

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

Version 1

Revision Date 03/17/2009

Print Date 01/03/2011

**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  
1310 Goshen Parkway  
West Chester, PA 19380

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 irritation of the gastrointestinal tract. May irritate skin. The product may be absorbed through the skin. Repeated exposure may cause skin dryness or cracking.

**Potential Health Effects**



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- 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**

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**

Component	CAS-No.	Weight %
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Acetone

67-64-1

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**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 : 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. FIRE-FIGHTING MEASURES**

- Flash point : -20 °C (-4 °F)  
closed cup
- Ignition temperature : 465 °C (869 °F)
- Lower explosion limit : 2.5 %(V)
- Upper explosion limit : 13 %(V)
- Suitable extinguishing media : Dry chemical  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Cool closed containers exposed to fire with water spray.
- Extinguishing media which shall not be used for safety : Do not use a solid water stream as it may scatter and spread fire.




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reasons

Specific hazards during fire fighting : 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 fire-fighters : 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.  
 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.  
 Prevent product from entering drains.  
 Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Methods for cleaning up : Ventilate the area.  
 No sparking tools should be used.  
 Use explosion-proof equipment.  
 Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

**SECTION 7. HANDLING AND STORAGE**
**Handling**

Handling : Wear personal protective equipment.



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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.
- 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 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:



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

**Exposure Guidelines**

Acetone	67-64-1	ACGIH	TWA	500 ppm		
		ACGIH	STEL	750 ppm		
		NIOSH	REL	250 ppm	590 mg/m3	
		OSHA Z1	PEL	1,000 ppm	2,400 mg/m3	
		OSHA Z1A	TWA	750 ppm	1,800 mg/m3	
		OSHA Z1A	STEL	1,000 ppm	2,400 mg/m3	
		US CA OEL	TWA PEL	500 ppm	1,200 mg/m3	
		US CA OEL	Ceiling	3,000 ppm		
		US CA OEL	STEL	750 ppm	1,780 mg/m3	



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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	: liquid, clear
Color	: colourless
Odor	: sweet mint-like
Molecular Weight	: 58.05 g/mol
pH	: not applicable
Melting point/range	: -94.8 °C (-138.6 °F)
Boiling point/boiling range	: 56 °C (133 °F)
Vapor pressure	: 240 hPa at 20 °C (68 °F)
Relative vapour density	: 2.0 (Air = 1.0)
Density	: 0.79 g/cm <sup>3</sup>
Water solubility	: completely soluble
Partition coefficient: n-octanol/water	: POW: 0.58 log Pow: -0.24

**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 Oxidizing agents Reducing agents Chlorine compounds


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- 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 rat  
Dose: 5,800 mg/kg
- Acute dermal toxicity : LD50 guinea pig  
Dose: > 7,426 mg/kg
- Acute inhalation toxicity : LC50 rat  
Dose: 32000 ppm  
Exposure time: 4 h
- Skin irritation : rabbit  
Exposure time: 24 h  
Mild skin irritation
- Eye irritation : rabbit  
irritating
- Repeated dose toxicity : rat 8-Week Inhalation Toxicity Study, 5 days/week for 8 weeks, Slightly reduced weight gain compared to controls  
NOEL: 19000 ppm
- Repeated dose toxicity : rat 90-Day Oral Toxicity Study, increased liver and kidney weights, NOEL  
100mg/kg/d
- Repeated dose toxicity : rat 90-Day Oral Toxicity Study, increased liver and kidney weights, LOEL (Lowest observable effect level)  
500mg/kg/d

**SECTION 12. ECOLOGICAL INFORMATION**





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Toxicity to fish	:	LC50 Species: Oncorhynchus mykiss (rainbow trout) Dose: 5,540 mg/l Exposure time: 96 h
Toxicity to fish	:	LC50 Species: Lepomis macrochirus (Bluegill sunfish) Dose: 8,300 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates.	:	LC50 Species: Daphnia magna (Water flea) Dose: 10 mg/l Exposure time: 24 h

**SECTION 13. DISPOSAL CONSIDERATIONS**

Waste Information: Observe all Federal, State, and Local Environmental regulations.

**SECTION 14. TRANSPORT INFORMATION**

<b>DOT</b>	UN-Number	:	1090
	Proper shipping name	:	Acetone
	Class		3
	Packing group		II
	Hazard Label		3
<b>IATA</b>	UN Number	:	1090
	Description of the goods	:	Acetone
	Class	:	3
	Packaging group	:	II
	Hazard Label	:	3
	Packing instruction (cargo aircraft)	:	307
	Packing instruction (passenger aircraft)	:	305
	Packing instruction (passenger aircraft)	:	Y305
<b>IMDG</b>	Substance No.	:	UN 1090
	Description of the goods	:	Acetone
	Class	:	3
	Packaging group	:	II


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Hazard Label	: 3
EmS Number	: F-E
Marine pollutant	: no

**SECTION 15. REGULATORY INFORMATION**
**Inventories**

EU. EINECS	: On the inventory, or in compliance with the inventory
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). (Can. Gaz. Part II, Vol. 133)	: 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. 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
China. Inventory of Existing Chemical Substances	: On the inventory, or in compliance with the inventory
CH INV - Switzerland	: On the inventory, or in compliance with the inventory
NZIOC - New Zealand	: On the inventory, or in compliance with the inventory

**National regulatory information**

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

: Acetone 67-64-1

**SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard  
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, or any other reproductive defects.

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

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

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

**WHMIS Classification** : B2  
D2B  
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

**Further information**

\* - Chronic health hazard





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