

**Acetone, Spectro grade a.r.**

Revision: 27.03.2025

Product code: AC11.00837

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

**1.1. Product identifier**

Acetone, Spectro grade a.r.

Substance name: acetone  
 REACH Registration Number: 01-2119471330-49-XXXX  
 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**

Reagents and laboratory chemicals  
 Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

**1.3. Details of the supplier of the safety data sheet**

**Details of the supplier of the safety data sheet**

Company name: AnalytiChem Services, Unipessoal, Lda  
 Street: Rua de Júlio Dinis 676 7º  
 Place: N-4050-320 Porto  
 Telephone: +351 226002917  
 E-mail: info@analytichem.com  
 Contact person: SDS service department  
 E-mail: SDS@analytichem.com  
 Internet: www.analytichem.com  
 Responsible Department: SDS service department

**Supplier or manufacturer details**

Company name: AnalytiChem Belgium NV  
 Street: Industriezone "De Arend" 2  
 Place: B-8210 Zedelgem  
 Telephone: +32 50 28 83 20  
 E-mail: info.be@analytichem.com  
 Contact person: SDS service department  
 E-mail: SDS@analytichem.com  
 Responsible Department: AnalytiChem:  
 EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20  
 EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200  
 EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848  
 UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500  
 USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378  
 Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701  
 Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333

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**1.4. Emergency telephone number:** +44 20 3807 3798 (CHEMTREC)

**Further Information**

No data available

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

Flam. Liq. 2; H225

Eye Irrit. 2; H319

STOT SE 3; H336

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Signal word:** Danger**Pictograms:****Hazard statements**

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.

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P280 Wear protective gloves/protective clothing and eye protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container to an appropriate recycling or disposal facility.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Sum formula: C<sub>3</sub>H<sub>6</sub>O  
Molecular weight: 58.08 g/mol

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**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
67-64-1	acetone			100 %
	200-662-2	606-001-00-8	01-2119471330-49-XXXX	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			

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

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
67-64-1	200-662-2	acetone	100 %
	dermal: LD50 = > 7426 mg/kg; oral: LD50 = 5800 mg/kg		

**Further Information**

No data available

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Remove contaminated, saturated clothing immediately.

**After inhalation**

Provide fresh air.

Call a physician immediately.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

**After contact with eyes**

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

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

**After ingestion**

If swallowed, immediately drink: Water

Call a physician immediately.

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

Dizziness, Anaesthetic state

Vomiting, Gastrointestinal complaints

Causes eye irritation., Headache

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

No data available

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

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**Unsuitable extinguishing media**

no restriction

**5.2. Special hazards arising from the substance or mixture**

Combustible liquids

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Hazardous combustion products

In case of fire may be liberated:

Carbon dioxide

Carbon monoxide

Beware of reignition.

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Vapours can form explosive mixtures with air. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**For non-emergency personnel**

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

To follow: Emergency procedures

Do not breathe mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

Explosion risk.

**6.3. Methods and material for containment and cleaning up****For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Collect in closed and suitable containers for disposal.

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.

Do not breathe mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

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Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Read label before use.  
Handle and open container with care.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Provide adequate ventilation.  
Use extractor hood (laboratory).  
Avoid: aerosol or mist formation

**Advice on protection against fire and explosion**

Take precautionary measures against static discharges.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).

**Advice on general occupational hygiene**

Keep away from: Food and feedingstuffs  
When using do not eat, drink, smoke, sniff.  
Provide eye shower and label its location conspicuously

**Further information on handling**

Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary.  
Take off immediately all contaminated clothing and wash it before reuse.

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

Keep container tightly closed.  
Protect against: Radiant heat.  
Keep away from sources of ignition - No smoking.

**Hints on joint storage**

National regulations

**Further information on storage conditions**

Store in a dry place.  
Store in a well-ventilated place.

**7.3. Specific end use(s)**

Reagents and laboratory chemicals

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

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

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## DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
67-64-1	acetone			
Worker DNEL, long-term		inhalation	systemic	1210 mg/m³
Worker DNEL, acute		inhalation	local	2420 mg/m³
Worker DNEL, long-term		dermal	systemic	186 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	200 mg/m³
Consumer DNEL, long-term		dermal	systemic	62 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	62 mg/kg bw/day

## PNEC values

CAS No	Substance	
Environmental compartment	Value	
67-64-1	acetone	
Freshwater	10,6 mg/l	
Freshwater (intermittent releases)	21 mg/l	
Marine water	1,06 mg/l	
Freshwater sediment	30,4 mg/kg	
Marine sediment	3,04 mg/kg	
Micro-organisms in sewage treatment plants (STP)	100 mg/l	
Soil	29,5 mg/kg	

## Additional advice on limit values

Observe in addition any national regulations!

**8.2. Exposure controls****Appropriate engineering controls**

Provide adequate ventilation as well as local exhaust at critical locations.

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

goggles

Face protection umbrella

**Hand protection**

Tested protective gloves must be worn

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.

**Skin protection**

Wear suitable protective clothing.

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

Take off immediately all contaminated clothing and wash it before reuse.

