

# Acetonitrile (014, 015, 016, 017, 018)

000000011306 Version 1.0 0 Revision Date 11/16/2012 Print Date 11/16/2012

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### **Product information**

Trade name : Acetonitrile (014, 015, 016, 017, 018)

Number : 00000011306

Use of the : Solvent

Substance/Mixture

Importer : Chem-Supply Pty Ltd

38-50 Bedford Street GILLMAN SA 5013

For further information, : Phone: (08) 8440 2000

please contact: (Monday-Friday, 9:00am-5:00pm)

Fax: (08) 8440 2001

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

In Australia: +(61)-290372994 (24 hours/day, 7 days/week)

#### 2. HAZARDS IDENTIFICATION

#### Hazardous classification

Classified as dangerous goods according to the ADG Code Classified as hazardous according to criteria of NOHSC.

## R-phrase(s)

Highly flammable.

Harmful by inhalation, in contact with skin and if swallowed.

Irritating to eyes.

# S-phrase(s)

Keep out of the reach of children.

Keep away from sources of ignition - No smoking.

Wear suitable protective clothing and gloves.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C2H3N

Chemical nature : Substance

CAS-No. : 75-05-8

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**Hazardous components** 

Chemical NameCAS-No.ConcentrationAcetonitrile75-05-8<= 100%</td>

### 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.

Ingestion : Call a physician.

Do not induce vomiting without medical advice.

Immediate medical attention is required.

Never give anything by mouth to an unconscious person.

Notes to physician : Treat as cyanide poisoning.

Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours.

### 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

: Highly 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.



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for firefighters

Further information

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

: HAZCHEM Code: 2YE

#### **6. ACCIDENTAL RELEASE MEASURES**

: Wear personal protective equipment. Personal precautions

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.

Avoid breathing vapors, mist or gas. 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.

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).

#### 7. HANDLING AND STORAGE

## Handling

Advice on safe handling : Wear personal protective equipment.

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

Do not smoke. Do not swallow.

Avoid breathing vapors, mist or gas. 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.



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#### **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.

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.

Materials to avoid : Acids, Bases, Oxidizing agents, Reducing agents, Sulfites,

Perchlorates, May attack many plastics, rubbers and coatings.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Acetonitrile	75-05-8	SKIN_DES : Skin designation:	Can be absorbed through the skin.	08 2005	AU OEL: Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
		STEL : Short Term Exposure Limit (STEL):	60 ppm 101 mg/m3	08 2005	AU OEL: Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
		TWA : Time Weighted Average (TWA):	40 ppm 67 mg/m3	08 2005	AU OEL: Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

### **Engineering measures**

Use with local exhaust ventilation.

Prevent vapor buildup by providing adequate ventilation during and after use.



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Personal protective equipment

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.

Hand protection : Solvent-resistant gloves

Gloves must be inspected prior to use.

Replace when worn.

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

Skin and body protection : Wear as appropriate:

Solvent-resistant apron

Flame retardant antistatic protective clothing

If splashes are likely to occur, wear:

Protective suit

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 swallow.

Avoid breathing vapors, mist or gas. Avoid contact with skin, eyes and clothing.

Protective measures : Ensure that eyewash stations and safety showers are close to

the workstation location.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid, clear

Colour : colourless

Odour : sweet ether-like

pH : Note: not applicable

Melting point/freezing point : -46 °C

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

Flash point : 43 °F (6 °C)

Method: open cup



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Evaporation rate : 5

Method: Compared to Butyl acetate.

Lower explosion limit : 3 %(V)

Upper explosion limit : 16 %(V)

Vapour pressure : 97.3 hPa

at 20 °C(68 °F)

Vapour density : 1.42

Note: (Air = 1.0) Density

: 0.7875 g/cm3 at 15 °C

Water solubility : Note: completely soluble

Ignition temperature : 524 °C

Molecular Weight : 41 g/mol

### 10. STABILITY AND REACTIVITY

Chemical stability : Stable under normal conditions.

Possibility of hazardous

Conditions to avoid

reactions

: Hazardous polymerisation does not occur.

: Heat, flames and sparks.

Keep away from direct sunlight.

Incompatible materials to

avoid

: 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:



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Hydrogen cyanide (hydrocyanic acid)

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

nitrogen (NOx), dense black smoke.

#### 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50: 2,460 mg/kg

Species: rat

Acute inhalation toxicity : LC50: 7551 ppm

Exposure time: 8 h Species: rat

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

Species: rabbit

Serious eye damage/eye

irritation

: Species: rabbit

Result: Irritating to eyes.

### 12. Ecological information

## **Toxicity**

Toxicity to fish : flow-through test

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

Species: Pimephales promelas (fathead minnow)

#### 13. DISPOSAL CONSIDERATIONS

Product : In accordance with local and national regulations.

# 14. TRANSPORT INFORMATION

**ADR** 

UN/ID No. : UN 1648

Description of the goods : ACETONITRILE

Class : 3

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Packing group : II
Classification Code : F1
Hazard identification No : 33
Labels : 3

ADG\_ROAD

UN/ID No. : UN 1648

Description of the goods : ACETONITRILE

Class : 3
Packing group : II
Labels : 3

**IATA** 

UN/ID No. : UN 1648
Description of the goods : Acetonitrile

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

aircraft)

Packing instruction : 353

(passenger aircraft)

Packing instruction : Y341

(passenger aircraft)

**IMDG** 

UN/ID No. : UN 1648

Description of the goods : ACETONITRILE

Class : 3
Packing group : II
Labels : 3
EmS Number 1 : F-E
EmS Number 2 : S-D

Marine pollutant : no

HAZCHEM Code: 2YE

### 15. REGULATORY INFORMATION

Symbol(s) : F Highly flammable

: Xn Harmful

R-phrase(s) : R11 Highly flammable.

R20/21/22 Harmful by inhalation, in contact with skin

and if swallowed.

R36 Irritating to eyes.

S-phrase(s) : S 2 Keep out of the reach of children.

S16 Keep away from sources of ignition - No

smoking.

S36/37 Wear suitable protective clothing and

gloves.



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Further information : Classified as dangerous goods according to the ADG Code

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**National regulatory information** 

Standard for the Uniform Scheduling of Medicines and

Poisons

No poison schedule number allocated

Other international regulations

**Notification status** 

US. Toxic Substances

Control Act

: On TSCA Inventory

(Notification and Assessment) Act

Australia. Industrial Chemical : 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 list.

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** 

: 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

#### 16. OTHER INFORMATION

#### Sources of key data used to compile the Safety Data Sheet:

- 1. National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]
- 2. Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]



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- 3. List of Designated Hazardous Substances [NOHSC:10005(1999)]
- 4. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]
- 5. Australian Dangerous Goods Code, No. 6 [National Road Transport Commission]
- 6. Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP), No. 19 [NDPSC: 2004]
- 7. National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]

### **Further information**

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

End of Safety Data Sheet