

Acetonitrile

LC015-2.5

Version 1.0 Revision Date 02/15/2018 Print Date 02/15/2018

SECTION 1. IDENTIFICATION

Product name : Acetonitrile

Number : 000000022782

Product Use Description : Solvent

Manufacturer or supplier's

details

Manufactured by:

Honeywell International Inc. 1953 South Harvey Street Muskegon, MI 49442

USA

Distributed by: VWR International 2360 Argentia Road

Mississauga, Ontario L5N 5Z7

CANADA

For more information call : 1-800-932-5000

(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 : sweet ether-like

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Classification of the substance or mixture

or mixture

Classification of the substance : Flammable liquids, Category 2 Acute toxicity, Category 4, Oral Acute toxicity, Category 4, Inhalation

Eye irritation, Category 2A

Specific target organ toxicity - single exposure, Category 1,

Central nervous system

GHS Label elements, including precautionary statements

Symbol(s)







Signal word : Danger

: Highly flammable liquid and vapour. Hazard statements

Harmful if swallowed or if inhaled Causes serious eye irritation. Causes damage to organs.

: Prevention: Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No

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. Use only outdoors or in a well-ventilated area.

Wear protective gloves/ eve protection/ face protection.

Response:

IF SWALLOWED: Call a POISON CENTER/doctor if you feel

unwell.

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.



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IF exposed: Call a POISON CENTER or doctor/ physician.

Rinse mouth.

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.

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 : C2H3N

Chemical nature : Substance

	Chemical name	CAS-No.	Concentration
Acetonitrile		75-05-8	100.00 %

SECTION 4. FIRST AID MEASURES

Inhalation : 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. Call a physician.

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.

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Ingestion : Do NOT induce vomiting. Never give anything by mouth to an

unconscious person. Immediate medical attention is required.

Notes to physician

Indication of immediate medical attention and

special treatment needed, if

necessary

Treat as cyanide poisoning. Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at

least 48 hours.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO2)

Dry chemical

Alcohol-resistant foam

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:

Hydrogen cyanide (hydrocyanic acid)

Carbon dioxide (CO2), carbon monoxide (CO), oxides of

nitrogen (NOx), dense black smoke.

Special protective equipment

for firefighters

: Wear self-contained breathing apparatus and protective suit.

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 Wear personal protective equipment.

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

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Ensure adequate ventilation.
Remove all sources of ignition.
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.

Discharge into the environment must be avoided.

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 and materials for containment and 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

Precautions for safe

handling

: Wear personal protective equipment.

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

Do not smoke.

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

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.

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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.

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.

Remove and wash contaminated clothing before re-use.

Do not breathe vapours or spray mist.

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Avoid contact with skin, eyes and clothing.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Upda te	Basis
Acetonitrile	75-05-8	TWA: Time weighted average	34 mg/m3 (20 ppm)	07 2009	CAD AB OEL:Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Acetonitrile	75-05-8	TWA:	(20 ppm)	07	CAD BC
		Time		2007	OEL:Canada.
		weighted			British Columbia
		average			OELs.
					(Occupational
					Exposure Limits for
					Chemical
					Substances,
					Occupational Health
					and Safety
					Regulation 296/97,
					as amended)



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Acetonitrile	75-05-8	TWA: Time weighted average	(20 ppm)	03 2011	CAD MB OEL:Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)	
Acetonitrile	75-05-8	SKIN_DE S : Skin designati on:	Can be absorbed through the skin.	03 2011	CAD MB OEL:Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)	
Acetonitrile	75-05-8	SKIN_DE S : Skin designati on:	Can be absorbed through the skin.	12 2007	CAD ON OEL:Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)	
Acetonitrile	75-05-8	TWA : Time weighted average	(20 ppm)	12 2007	CAD ON OEL:Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)	
Acetonitrile	75-05-8	8 HR ACL : 8 hour average contamin ation limit:	(20 ppm)	05 2009	CAD SK OEL:Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)	



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Acetonitrile	75-05-8	SKIN_DE S : Skin designati on:	Can be absorbed through the skin.	05 2009	CAD SK OEL:Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)
Acetonitrile	75-05-8	15 MIN ACL: 15 minute average contamin ation limit:	(30 ppm)	05 2009	CAD SK OEL:Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)
Acetonitrile	75-05-8	STEL : Short term exposure limit	101 mg/m3 (60 ppm)	12 2008	OEL (QUE):Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)
Acetonitrile	75-05-8	TWA : Time weighted average	67 mg/m3 (40 ppm)	12 2008	OEL (QUE):Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Color : colourless

Odor : sweet ether-like

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Odor threshold : Note: no data available

pH : Note: Not applicable

Melting point/range : -46 °C

Boiling point/boiling range : 82 °C at 1,013 hPa

Flash point : 43 °F (6 °C)

Method: open cup

Evaporation rate : 5

Method: Compared to Butyl acetate.

