



Harmony in
Chemistry

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Trade name : Aceton (066120330000-0201)
Revision date : 02.06.2016
Print date : 27.04.2017

Version (Revision) : 14.0.0 (13.1.0)

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Aceton
ACETONE ; CAS No. : 67-64-1 ; EC No. : 200-662-2 ; INDEX No. : 606-001-00-8 ; REACH registration No. : 01-2119471330-49

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Coatings and paints, thinners, paint removers
Solvent

1.3 Details of the supplier of the safety data sheet

Supplier : Chemische Werke Kluthe
Werk Oberhausen
Street : Feldstraße 55
Postal code/city : D 46149 Oberhausen
Telephone : +49208 / 9948-166
Telefax : +49208 / 9948-151
Information contact : sds.ob@kluthe.com

1.4 Emergency telephone number

+49177 / 2144737 (24 h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Eye Irrit. 2 ; H319 - Serious eye damage/eye irritation : Category 2 ; Causes serious eye irritation.
Flam. Liq. 2 ; H225 - Flammable liquids : Category 2 ; Highly flammable liquid and vapour.
STOT SE 3 ; H336 - STOT-single exposure : Category 3 ; May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Flame (GHS02) · Exclamation mark (GHS07)

Signal word

Danger

Hazard statements

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

Precautionary statements

P102 Keep out of reach of children.



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P101	If medical advice is needed, have product container or label at hand.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405	Store locked up.
P501	Dispose of contents/container according to local regulations

Supplemental Hazard information (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

KETONE

3.1 Substances

Substance name : ACETONE

INDEX No. : 606-001-00-8

EC No. : 200-662-2

REACH No. : 01-2119471330-49

CAS No. : 67-64-1

Purity : $\geq 90 - < 100$ % [mass]

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove affected person from the danger area and lay down. Never give anything by mouth to an unconscious person or a person with cramps. If unconscious place in recovery position and seek medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of respiratory tract irritation, consult a physician.

In case of skin contact

Change contaminated, saturated clothing. After contact with skin, wash immediately with plenty of water and soap. Rub greasy ointment into the skin.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Do NOT induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Let water be drunken in little sips (dilution effect).

4.2 Most important symptoms and effects, both acute and delayed

Dizziness Headache Impairment of vision Nausea Vomiting

4.3 Indication of any immediate medical attention and special treatment needed

None



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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam Carbon dioxide (CO₂) Extinguishing powder Water spray

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing.

5.4 Additional information

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. Remove all sources of ignition. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Provide adequate ventilation. See protective measures under point 7 and 8.

6.2 Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal. Clear contaminated areas thoroughly.

6.4 Reference to other sections

None

SECTION 7: Handling and storage



7.1 Precautions for safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. Only use the material in places where open light, fire and other flammable sources can be kept away.

Protective measures

All work processes must always be designed so that the following is excluded: Inhalation of vapours or spray/mists
Take precautionary measures against static discharges.

Measures to prevent fire

Keep away from sources of ignition. - No smoking. Usual measures for fire prevention. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Provide earthing of containers, equipment, pumps and ventilation facilities. Use only antistatically equipped (spark-free) tools. Wear anti-static footwear and clothing Take precautionary measures against static



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discharges.

Measures to prevent aerosol and dust generation

Vapours/aerosols should be exhausted directly at the point of origin. Use only in well-ventilated areas.

Environmental precautions

Shafts and sewers must be protected from entry of the product.

7.2 Conditions for safe storage, including any incompatibilities

Hints on joint storage

Storage class (VCI): 3

Storage class (TRGS 510) : 3

7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

ACETONE ; CAS No. : 67-64-1

Limit value type (country of origin) : TRGS 900 (D)

Limit value : 500 ppm / 1200 mg/m³

Peak limitation : 2(I)

Remark : Y

Version : 04.11.2017

Limit value type (country of origin) : TWA (EC)

Limit value : 500 ppm / 1210 mg/m³

Version : 08.06.2000

Biological limit values

ACETONE ; CAS No. : 67-64-1

Limit value type (country of origin) : TRGS 903 (D)

Parameter : Acetone / Urine (U) / End of exposure or end of shift

Limit value : 80 mg/l

Version : 31.03.2004

DNEL/DMEL and PNEC values

DNEL/DMEL

Limit value type : DNEL Consumer (systemic)

Exposure route : Dermal

Exposure frequency : Langzeit - systemisch

Limit value : 62 mg/kg

Limit value type : DNEL Consumer (systemic)

Exposure route : Inhalation

Exposure frequency : Langzeit - systemisch

Limit value : 200 mg/m³

Limit value type : DNEL Consumer (systemic)

Exposure route : Oral

Exposure frequency : Langzeit - systemisch

Limit value : 62 mg/kg

Limit value type : DNEL worker (local)

