sulphur dioxide	7446-09-5

**SECTION 16. OTHER INFORMATION**

	HMIS III	NFPA
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 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

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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: 12/07/2016

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group