

Acetone (010)

Version 1

Revision Date 01/25/2008

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Acetone
MSDS Number : 000000011300
Product Use Description : Solvent

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

For more information call : 1-800-368-0050
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : Medical: 1-800-498-5701
: **Transportation: 1-800-424-9300 or 703-527-3887**
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : liquid

Color : colourless

Odor : sweet mint-like

Hazard Summary : Extremely flammable. In use, may form flammable/explosive vapour-air mixture. May be harmful if swallowed. May be harmful if absorbed through skin. Irritating to eyes and respiratory system. Causes headache, drowsiness or other effects to the central nervous 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. Do not swallow. Avoid breathing vapors, mist or gas. Avoid contact with skin, eyes and clothing.

Potential Health Effects

Skin : May be harmful if absorbed through 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.

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- Causes itching, burning, redness and tearing.
May cause corneal injury.
- Ingestion** : May be harmful if swallowed.
May cause irritation of the gastrointestinal tract.
May cause systemic poisoning with symptoms paralleling those of inhalation.
May cause lung damage.
- 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 %
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.

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- 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 : If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. 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 (CO₂)
- Extinguishing media which shall not be used for safety reasons : Water may be ineffective.
Do not use a solid water stream as it may scatter and spread fire.
- 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.
Cool closed containers exposed to fire with water spray.
Do not allow run-off from fire fighting to enter drains or water courses.
In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO₂)
water vapour

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Special protective equipment for fire-fighters : In the event of fire and/or explosion do not breathe fumes.
Wear self-contained breathing apparatus and protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Immediately evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Wear personal protective equipment. Unprotected persons must be kept away.
Ensure adequate ventilation.
Remove all sources of ignition.
Vapors may travel to areas away from work site before igniting/flashing back to vapor source.
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.
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 : Handle with care.
Wear personal protective equipment.
Use only in well-ventilated areas.
Keep container tightly closed.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep away from fire, sparks and heated surfaces.
Take precautionary measures against static discharges.
Ensure all equipment is electrically grounded before beginning transfer operations.
No sparking tools should be used.
Use explosion-proof equipment.

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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 : Vapours may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. 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. Container hazardous when empty. Keep product and empty container away from heat and sources of ignition. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Take measures to prevent the build up of electrostatic charge. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Electrical equipment should be protected to the appropriate standard. No sparking tools should be used. Use explosion-proof equipment. No smoking.

Storage

Requirements for storage areas and containers : Storage rooms must be properly ventilated. 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 in area designed for storage of flammable liquids. Protect from physical damage. Store away from incompatible substances.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
 Do not swallow.
 Avoid breathing vapors, mist or gas.
 Avoid contact with skin, eyes and clothing.

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 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 : Handle in accordance with good industrial hygiene and safety practice.
 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.

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	750 ppm	1,780 mg/m3

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US CA OEL	Ceiling	3,000 ppm
US CA OEL	STEL	1,000 ppm 2,400 mg/m3

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid

Color : colourless

Odor : sweet mint-like

Molecular Weight : 58.08 g/mol

pH : no data available

Freezing point : -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

Density : 0.79 g/cm3

Water solubility : completely soluble

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

SECTION 10. STABILITY AND REACTIVITY

Materials to avoid : Acids
Aldehydes
Alkalies
Amines
Ammonia
Oxidizing agents
Reducing agents
Chlorine compounds

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide

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	Carbon dioxide (CO ₂) water vapour
Thermal decomposition	: In case of fire hazardous decomposition products may be produced such as: Carbon dioxide (CO ₂), water vapour, Under conditions giving incomplete combustion, hazardous gases produced may consist of: Carbon oxides, Carbon monoxide
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 oral toxicity	: LD50 mouse Dose: 3,000 mg/kg
Acute oral toxicity	: LD50 rabbit Dose: 5,340 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
Genotoxicity in vitro	: negative

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		Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Genotoxicity in vitro	:	negative Chromosome aberration test in vitro
Genotoxicity in vitro	:	negative Point mutation Mouse lymphoma cells
Genotoxicity in vitro	:	negative DNA cell-binding Assay

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish	:	LC50 Species: Oncorhynchus mykiss (rainbow trout) Dose: 5,540 mg/l Exposure time: 96 h
Toxicity to fish	:	LC50 Species: 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
Toxicity to algae (Component)	:	Component: 67-64-1 Acetone LC50 Species: Dose: > 1 g/l
Toxicity to bacteria (Component)	:	Component: 67-64-1 Acetone EC50 Species: Photobacterium phosphoreum Dose: 14,500 mg/l Exposure time: 15 min

SECTION 13. DISPOSAL CONSIDERATIONS

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

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SECTION 14. TRANSPORT INFORMATION

DOT UN-Number : 1090
 Proper shipping name : Acetone
 Class : 3
 Packing group : II
 Hazard Label : 3

IATA 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

IMDG Substance No. : UN 1090
 Description of the goods : Acetone
 Class : 3
 Packaging group : II
 Hazard Label : 3
 EmS Number : F-E
 Marine pollutant : no

SECTION 15. REGULATORY INFORMATION
Inventories

EU. EINECS : On or in compliance with the inventory

US. Toxic Substances Control Act : On or in compliance with the inventory

Australia. Industrial Chemical (Notification and Assessment) Act : On 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 or in compliance with the inventory

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Korea. Toxic Chemical Control Law (TCCL) List : On or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act : On or in compliance with the inventory

China. Inventory of Existing Chemical Substances : On or in compliance with the inventory

National regulatory information

US. Drug Enforcement Administration (DEA) Listed Precursor and Essential 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

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SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health Hazard	: 0	1
Flammability	: 3	3
Physical Hazard	: 0	
Instability	:	0