Exposure route : Inhalation

Exposure frequency : Langzeit - lokal

Limit value : 2420 mg/m³



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Limit value type :	DNEL worker (systemic)
Exposure route :	Dermal
Exposure frequency :	Langzeit - systemisch
Limit value :	186 mg/kg
Limit value type :	DNEL worker (systemic)
Exposure route :	Inhalation
Exposure frequency :	Langzeit - systemisch
Limit value :	1210 mg/m ³
Limit value type :	DNEL worker (systemic)
Exposure route :	Inhalation
Exposure frequency :	Kurzzeit - systemisch
Limit value :	1210 mg/m ³

PNEC

Limit value type :	PNEC aquatic, freshwater
Limit value :	10,6 mg/l
Limit value type :	PNEC aquatic, marine water
Limit value :	1,06 mg/l
Limit value type :	PNEC zeitweise Freisetzung
Exposure route :	sporadische Freisetzung
Limit value :	21 mg/l
Limit value type :	PNEC sediment, freshwater
Limit value :	30,04 mg/kg
Limit value type :	PNEC sediment, marine water
Limit value :	3,04 mg/kg
Limit value type :	PNEC soil, freshwater
Limit value :	29,5 mg/kg
Limit value type :	PNEC sewage treatment plant (STP)
Limit value :	100 mg/l

8.2 Exposure controls



Personal protection equipment

Eye/face protection

Eye glasses with side protection

Skin protection

Hand protection

Suitable gloves type : Gloves with long cuffs

Suitable material : Butyl caoutchouc (butyl rubber)

Breakthrough time : >= 480 min

Thickness of the glove material : 0,5 mm

Recommended glove articles : DIN EN 374

Additional hand protection measures : Check leak tightness/impermeability prior to use. Do not wear gloves near rotary machines and tools. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Remark : The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.



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Body protection

lab coat Overall

Suitable protective clothing : For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes). Chemical resistant safety shoes Only wear fitting, comfortable and clean protective clothing.

Required properties : antistatic. flame-resistant heat-resistant

Recommended material : Natural fibres (e.g. cotton) heat-resistant synthetic fibres

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Respiratory protection necessary at: exceeding exposure limit values / aerosol or mist formation.

Suitable respiratory protection apparatus

Filtering device (full mask or mouthpiece) with filter : AX

General health and safety measures

Wash hands before breaks and after work. Apply skin care products after work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : colourless

Odour : Acetone

Safety relevant basis data

Melting point/melting range :		-94,7	°C	
Initial boiling point and boiling range :	(1013 hPa)	55,8 - 56,6	°C	
Decomposition temperature :		No data available		
Flash point :	approx.	-18,0	°C	DIN 51755 part 1
Ignition temperature :		465,0	°C	
Oxidising liquids :		No data available.		
Lower explosion limit :		2,0	Vol-%	
Upper explosion limit :		14,3	Vol-%	
Explosive properties :		No data available.		
Vapour pressure 20°C):	(20 °C)	240,0	hPa	
Density :	(20 °C) approx.	0,791	g/cm ³	
Water solubility :	(20 °C)	miscible		
pH-value:	(20 °C / 10 g/l)	5,0 - 6,0		
pH-value:	(20 °C / conc.)	not applicable		
log P O/W :		-24,0		
Cinematic viscosity :	(40 °C)	<	20,5	mm ² /s
Odour threshold :			47,5	mg/m ³
Relative vapour density :	(20 °C)		2,0	(air = 1)
Vapourisation rate :			2,0	(Ether = 1)
Maximum VOC content (EC) :	(20 °C)	100,0	Wt %	gem. RL 1999/13/EG
Max. VOC content (Decopaint):	(20 °C)	100,0	Wt %	gem. RL 2004/42/EG

9.2 Other information

no more data available

SECTION 10: Stability and reactivity



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10.1 Reactivity

reaction with: Base

10.2 Chemical stability

Stable under recommended storage and handling conditions(See section 7).

10.3 Possibility of hazardous reactions

Formation of explosive mixtures with: Air. possible

10.4 Conditions to avoid

Heat, sparks, flames and other ignition sources.

10.5 Incompatible materials

Alkali (lye), concentrated. Acid, concentrated. Oxidising agent, strong.

10.6 Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Based on available data, the classification criteria are not met.

Acute oral toxicity

Parameter :	LD50
Exposure route :	Oral
Species :	Rat
Effective dose :	5800 mg/kg
Method :	OECD 401

Acute dermal toxicity

Parameter :	LD50
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	> 15800 mg/kg

Acute inhalation toxicity

Parameter :	LC50
Exposure route :	Inhalation
Species :	Rat
Effective dose :	76 mg/l
Exposure time :	4 h

Irritant and corrosive effects

Primary irritation to the skin

Based on available data, the classification criteria are not met.

