

Safety Data Sheet

according to Regulation (EC) No 1907/2006

1442949 Acetone

Revision date: 13.02.2018

Product code: 1442949

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

1442949 Acetone

Further trade names

Merck Art. 100014

CAS No: 67-64-1
Index No: 606-001-00-8
EC No: 200-662-2

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Water analysis

1.3. Details of the supplier of the safety data sheet

Company name: HACH LANGE GmbH
Street: Willstätterstr. 11
Place: D-40549 Düsseldorf
Telephone: +49 (0)211 5288-383
e-mail: SDS@hach.com
Internet: www.de.hach.com
Responsible Department: HACH LANGE Ltd.
5, Pacific Way
Salford Manchester M50 1DL - United Kingdom
Tel. +44 (0) 161 872 1487 * Fax +44 (0) 161 848 7324
e-Mail: info-uk@hach.com

HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
IRL-Dublin 12
Tel. +353 (0)1 4602522
e-Mail: info-ie@hach.com

1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Flammable liquid: Flam. Liq. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Highly flammable liquid and vapour.

Causes serious eye irritation.

May cause drowsiness or dizziness.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

acetone; propan-2-one; propanone

Signal word: Danger

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Pictograms:



Hazard statements

- H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P304+P312 IF INHALED: Call a doctor if you feel unwell.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local regulation.

Special labelling of certain mixtures

For use in industrial installations only.

Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.1. Substances

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
67-64-1	acetone; propan-2-one; propanone			100 %
	200-662-2	606-001-00-8		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off all contaminated clothing immediately.
 Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air.
 If symptoms persist, call a physician.

After contact with skin

Wash off immediately with plenty of water for at least 15 minutes.
 Take off all contaminated clothing immediately.

After contact with eyes

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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After ingestion

Aspiration hazard if swallowed - can enter lungs and cause damage.

Do NOT induce vomiting.

Consult a physician. Show this safety data sheet to the doctor in attendance.

4.2. Most important symptoms and effects, both acute and delayed

irritant effects, Drowsiness, Dizziness, narcosis, Nausea, Vomiting, Stomach/intestinal disorders, headache, Tiredness, Salivation, Coma, Corneal opacity

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry powder, Carbon dioxide (CO₂), Alcohol-resistant foam

Unsuitable extinguishing media

No Limit

5.2. Special hazards arising from the substance or mixture

Combustible material

Vapours are heavier than air and may spread along floors.

Vapours may form explosive mixtures with air.

Pay attention to flashback.

Fire may liberate hazardous vapours.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.

Do not breathe vapours, mist or gas.

Ensure adequate ventilation.

Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

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).

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Advice on safe handling

Ventilators required at emission site. Use only in well-ventilated areas. Do not breathe vapours/dust.
Observe label precautions.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.
Take measures to prevent the build up of electrostatic charge.

Further information on handling

Observe label precautions.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed in a dry and well-ventilated place.
Keep away from heat and sources of ignition.
Protect against light.
Storage temperature: 5-25 °C

Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

7.3. Specific end use(s)

Reagent for analysis

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
67-64-1	Acetone	500	1210		TWA (8 h)	WEL
		1500	3620		STEL (15 min)	WEL

Additional advice on limit values

None known.

8.2. Exposure controls**Appropriate engineering controls**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
See also section 7.1

Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Wash hands before breaks and after work.
Take off all contaminated clothing immediately.

Eye/face protection

Safety glasses with side-shields

Hand protection

Use barrier skin cream.

Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

In case of full contact:

Glove material : butyl-rubber

Layer thickness: > 0,7 mm

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Break through time: 480 min

In case of contact through splashing:

Glove material : Latex gloves

Layer thickness: > 0,6 mm

Break through time: >10 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.

Skin protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. respirator with AX filter

Environmental exposure controls

Do not flush into surface water or sanitary sewer system.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	like fruit

pH-Value (at 20 °C):	5-6 (395g/l)
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Changes in the physical state

Melting point:	-95,4 °C
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Initial boiling point and boiling range:	56,2 °C
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Sublimation point:	not applicable
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Softening point:	not applicable
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Pour point:	No information available.
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:	No information available.
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Flash point:	< -20 °C	DIN 51755
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Sustaining combustion:	No data available
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Flammability

Solid:	not applicable
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Gas:	not applicable
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Explosive properties

Not explosive

Lower explosion limits:	2,6 vol. %
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Upper explosion limits:	12,8 vol. %
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Ignition temperature:	465 °C	DIN 51794
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Auto-ignition temperature

Solid:	No information available.
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Gas:	No information available.
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Decomposition temperature:	No information available.
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Oxidizing properties

No information available.

