

Acetone

**179973-4L**

Version 1.4

Issuing date 12/07/2016

Revision Date 10/28/2022

Print Date 06/01/2023

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name : Acetone

Number : 000000020241

Recommended use of the chemical and restrictions on use : Laboratory chemicals

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH  
Wunstorfer Straße 40  
Seelze, 30926  
Germany

For further information, please contact: : 1-800-368-0050  
+1-231-726-3171  
(Monday-Friday, 9:00am-5:00pm)

**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 Japan: +(81)-345209637

**2. HAZARDS IDENTIFICATION****Classification of the substance or mixture**

Classification of the substance or mixture : Flammable liquids, Category 2  
Eye irritation, Category 2A  
Specific target organ toxicity - single exposure, Category 3

**GHS Label elements, including precautionary statements**

Symbol(s) :



Signal word : Danger

Hazard statements : Highly flammable liquid and vapour.

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Causes serious eye irritation.  
May cause drowsiness or dizziness.

Precautionary statements : **Prevention:**  
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**  
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Call a POISON CENTER/ doctor if you feel unwell.  
If eye irritation persists: Get medical advice/ attention.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:**  
Store in a well-ventilated place. Keep container tightly closed.  
Keep cool.  
Store locked up.

**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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

Chemical nature : Substance

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Chemical name	CAS-No.	Concentration
Acetone	67-64-1	100.00 %
Acetone		

**4. FIRST AID MEASURES**

General advice	: First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.
Inhalation	: Remove to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.
Skin contact	: After contact with skin, wash immediately with plenty of water. Call a physician if irritation develops or persists.
Eye contact	: Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. Consult a physician.
Ingestion	: When swallowed, allow water to be drunk. Do NOT induce vomiting. Call a physician immediately.
Notes to physician	: Treat symptomatically.

**5. FIREFIGHTING MEASURES**

Suitable extinguishing media	: Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry powder
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.

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Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Wear personal protective equipment. Unprotected persons must be kept away.  
Ensure adequate ventilation.  
Remove all sources of ignition.

Environmental precautions : Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up : Ventilate the area.  
Do not use sparking tools.  
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**

Precautions for safe handling : Wear personal protective equipment.  
Use only in well-ventilated areas.

Advice on protection against fire and explosion : Keep product and empty container away from heat and sources of ignition.  
No smoking.  
Take precautionary measures against static discharges.  
Vapours may form explosive mixtures with air.

**Storage**

Conditions for safe storage, including any incompatibilities : Store in area designed for storage of flammable liquids.  
Protect from physical damage.  
Keep containers tightly closed in a dry, cool and well-

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ventilated place.  
Store in original container.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Update	Basis
Acetone Acetone	67-64-1	TL : Threshold limits	(500 ppm)	08 2006	ISHL:Industrial Safety and Health Law OEL
		TWA : Time weighted average	470 mg/m3 (200 ppm)	04 2007	Japan Society for Occupational Health:Japan Society for Occupational Health allowable concentration recommendation value

**Appropriate engineering controls**

Use with local exhaust ventilation.

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

**Individual protection measures, such as personal protective equipment**

- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.  
Recommended Filter type:  
Organic gas and low boiling vapour type
- Hand protection : Impervious butyl rubber gloves  
Gloves must be inspected prior to use.  
Replace when worn.
- Eye protection : Safety glasses with side-shields

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Skin and body protection	: Protective suit
Hygiene measures	: Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. When using do not eat or drink.
Protective measures	: Ensure that eyewash stations and safety showers are close to the workstation location. Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment. Avoid breathing vapours, mist or gas.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state	: liquid
Colour	: colourless
Odour	: characteristic
Odour Threshold	: Note: No data available
pH	: Note: Not applicable
Melting point/range	: -95 °C
Boiling point/boiling range	: 55 - 57 °C at 1,013 hPa
Flash point	: 1 °F (-17 °C) Method: closed cup
Evaporation rate	: Note: No data available
Lower explosion limit	: 2.2 %(V)
Upper explosion limit	: 14.3 %(V)
Vapour pressure	: ca. 240 hPa at 20 °C(68 °F)

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580 hPa  
at 50 °C(122 °F)

Vapour density	: Note: No data available
Density	: 0.79 g/cm <sup>3</sup> at 20 °C
Water solubility	: Note: completely miscible
Partition coefficient: n-octanol/water	: log Pow: -0.24
Ignition temperature	: 465 °C Method: DIN 51794
Auto-ignition temperature	: Note: not auto-flammable
Decomposition temperature	: 236 °C Note: Decomposition temperature, At normal pressure may be distilled without decomposition.
Viscosity, dynamic	: 0.32 mPa.s at 20 °C
Viscosity, kinematic	: Note: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: 58.08 g/mol

**10. STABILITY AND REACTIVITY**

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Heat
Incompatible materials to avoid	: Plastic materials can be attacked. Strong oxidizing agents Bases Strong acids

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Alkali metals  
Alkaline earth metals

Oxidizing solids  
Oxidizing liquids

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:  
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

**11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

Acute oral toxicity : LD50: 5,800 mg/kg  
Species: Rat

Acute inhalation toxicity : LC50: 76 mg/l , vapour  
Exposure time: 4 h  
Species: Rat, female

Acute dermal toxicity : LD50: > 7,400 mg/kg  
Species: Rat

Skin corrosion/irritation : Species: Rabbit  
Result: slight irritation  
Method: Draize Test

Serious eye damage/eye irritation : Species: Rabbit  
Result: Irritating to eyes.