**Respiratory protection**

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

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**Thermal hazards**

No data available

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

Explosion risk.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	colourless
Odour:	pungent
Odour threshold:	No data available
Melting point/freezing point:	-94 °C
Boiling point or initial boiling point and boiling range:	56 °C
Flammability:	No data available
Lower explosion limits:	2 vol. %
Upper explosion limits:	13 vol. %
Flash point:	-17 °C
Auto-ignition temperature:	465 °C
Decomposition temperature:	No data available
pH-Value (at 20 °C):	5-6 (395 g/l)
Viscosity / kinematic:	No data available
Water solubility:	very soluble
Solubility in other solvents	No data available
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	245.3 hPa
(at 20 °C)	
Vapour pressure:	No data available
Density (at 25 °C):	0.791 g/cm <sup>3</sup>
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

**9.2. Other information****Information with regard to physical hazard classes****Explosive properties**

Vapours can form explosive mixtures with air.

Sustained combustibility: No data available

**Self-ignition temperature**

Solid:

No data available

Gas:

No data available

**Oxidizing properties**

No data available

**Other safety characteristics**

Evaporation rate: No data available

Solvent separation test: No data available

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Solvent content:	No data available
Solid content:	No data available
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
No data available:	
Viscosity / dynamic:	No data available
Flow time:	No data available

**Further Information**

No data available

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

Vapours can form explosive mixtures with air.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Ignition: Reducing agent, strong, Nitric acid, Fluorine, Oxidising agent, strong

Explosion hazard with: Chloroform Hydrogen peroxide

Exothermic reaction with: Bromine, Alkali metals, Hydrogen halide, Sulphur dichloride

**10.4. Conditions to avoid**

Radiant heat.

**10.5. Incompatible materials**

No data available

**10.6. Hazardous decomposition products**

In case of fire may be liberated:

SECTION 5: Firefighting measures

**Further information**

No data available

**SECTION 11: Toxicological information****11.1. Information on hazard classes****Acute toxicity**

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
67-64-1	acetone				
	oral	LD50 mg/kg 5800	Rat	J Toxicol Environ Health 15: 609-621 (19	Undiluted acetone applied to female rats
	dermal	LD50 mg/kg > 7426	Rabbit	Toxicol Appl Pharmacol 7: 559-565. (1965	other: Code of federal regulations: 21 C



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**Irritation and corrosivity**

Serious eye damage/eye irritation: Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Repeated exposure may cause skin dryness or cracking.

Dermatitis

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

**STOT-single exposure**

May cause drowsiness or dizziness. (acetone)

**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.

**Information on likely routes of exposure**

No data available

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**11.2. Information on other hazards****Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**Other information**

Dizziness, Unconsciousness, Dizziness, Narcotic effects, Vomiting, Gastrointestinal complaints

**Further information**

No data available

**SECTION 12: Ecological information****12.1. Toxicity**

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

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
67-64-1	acetone					
	Acute fish toxicity	LC50 mg/l	8120	96 h Pimephales promelas	Publication (1984)	OECD Guideline 203
	Acute crustacea toxicity	EC50 mg/l	8800	48 h Daphnia pulex	Publication (1978)	The toxicity of acetone towards daphnids
	Crustacea toxicity	NOEC mg/l	2212	28 d Daphnia magna	Arch Environm Contam Toxicol 12: 305-310	Study conducted comparable to OECD 211 w
	Acute bacteria toxicity	EC50 mg/l ( )	61150	0,5 h activated sludge of a predominantly domestic sewage	Water Res 26: 887-892 (1992)	ISO 8192

**12.2. Persistence and degradability**

Readily biodegradable (according to OECD criteria).  
(91% / 28d aerob)

**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
67-64-1	acetone	-0,23

**BCF**

CAS No	Chemical name	BCF	Species	Source
67-64-1	acetone	3		Unpublished calculat

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of UK REACH.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

**Further information**

Do not allow to enter into surface water or drains.  
Discharge into the environment must be avoided.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Send to a physico-chemical treatment facility under observation of official regulations .  
Do not allow to enter into surface water or drains.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

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**SECTION 14: Transport information**

**Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	UN 1090
<b>14.2. UN proper shipping name:</b>	ACETONE
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Classification code:	F1
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

**Inland waterways transport (ADN)**

<b>14.1. UN number or ID number:</b>	UN 1090
<b>14.2. UN proper shipping name:</b>	ACETONE
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Classification code:	F1
Limited quantity:	1 L
Excepted quantity:	E2

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	UN 1090
<b>14.2. UN proper shipping name:</b>	ACETONE
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Special Provisions:	-
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-D

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number or ID number:</b>	UN 1090
<b>14.2. UN proper shipping name:</b>	ACETONE
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

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**14.7. Maritime transport in bulk according to IMO instruments**

No dangerous good in sense of this transport regulation.

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

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Information according to Directive P5c FLAMMABLE LIQUIDS

2012/18/EU (SEVESO III):

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

**Additional information**

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

**National regulatory information**

Water hazard class (D): 1 - slightly hazardous to water

**SECTION 16: Other information****Abbreviations and acronyms**

Flam. Liq. 2: Flammable liquids, hazard category 2

Eye Irrit. 2: Eye irritation, hazard category 2

STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3

**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 the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.