

**Acetone (BDH1101-4LG, BDH1101-1LP, BDH1101-4LP, BDH1101-204L, BDH1101-19L)****000000011657**

Version 1

Revision Date 06/20/2012

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**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Acetone (BDH1101-4LG, BDH1101-1LP, BDH1101-4LP, BDH1101-204L, BDH1101-19L)

MSDS Number : 000000011657

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 mint-like

Hazard Summary : Extremely flammable. In use, may form flammable/explosive vapour-air mixture. Aspiration hazard if swallowed - can enter lungs and cause damage. May be harmful if absorbed through skin. Irritating to eyes and respiratory system. May cause



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irritation of the gastrointestinal tract. May irritate skin. The product may be absorbed through the skin.

**Potential Health Effects**

- Skin** : May cause skin irritation.  
 May cause systemic poisoning with symptoms paralleling those of inhalation.  
 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.  
 May cause corneal injury.
- Ingestion** : Aspiration hazard if swallowed - can enter lungs and cause damage.  
 May cause irritation of the gastrointestinal tract.  
 May cause systemic poisoning with symptoms paralleling those of inhalation.
- Inhalation** : Causes respiratory tract irritation.  
 Causes headache, drowsiness or other effects to the central nervous system.  
 Inhalation of high vapour concentrations can cause CNS-depression and narcosis.
- Chronic Exposure** : Causes headache, drowsiness or other effects to the central nervous system.  
 Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering.
- Aggravated Medical Condition** : Skin disorders  
 Eye disorders  
 Cardiac irregularities
- Target Organs** : Eyes  
 Skin  
 Respiratory system  
 Central nervous system  
 Heart

**Carcinogenicity**

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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 : C<sub>3</sub>H<sub>6</sub>O

Chemical nature : Substance

Chemical Name	CAS-No.	Concentration
Acetone	67-64-1	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 if irritation develops or persists.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician.

Ingestion : Do not induce vomiting without medical advice. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person. Call a physician.

**Notes to physician**

Treatment : Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Dry chemical  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Cool closed containers exposed to fire with water spray.

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- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during firefighting : Extremely 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 (CO<sub>2</sub>)
- Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions : Wear personal protective equipment. Unprotected persons must be kept away.  
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, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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**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.  
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.



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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 the case of vapour formation use a respirator with an approved filter.  
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 and face 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.

**Exposure Guidelines–**

Components	CAS-No	Value	Control parameters	Update	Basis
Acetone	67-64-1	STEL : Short term exposure limit	(750 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values



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		TWA : time weighted average	(500 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values
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		TWA : time weighted average	(200 ppm)	12 2010	ACGIHLIS_P:U S. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values
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		STEL : Short term exposure limit	(500 ppm)	12 2010	ACGIHLIS_P:U S. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values
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		REL : Recommended exposure limit (REL):	590 mg/m3 (250 ppm)	2005	NIOSH/GUIDE: US. NIOSH: Pocket Guide to Chemical Hazards
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		PEL : Permissible exposure limit	2,400 mg/m3 (1,000 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	2,400 mg/m3 (1,000 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
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		TWA : time weighted average	1,800 mg/m3 (750 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 mint-like

pH : Note: not applicable

Melting point/freezing point : -94.8 °C

Boiling point/boiling range : 56 °C

Flash point : -4 °F (-20 °C)  
Method: closed cup

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Evaporation rate : 12  
Method: Compared to Butyl acetate.

Lower explosion limit : 2 %(V)

Upper explosion limit : 13 %(V)

Vapour pressure : 240 hPa  
at 20 °C(68 °F)

Vapour density : 2.0  
Note: (Air = 1.0)

Density : 0.79 g/cm<sup>3</sup>

Water solubility : Note: completely soluble

Partition coefficient:  
n-octanol/water : POW: 0.58 log Pow: -0.24

Ignition temperature : 465 °C

Molecular Weight : 58.05 g/mol

**SECTION 10. STABILITY AND REACTIVITY**

Conditions to avoid : Heat, flames and sparks.  
Keep away from direct sunlight.

Materials to avoid : Acids  
Aldehydes  
Alkalies  
Amines  
Ammonia


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	Oxidizing agents Reducing agents Chlorine compounds
Hazardous decomposition products	: In case of fire hazardous decomposition products may be produced such as: Carbon monoxide Carbon dioxide (CO <sub>2</sub> )
Hazardous reactions	: Hazardous polymerisation does not occur. Stable under normal conditions.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity	: LD50: 5,800 mg/kg Species: rat
Acute inhalation toxicity	: LC50: 32000 ppm Exposure time: 4 h Species: rat
Acute dermal toxicity	: LD50: > 7,426 mg/kg Species: guinea pig
Skin irritation	: Species: rabbit Result: Mild skin irritation Exposure time: 24 h
Eye irritation	: Species: rabbit Result: irritating
Repeated dose toxicity	: Species: rat NOEL: 19000 ppm Note: 8-Week Inhalation Toxicity Study 5 days/week for 8 weeks Slightly reduced weight gain compared to controls
	: Species: rat NOEL: 100 mg/kg/d Note: 90-Day Oral Toxicity Study increased liver and kidney

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weights

: Species: rat  
Lowest observable effect level: 500 mg/kg/d  
Note: 90-Day Oral Toxicity Study increased liver and kidney weights

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

Toxicity to fish : LC50: 5,540 mg/l  
Exposure time: 96 h  
Species: Oncorhynchus mykiss (rainbow trout)

: LC50: 8,300 mg/l  
Exposure time: 96 h  
Species: Lepomis macrochirus (Bluegill sunfish)

Toxicity to daphnia and other aquatic invertebrates. : LC50: 10 mg/l  
Exposure time: 24 h  
Species: Daphnia magna (Water flea)

Toxicity to algae  
Acetone : EC50: 3,020 mg/l  
Exposure time: 14 d  
Species: Chlorella pyrenoidosa

Toxicity to bacteria : LC50: > 1,000 mg/l  
Species: Bacteria

Biodegradability  
Acetone : anaerobic  
Result: Readily biodegradable  
Value: 78 %  
Method: OECD 301 D

**Further information on ecology**

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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

**SECTION 14. TRANSPORT INFORMATION**

**DOT** UN/ID No. : UN 1090  
Proper shipping name : ACETONE  
Class : 3  
Packing group : II  
Hazard Labels : 3

**IATA** UN/ID No. : UN 1090  
Description of the goods : ACETONE  
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 1090  
Description of the goods : ACETONE  
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


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- 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.
- 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**

- US. Drug Enforcement Administration (DEA) Listed Precursor and Essential Chemicals (21 CFR 1310) : On the United States Drug Enforcement Authority (DEA) List of Precursors and Essential Chemicals

: Acetone 67-64-1

- 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** : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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



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Chronic Health Hazard

**CERCLA Reportable Quantity** : 5000 lbs

**California Prop. 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**Massachusetts RTK** : Acetone 67-64-1

**New Jersey RTK** : Acetone 67-64-1

**Pennsylvania RTK** : Acetone 67-64-1

**WHMIS Classification** : B2: Flammable liquid  
 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**

	<b>HMIS III</b>	<b>NFPA</b>
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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Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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