

HGLC230AA-4 Methanol LC-MS 34966-4x4L

000000011383

Version 3.1

Revision Date 03/26/2015

Print Date 02/16/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name

Methanol

MSDS Number

000000011383

Product Use Description

: Solvent

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, clear

Color

: colourless

Odor

: slight alcohol-like

Classification of the substance or mixture

or mixture

Classification of the substance : Flammable liquids, Category 2 Eye irritation, Category 2A

Reproductive toxicity, Category 2

Specific target organ toxicity - single exposure, Category 1,

Eyes, Nervous system, Systemic toxicity



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GHS Label elements, including precautionary statements

Symbol(s)







Signal word

: Danger

Hazard statements

: Highly flammable liquid and vapour.

Causes serious eye irritation.

Suspected of damaging 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.

Do not eat, drink or smoke when using this product. Wear protective gloves/ eye protection/ face protection.

Response:

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

IF exposed: Call a POISON CENTER or doctor/ physician. If eye irritation persists: Get medical advice/ attention.

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.



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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

Formula

: CH40

Chemical nature

: Substance

Chemical Name CAS-No. Concentration
67-56-1 100.00 %

SECTION 4. FIRST AID MEASURES

Inhalation

Methanol

: Call a physician immediately. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give

oxygen. Use oxygen as required, provided a qualified operator is

present.

Skin contact

: Wash off immediately with plenty of water for at least 15

minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician.

Eye contact

: Rinse immediately with plenty of water, also under the eyelids,

for at least 15 minutes. Call a physician.

Ingestion

: Call a physician immediately. Do NOT induce vomiting.

Immediate medical attention is required. Never give anything by

mouth to an unconscious person.

Notes to physician



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Treatment

: Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam

Carbon dioxide (CO2)

Dry chemical

Cool closed containers exposed to fire with water spray.

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.

In case of fire hazardous decomposition products may be

produced such as: Carbon monoxide Carbon dioxide (CO2)

Formaldehyde

for firefighters

Special protective equipment : Wear self-contained breathing apparatus and protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear personal protective equipment.

Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Ensure adequate ventilation. Remove all sources of ignition.

Do not swallow.

Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Prevent product from entering drains.

Discharge into the environment must be avoided.



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Do not flush into surface water or sanitary sewer system. Do not allow run-off from fire fighting to enter drains or water

courses.

Methods for cleaning up

Ventilate the area.

No sparking tools should be used. 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

Handling

Wear personal protective equipment.

Use only in well-ventilated areas. Keep container tightly closed.

Do not smoke. Do not swallow.

Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

Advice on protection against :

fire and explosion

Keep away from fire, sparks and heated surfaces.

Take precautionary measures against static discharges.

Ensure all equipment is electrically grounded before beginning

transfer operations.

Use explosion-proof equipment.

Keep product and empty container away from heat and sources

of ignition.

No sparking tools should be used.

No smoking.

Storage

Requirements for storage areas and containers

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.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage.

Keep away from heat and sources of ignition.

Keep away from direct sunlight.



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Store away from incompatible substances.

Container hazardous when empty.

Do not pressurize, cut, weld, braze, solder, drill, grind or expose

containers to heat or sources of ignition.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures

Ensure that eyewash stations and safety showers are close to

the workstation location.

Engineering measures

: Use with local exhaust ventilation.

Prevent vapour buildup by providing adequate ventilation during

and after use.

Eye protection

: Do not wear contact lenses.

Wear as appropriate:

Safety glasses with side-shields
If splashes are likely to occur, wear:

Goggles or face shield, giving complete protection to eyes

Hand protection

: Solvent-resistant gloves

Gloves must be inspected prior to use.

Replace when worn.

Skin and body protection

: Wear as appropriate:

Solvent-resistant apron

Flame retardant antistatic protective clothing.

If splashes are likely to occur, wear:

Protective suit

Respiratory protection

: In case of insufficient ventilation, wear suitable respiratory

equipment.

For rescue and maintenance work in storage tanks use

self-contained breathing apparatus.

Use NIOSH approved respiratory protection.

Hygiene measures

: When using do not eat, drink or smoke.

Wash hands before breaks and immediately after handling the

product.

Keep working clothes separately.

Do not swallow.

Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

This material has an established AIHA ERPG exposure limit.



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The current list of ERPG exposure limits can be found at http://www.aiha.org/insideaiha/GuidelineDevelopment/ERPG/D ocuments/2011erpgweelhandbook_table-only.pdf.