Skin sensitisation : Species: Guinea pig  
Classification: non-sensitizing

Respiratory sensitisation : Note: No data available

Repeated dose toxicity : Species: Rat, male  
Application Route: Oral  
Exposure time: 90 d  
NOAEL (No observed adverse effect level): 900 mg/kg  
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Method: OECD Test Guideline 408

Germ cell mutagenicity : Note: No data available

Carcinogenicity : Note: No data available

Reproductive toxicity : Note: No data available

Specific target organ toxicity  
- single exposure : Assessment :The substance or mixture is classified as specific  
target organ toxicant, single exposure, category 3 with  
narcotic effects.

Specific target organ toxicity  
- repeated exposure : Note :No data available

Aspiration toxicity : No data available

**12. ECOLOGICAL INFORMATION****Aquatic and ecotoxicity**

Toxicity to fish : LC50: 6,210 mg/l  
Exposure time: 96 h  
Species: Pimephales promelas (fathead minnow)

: LC50: 5,540 mg/l  
Exposure time: 96 h  
Species: Oncorhynchus mykiss (rainbow trout)  
Method: OECD Test Guideline 203

Toxicity to daphnia and other  
aquatic invertebrates : LC50: 8,800 mg/l  
Exposure time: 48 h  
Species: Daphnia pulex (Water flea)

Toxicity to algae : static test  
NOEC: 530 mg/l  
Exposure time: 8 d  
Species: Microcystis aeruginosa (blue-green algae)

Toxicity to bacteria : EC50: 1,700 mg/l

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Exposure time: 16 h

Species: Bacteria

**Persistence and degradability**

Biodegradability : Result: Readily biodegradable  
Value: 90 %

**Bioaccumulative potential**

Bioaccumulation : Bioconcentration factor (BCF): 3  
Note: Bioaccumulation is unlikely.

**Mobility in soil**

Mobility : Note: No data available

Biochemical Oxygen Demand (BOD) : Value: 1,760 mg/g

Chemical Oxygen Demand (COD) : Value: 2,070 mg/g

Adsorbed organic bound halogens (AOX) : Note: Product does not contain any organic halogens.

**13. DISPOSAL CONSIDERATIONS**

WDPCL Waste Disposal and Public Cleansing Law : Specially Controlled Industrial Waste

Disposal methods : In accordance with local and national regulations.

**14. TRANSPORT INFORMATION****ADR**

UN/ID No. : UN 1090

Description of the goods : ACETONE

Class : 3

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Packing group : II  
Classification Code : F1  
Hazard Identification Number : 33  
Labels : 3

**IATA**

UN/ID No. : UN 1090  
Description of the goods : Acetone  
Class : 3  
Packing group : II  
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  
Packing group : II  
Labels : 3  
EmS Number 1 : F-E  
EmS Number 2 : S-D

Marine pollutant : no

**15. REGULATORY INFORMATION****National regulatory information**

Substances Subject to be :  
Notified Names Threshold Concentration: 0.1 % wt 17  
JP MSDSD

Substances Subject to be : Article 18  
Indicated Names Threshold limits: 1 % wt 1.3  
JPISHL LR

Vessel Safety Law : Flammable liquids (Article 2 and 3 of rules on shipping and  
JP VSL storage of dangerous goods and its Attached Table 1)

Aviation Law : Flammable liquid (Article 194 of The Enforcement Rules of  
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JP AVL

Aviation Law and its Attached Table 1)

Fire Service Law : Group 4 Flammable liquids  
Type 1 petroleums  
Hazardous rank II  
Water soluble  
Keep away from fire

Poisonous and Deleterious : Not relevant  
Substances Control Law

**Other international regulations****Notification status**

US. Toxic Substances : On TSCA Inventory  
Control Act

Australia. Inventory of : On the inventory, or in compliance with the inventory  
Industrial Chemicals (AIIC),  
as amended

Canada. Canadian : All components of this product are on the Canadian DSL  
Environmental Protection Act  
(CEPA). Domestic  
Substances List (DSL)

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals : On the inventory, or in compliance with the inventory  
Inventory (KECI)

Philippines. Inventory of : On the inventory, or in compliance with the inventory  
Chemicals and Chemical  
Substances (PICCS)

China. Inventory of Existing : On the inventory, or in compliance with the inventory  
Chemical Substances  
(IECSC)

New Zealand. Inventory of : On the inventory, or in compliance with the inventory  
Chemicals (NZIoC), as

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published by ERMA New  
Zealand

Taiwan Chemical Substance : On the inventory, or in compliance with the inventory  
Inventory (TCSI)

## 16. OTHER INFORMATION

	HMIS III	NFPA
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 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 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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