

**Acetonitrile (BDH1103-19L, BDH1103-204L, BDH1103-4LP, LW)
BDH1105-4LG, BDH1103-4LG)****000000011710**

Version 1

Revision Date 06/15/2012

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Acetonitrile (BDH1103-19L, BDH1103-204L, BDH1103-4LP, LW) BDH1105-4LG, BDH1103-4LG)

MSDS Number : 000000011710

Product Use Description : Solvent

Manufacturer : Honeywell
1953 South Harvey Street
Muskegon, MI 49442

Manufactured for : VWR International LLC
Radnor Corporate Center
Building One
Suite 200
100 Matsonford Road
Radnor PA 19087

For more information call : (Monday-Friday, 8.00am-5:00pm)
1-800-932-5000

In case of emergency call : (24 hours/day, 7 days/week)
1-800-424-9300(USA Only)
For Transportation Emergencies:
1-800-424-9300 (CHEMTREC - Domestic)
1-613-966-6666 (CANUTEC - Canada)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : liquid, clear

Color : colourless

Odor : sweet ether-like

Hazard Summary : Flammable. In use, may form flammable/explosive vapour-air mixture. May be harmful if inhaled. May be harmful if absorbed through skin. May be harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause irritation of the



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gastrointestinal tract. Can cause fatal cyanide poisoning. May cause convulsions. Symptoms may be delayed. Can be absorbed through skin. Repeated exposure may cause skin dryness or cracking.

Potential Health Effects

- Skin** : Irritating to skin.
Can be absorbed through skin.
May be harmful if absorbed through skin.
Can cause fatal cyanide poisoning.
Symptoms may be delayed.
Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering.
- Eyes** : Irritating to eyes.
Causes itching, burning, redness and tearing.
- Ingestion** : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
May cause systemic poisoning with symptoms paralleling those of inhalation.
Can cause fatal cyanide poisoning.
Symptoms may be delayed.
- Inhalation** : Causes respiratory tract irritation.
Inhalation of high vapour concentrations can cause CNS-depression and narcosis.
Causes headache, drowsiness or other effects to the central nervous system.
Can cause fatal cyanide poisoning.
Symptoms may be delayed.
- Chronic Exposure** : Can cause fatal cyanide poisoning.
Causes damage to the kidneys/ liver/ eyes/ brain/ respiratory system/ central nervous system through prolonged or repeated exposure.
Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering.
- Aggravated Medical Condition** : People suffering from pre-existing thyroid conditions may experience adverse effects.
Neurological disorders
Heart disease
Respiratory disorders
Liver disorders


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Target Organs : Kidney disorders
 Skin disorders
 Eye disorders
 : Respiratory system
 Cardiovascular system
 Central nervous system
 Liver
 Kidney

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.

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

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Treatment : 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 (NO_x), dense black smoke.
- Special protective equipment for firefighters : 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.
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.

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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.
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.

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.



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


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Exposure Guidelines–

Components	CAS-No	Value	Control parameters	Update	Basis
Acetonitrile	75-05-8	TWA : time weighted average	(20 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values

		SKIN_DES : Skin designation:	Can be absorbed through the skin.	2008	ACGIH:US. ACGIH Threshold Limit Values
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		REL : Recommended exposure limit (REL):	34 mg/m3 (20 ppm)	2005	NIOSH/GUIDE: US. NIOSH: Pocket Guide to Chemical Hazards
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		PEL : Permissible exposure limit	70 mg/m3 (40 ppm)	02 2006	OSHA_TRANS: US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
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		STEL : Short term exposure limit	105 mg/m3 (60 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
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		TWA : time weighted average	70 mg/m ³ (40 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
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SECTION 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
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)

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Density	: 0.7875 g/cm ³ at 15 °C
Water solubility	: Note: completely soluble
Ignition temperature	: 524 °C
Molecular Weight	: 41.0 g/mol

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	: Heat, flames and sparks. Keep away from direct sunlight.
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: Hydrogen cyanide (hydrocyanic acid) Carbon dioxide (CO ₂), carbon monoxide (CO), oxides of nitrogen (NO _x), dense black smoke.
Hazardous reactions	: Hazardous polymerisation does not occur. Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

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

Acute inhalation toxicity : LC50: 7551 ppm
Exposure time: 8 h
Species: rat

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

Eye irritation : Species: rabbit
Result: Irritating to eyes.

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)

Biodegradability
Acetonitrile : Value: 98 %
Testing period: 28 d
Note: Readily biodegradable.

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

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

Contaminated packaging : Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal.


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SECTION 14. TRANSPORT INFORMATION

DOT UN/ID No. : UN 1648
 Proper shipping name : ACETONITRILE
 Class : 3
 Packing group : II
 Hazard Labels : 3

IATA UN/ID No. : UN 1648
 Description of the goods : ACETONITRILE
 Class : 3
 Packaging group : II
 Hazard Labels : 3
 Packing instruction (cargo aircraft) : 364
 Packing instruction (passenger aircraft) : 353
 Packing instruction (passenger aircraft) : Y341

IMDG UN/ID No. : UN 1648
 Description of the goods : ACETONITRILE
 Class : 3
 Packaging group : II
 Hazard Labels : 3
 EmS Number : F-E
 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 list.



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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

National regulatory information

SARA 302 Components : SARA 302: 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:
: Acetonitrile 75-05-8

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

CERCLA Reportable Quantity : 5000 lbs

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 cancer.
Acrylonitrile 107-13-1

Massachusetts RTK : Acetonitrile 75-05-8

New Jersey RTK : Acetonitrile 75-05-8

Pennsylvania RTK : Acetonitrile 75-05-8

WHMIS Classification : B2: Flammable liquid
D1A: Very Toxic Material Causing Immediate and Serious 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*	2
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



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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.

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Prepared by: Honeywell Performance Materials and Technologies Product Stewardship Group