Test method

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Vapour pressure: (at 20 °C)	233 hPa
Vapour pressure:	No information available.
Density (at 20 °C):	0,79 g/cm ³
Bulk density:	No information available.
Water solubility: (at 20 °C)	soluble 8 g/L

Solubility in other solvents

No information available.

Partition coefficient: No information available.

Viscosity / dynamic:
(at 20 °C) 0,32 mPa·s

Viscosity / kinematic: No information available.

Flow time: No information available.

Vapour density:
(at 20 °C) 2,01

Evaporation rate: No information available.

Solvent separation test: No information available.

Solvent content: No information available.

9.2. Other information

Solid content: No information available.

log Pow: -0,24 Bioaccumulation is unlikely.

SECTION 10: Stability and reactivity**10.1. Reactivity**

Vapours may form explosive mixtures with air.

10.2. Chemical stability

Sensitivity to light, Sensitive to air.

10.3. Possibility of hazardous reactions

Can become highly flammable in use.

Reacts with the following substances: Carbon, Strong oxidizing agents, Reducing agents, Nitric acid, Fluorine

Combustion/explosion hazards: Halogenated compounds, Chloroform, H₂O₂

Exothermic reaction : Bromine, Alkali metals ,Halogenated hydrocarbon

10.4. Conditions to avoid

Keep away from heat.

10.5. Incompatible materials

Rubber products

10.6. Hazardous decomposition products

Under fire conditions:

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

No toxicology information is available.

Acute toxicity

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Toxic by inhalation.
Harmful if swallowed.

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
67-64-1	acetone; propan-2-one; propanone					
	oral	LD50 mg/kg	5800	Rat	RTECS	
	dermal	LD50 mg/kg	20000	Rabbit	IUCLID	
	inhalation (4 h) vapour	LC50	76 mg/l	Rat		

Irritation and corrosivity

May cause eye and skin irritation.

Sensitising effects

No sensitisation responses were observed.

Carcinogenic/mutagenic/toxic effects for reproduction

No information available.

STOT-single exposure

Vapours may cause drowsiness and dizziness.

STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

No information available.

Specific effects in experiment on an animal

No toxicology information is available.

Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information
12.1. Toxicity

Do not flush into surface water or sanitary sewer system.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
67-64-1	acetone; propan-2-one; propanone						
	Acute fish toxicity	LC50 mg/l	5540	96 h	Onchorhynchus mykiss		
	Acute crustacea toxicity	EC50 mg/l	6100	48 h	Daphnia magna		

12.2. Persistence and degradability

91%; 28d (IUCLID)

Ready biodegradability

Biochemical oxygen demand within 5 days (BOD5) = 1850 mg/g (IUCLID)

Chemical Oxygen Demand (COD): 2070 mg/g

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water

log Pow -0,24

Bioaccumulation is unlikely.

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Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
67-64-1	acetone; propan-2-one; propanone	-0,24

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

In accordance with local and national regulations.

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Contaminated packaging

The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number:	UN1090
14.2. UN proper shipping name:	ACETONE
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3



Classification code:	F1
Limited quantity:	1 L
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

Other applicable information (land transport)

Excepted Quantities: E1

Excepted Quantities: E2

Inland waterways transport (ADN)**Other applicable information (inland waterways transport)**

Not tested

Marine transport (IMDG)

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14.1. UN number: UN1090
14.2. UN proper shipping name: ACETONE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3



Marine pollutant: --
Special Provisions: -
Limited quantity: 1 L
EmS: F-E, S-D

Other applicable information (marine transport)

Excepted Quantities: E1
Excepted Quantities: E2

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN1090
14.2. UN proper shipping name: ACETONE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3



Limited quantity Passenger: 1 L
IATA-packing instructions - Passenger: 353
IATA-max. quantity - Passenger: 5 L
IATA-packing instructions - Cargo: 364
IATA-max. quantity - Cargo: 60 L

Other applicable information (air transport)

Excepted Quantities: E1
Passenger-LQ: Y680
Excepted Quantities: E2
Passenger-LQ: Y341

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

None known.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information****Additional information**

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

National regulatory information

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Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

Revision: 13.02.2018

Safety datasheet sections which have been updated: 2, 8, 11, 15

Revision: 06.08.2013

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
EUH066 Repeated exposure may cause skin dryness or cracking.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.