Exposure	Guidel	ines
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Exposure Guide	lines				
Components	CAS-No.	Value	Control parameters	Upda te	Basis
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	(250 ppm)	2008	ACGIH: US. ACGIH Threshold Limit Values
Methanol	67-56-1	SKIN_DE S : Skin designati on:	Can be absorbed through the skin.	2008	ACGIH: US. ACGIH Threshold Limit Values
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	SKIN_DE S : Skin designati on:	Can be absorbed through the skin.	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Methanol	67-56-1	STEL : Short term exposure limit	325 mg/m3 (250 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards



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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	TWA : time weighted average	260 mg/m3 (200 ppm)	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	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)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state

: liquid, clear

Color

: colourless

Odor

: slight alcohol-like

pH

: Note: Not applicable

Melting point/freezing point : Note: Not applicable

Boiling point/boiling range : 64.7 °C

Flash point

: 52 °F (11 °C)



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Method: closed cup

Evaporation rate

: ca. 5

Method: Compared to Butyl acetate.

Lower explosion limit : 6 %(V)

Upper explosion limit : 36 %(V)

Vapor pressure : 129.32 hPa

at 20 °C(68 °F)

Vapor density

: 1.11 Note: (Air = 1.0)

Density

: 0.792 g/cm3 at 20 °C

Water solubility

: Note: completely soluble

Ignition temperature : 464 °C

Molecular weight

: 32.04 g/mol

SECTION 10. STABILITY AND REACTIVITY

Chemical stability : Stable under recommended storage conditions.

reactions

Possibility of hazardous : Hazardous polymerisation does not occur.

Conditions to avoid

: Heat, flames and sparks.

Keep away from direct sunlight.



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Incompatible materials to

avoid

: Strong oxidizing agents

Aluminium

Magnesium

May attack many plastics, rubbers and coatings.

Hazardous decomposition

products

: In case of fire hazardous decomposition products may be

produced such as: Carbon monoxide Carbon dioxide (CO2)

Formaldehyde

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

: LD50: 5,628 mg/kg

Species: Rat

Acute inhalation toxicity

: LC50: 64000 ppm

Exposure time: 4 h

Species: Rat

Acute dermal toxicity

: LD50: 15,800 mg/kg

Species: Rabbit

Skin irritation

: Species: Rabbit

Classification: irritating Exposure time: 24 h

Eye irritation

: Species: rabbit eye

Classification: irritating

Repeated dose toxicity

: Species: Rat

Application Route: Inhalation Test substance: Methanol

Note: Developmental Toxicity NOAEL (maternal toxicity) 10,000 ppm NOAEL (developmental toxicity) 5,000 ppm

Skeletal and visceral malformations.



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Genotoxicity in vitro : Note: In vitro tests did not show mutagenic effects

Genotoxicity in vivo : Note: In vivo tests did not show mutagenic effects

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish : LC50: 29,400 mg/l

Exposure time: 96 h

Species: Fathead minnow

Toxicity to daphnia and other : LC50: 10,000 mg/l

aquatic invertebrates

Exposure time: 24 h

Species: Daphnia (water flea)

Toxicity to bacteria

: 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

Further information on ecology

Additional ecological

information

: Accumulation in aquatic organisms is unlikely.

The product is readily degradable in the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

: Observe all Federal, State, and Local Environmental

regulations.



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SECTION 14. TRANSPORT INFORMATION

DOT

UN/ID No.

Proper shipping name

: METHANOL

: UN 1230

Class

3

Packing group Hazard Labels

11

3

IATA

UN/ID No.

: UN 1230

Description of the goods : METHANOL Class : 3

Packaging group : II Hazard Labels : 3 (6.1)

Packing instruction (cargo : 364

aircraft)

Packing instruction : 352

(passenger aircraft)

Packing instruction

: Y341

(passenger aircraft)

IMDG

UN/ID No.

: UN 1230

Description of the goods
Class

: UN 1230
: METHANOL
: 3

Packaging group Hazard Labels

: II : 3 (6.1)

EmS Number

: F-E, S-D

Marine pollutant

: no

SECTION 15. REGULATORY INFORMATION

Inventories

US. Toxic Substances : On TSCA Inventory

Control Act

Australia, Industrial

Chemical (Notification and

Assessment) Act

: On the inventory, or in compliance with the inventory

Canada, Canadian

: All components of this product are on the Canadian DSL.



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Environmental Protection Act (CEPA). Domestic Substances List (DSL)

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

Korea. Toxic Chemical Control Law (TCCL) List

: 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

Chemical Substances

China. Inventory of Existing : On the inventory, or in compliance with the inventory

Chemicals (NZIoC), as published by ERMA New Zealand

New Zealand. Inventory of : 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

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:

: 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 contains a chemical known to the State

of California to cause birth defects or other reproductive harm.

Methanol

67-56-1

Massachusetts RTK

: Methanol

67-56-1

New Jersey RTK

: Methanol

67-56-1

Pennsylvania RTK

: Methanol

67-56-1

WHMIS Classification

: B2: Flammable liquid

D1B: Toxic Material Causing Immediate and Serious Toxic

Effects

D2A: Very Toxic Material Causing Other Toxic Effects
D2B: Toxic Material Causing Other Toxic Effects

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required

by the CPR.

SECTION 16. OTHER INFORMATION

		HMIS III	NFPA
Health hazard	:	2*	1
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: 03/19/2014

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group