Lower explosion limit : 3 %(V)

Upper explosion limit : 16 %(V)

Vapor pressure : 97.3 hPa

at 20 °C(68 °F)

Vapor density : 1.42 Note: (Air = 1.0)

Density : 0.7822 g/cm3 at 20 °C

Water solubility : Note: completely soluble

Partition coefficient:

n-octanol/water

: Note: no data available

Ignition temperature : 524 °C

Viscosity, dynamic : Note: no data available

Viscosity, kinematic : Note: no data available

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Molecular weight : 41 g/mol

SECTION 10. STABILITY AND REACTIVITY

Chemical stability : Stable under normal conditions.

Possibility of hazardous

Conditions to avoid

reactions

: Hazardous polymerization does not occur.

Heat, flames and sparks.
 Keep away from direct sunlight.

Incompatible materials : Acids

Bases

Oxidizing agents Reducing agents

Sulfites Perchlorates

May attack many plastics, rubbers and coatings.

Hazardous decomposition

products

: In case of fire hazardous decomposition products may be

produced such as:

Hydrogen cyanide (hydrocyanic acid)

Carbon dioxide (CO2), carbon monoxide (CO), oxides of

nitrogen (NOx), dense black smoke.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50: 617 mg/kg

Species: Mouse, male and female Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50: 3587 ppm, vapour

Exposure time: 4 h

Species: Mouse, male and female Method: OECD Test Guideline 403

Acute dermal toxicity : LD50: > 2,000 mg/kg

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Species: Rabbit

Skin irritation : Species: Rabbit

Result: No skin irritation

Method: OECD Test Guideline 404

Exposure time: 4 h

Eye irritation : Species: Rabbit

Result: Irritating to eyes.

Method: OECD Test Guideline 405

Sensitisation : Buehler Test

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

Method: OECD Test Guideline 406

Further information : STOT - single exposure: The substance or mixture is classified

as specific target organ toxicant, single exposure, category 1. May cause convulsions. May cause neurotoxic effects. Based

on Human Evidence.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish : flow-through test

LC50: 1,640 mg/l Exposure time: 96 h

Species: Pimephales promelas (fathead minnow)

Toxicity to algae

Acetonitrile : static test

NOEC: 400 mg/l

Exposure time: 72 h

Species: Phaeodactylum tricornutum

static test

ErC50: 9,696 mg/l

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Exposure time: 72 h

Species: Phaeodactylum tricornutum

Further information on ecology

SECTION 13. DISPOSAL CONSIDERATIONS

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

regulations.

SECTION 14. TRANSPORT INFORMATION

TDG UN/ID No. : UN 1648

> Proper shipping name : ACETONITRILE

Class 3 Packing group Ш Hazard Labels 3

IATA UN/ID No. : UN 1648

UN/ID No.

Description of the goods : ACETONITRILE

Class : 3 Packaging group : II Hazard Labels : 3 Packing instruction (cargo : 364

aircraft)

Packing instruction : 353

(passenger aircraft)

Packing instruction : Y341

(passenger aircraft)

IMDG : UN 1648 UN/ID No.

Description of the goods : ACETONITRILE

Class : 3 : II Packaging group Hazard Labels : 3 EmS Number : F-E, S-D

Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

Inventories

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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 Substances and Hazardous and Nuclear Waste Control

: On the inventory, or in compliance with the inventory

Act

Chemical Substances

China. Inventory of Existing : 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

WHMIS

Components : Acetonitrile 75-05-8

NPRI

Components : Acetonitrile 75-05-8

SECTION 16. OTHER INFORMATION

HMIS III **NFPA**

Health hazard : 2* 2

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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 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.

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group