Irritation to eyes

Causes serious eye irritation.

Sensitisation

Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.



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Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

11.3 Symptoms related to the physical, chemical and toxicological characteristics

There are no data available on the preparation/mixture itself.

11.4 Other adverse effects

Prolonged or repeated contact with skin or mucous membrane result in irritation symptoms such as redness, blistering, dermatitis, etc. Has degreasing effect on the skin.

11.5 Additional information

The product is classified and labelled according to EC directives or corresponding national laws. Classification according to Regulation (EC) No 1272/2008 [CLP] Toxicological data are not available.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter : LC50
Species : Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter : Süßwasser
Effective dose : 5540 mg/l
Exposure time : 96 h
Method : statischer Test

Parameter : LC50
Species : Alburnus alburnus (alburnum)
Evaluation parameter : Meerwasser
Effective dose : 11000 mg/l
Exposure time : 96 h
Method : statischer Test

Acute (short-term) daphnia toxicity

Parameter : LC50
Species : Daphnia pulex (water flea)
Evaluation parameter : Süßwasser
Effective dose : 8800 mg/l
Exposure time : 48 h
Method : statischer Test

Parameter : LC50
Species : Artemia salina
Evaluation parameter : Meerwasser
Effective dose : 2100 mg/l
Exposure time : 24 h
Method : statischer Test



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Chronic (long-term) daphnia toxicity

Parameter : NOEC
Species : Daphnia magna (Big water flea)
Evaluation parameter : Süßwasser
Effective dose : 2212 mg/l
Exposure time : 28 d

Acute (short-term) algae toxicity

Parameter : NOEC
Species : Microcystis aeruginosa
Evaluation parameter : Süßwasser
Effective dose : 530 mg/l
Exposure time : 8 d
Method : statischer Test
Parameter : NOEC
Species : Prorocentrum minimum
Evaluation parameter : Meerwasser
Effective dose : 430 mg/l
Exposure time : 96 h

Bacteria toxicity

Parameter : EC12
Species : Belebtschlamm
Effective dose : 1000 mg/l
Exposure time : 30 min

12.2 Persistence and degradability

Biodegradation

Parameter : Biodegradation
Inoculum : Degree of elimination
Effective dose : 91 %
Exposure time : 28 d
Evaluation : Readily biodegradable (according to OECD criteria).
Method : OECD 301A/ ISO 7827/ EEC 92/69/V, C.4-A
Parameter : BOD (% of ThOD)
Effective dose : 84 %
Parameter : DOC reduction
Effective dose : > 70 %

12.3 Bioaccumulative potential

Parameter : Partition coefficient n-octanol /water (log P O/W)
Concentration : < 1
Evaluation : niedriges Bioakkumulationspotential

Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

12.4 Mobility in soil

If product enters soil, it will be mobile and may contaminate groundwater.

Adsorption/Desorption

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Other adverse effects

No information available.

12.7 Additional ecotoxicological information

None



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SECTION 13: Disposal considerations

Dispose according to legislation.

13.1 Waste treatment methods

Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

Waste code (91/689/EEC) : 07 01 04*

13.2 Additional information

None

SECTION 14: Transport information

14.1 UN number

UN 1090

14.2 UN proper shipping name

Land transport (ADR/RID)

ACETONE

Sea transport (IMDG)

ACETONE

Air transport (ICAO-TI / IATA-DGR)

ACETONE

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) : 3
Classification code : F1
Hazard identification number (Kemler No.) : 33
Tunnel restriction code : D/E
Special provisions : LQ 1 | · E 2
Hazard label(s) : 3

Sea transport (IMDG)

Class(es) : 3
EmS-No. : F-E / S-D
Special provisions : LQ 1 | · E 2
Hazard label(s) : 3

Air transport (ICAO-TI / IATA-DGR)

Class(es) : 3
Special provisions : E 2
Hazard label(s) : 3

14.4 Packing group

II

14.5 Environmental hazards

Land transport (ADR/RID) : No

Sea transport (IMDG) : No

Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user

None



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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Water hazard class (WGK)

Class : 1 (Slightly hazardous to water) Classification according to VwVwS

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information

16.1 Indication of changes

08. Occupational exposure limit values · 11. Primary irritation to the skin · 11. Sensitisation · 11. Overall Assessment on CMR properties · 11. STOT-single exposure · 11. Aspiration hazard · 11. Toxicokinetics, metabolism and distribution

16.2 Abbreviations and acronyms

None

16.3 Key literature references and sources for data

None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

No information available.

16.4 Relevant H- and EUH-phrases (Number and full text)

None

16.5 Training advice

None

16.6 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.