

Acetonitrile 75m/m% + H2O 25%_{m/m}%,ULC-MS

Revision: 27.03.2025

Product code: AC11.00826

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

1.1. Product identifier

Acetonitrile 75m/m% + H2O 25%_{m/m}%,ULC-MS

UFI: DGGJ-N261-TWCY-5CYS

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
+44 20 3807 3798 (CHEMTREC)

1.4. Emergency telephone number:

Further Information

inapplicable, this product is a mixture REACH registration number see section 3

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

Flam. Liq. 2; H225
Acute Tox. 4; H332
Acute Tox. 4; H312
Acute Tox. 4; H302
Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

2.2. Label elements**Regulation (EC) No 1272/2008**

Hazard components for labelling
acetonitrile

Signal word: Danger

Pictograms:

**Hazard statements**

H225 Highly flammable liquid and vapour.
H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H319 Causes serious eye irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
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 information available.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
75-05-8	acetonitrile			75 - < 80 %
	200-835-2	608-001-00-3	01-2119471307-38	
	Flam. Liq. 2, Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2; H225 H332 H312 H302 H319			

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

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Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
75-05-8	200-835-2	acetonitrile	75 - < 80 %
		inhalation: LC50 = 3587 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 469 mg/kg	

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

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

No data available

After inhalation

Provide fresh air. Call a physician immediately.
If breathing is irregular or stopped, administer artificial respiration.

After contact with skin

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

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.

After ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

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

Headache
Dyspnoea
Irritant
Vomiting
Spasms
Unconsciousness
Respiratory complaints
Cardiac arrhythmias
Dizziness
Release of: Hydrogen cyanide (hydrocyanic acid)

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**

Water spray jet, Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

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

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Hazardous combustion products

In case of fire may be liberated: Carbon dioxide (CO₂) Carbon monoxide Hydrogen cyanide (hydrocyanic acid)

Beware of reignition.

5.3. Advice for firefighters

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

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

Additional information

Danger of bursting container.

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

Suppress gases/vapours/mists with water spray jet.

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

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

Keep away from sources of ignition - 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).

Take action to prevent static discharges.

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/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.

The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

Danger of explosion

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).

Collect in closed and suitable containers for disposal.

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

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

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

6.4. Reference to other sections

Safe handling: see section 7

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Personal protection equipment: see section 8

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.

When using do not eat, drink, smoke, sniff. Keep container tightly closed.

Use personal protection equipment. Use extractor hood (laboratory).

Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

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

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

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

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

storage temperature: +5°C - +30°C

Hints on joint storage

Take national regulations into account.

Further information on storage conditions

Keep cool. Protect from sunlight.

7.3. Specific end use(s)

Laboratory chemicals

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

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
75-05-8	Acetonitrile	40	68		TWA (8 h)	WEL
		60	102		STEL (15 min)	WEL

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DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
75-05-8	acetonitrile			
Worker DNEL, long-term		inhalation	systemic	68 mg/m³
Worker DNEL, acute		inhalation	systemic	68 mg/m³
Worker DNEL, long-term		inhalation	local	68 mg/m³
Worker DNEL, acute		inhalation	local	68 mg/m³
Worker DNEL, long-term		dermal	systemic	32,2 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	4,8 mg/m³
Consumer DNEL, acute		inhalation	systemic	220 mg/m³
Consumer DNEL, long-term		inhalation	local	4,8 mg/m³
Consumer DNEL, acute		inhalation	local	22 mg/m³
Consumer DNEL, acute		oral	systemic	0,6 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment	Value	
75-05-8	acetonitrile	
Freshwater	10 mg/l	
Freshwater (intermittent releases)	10 mg/l	
Marine water	1 mg/l	
Freshwater sediment	7,53 mg/kg	
Micro-organisms in sewage treatment plants (STP)	32 mg/l	
Soil	2,41 mg/kg	

8.2. Exposure controls**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

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

Suitable eye protection: goggles.

Hand protection

Tested protective gloves must be worn. 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

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Respiratory protection

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

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Thermal hazards

No data available

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Environmental exposure controls

Do not allow to enter into surface water or drains.

Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Danger of explosion

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

Physical state:	Liquid	
Colour:	colourless	
Odour:	like: Ether	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		>35 °C
Flammability:		not applicable
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		<21 °C
Auto-ignition temperature:		No data available
Decomposition temperature:		not determined
pH-Value:		not determined
Viscosity / kinematic:		No data available
Solubility in other solvents		
not determined		
Dissolution rate:		No data available
Partition coefficient n-octanol/water:		not determined
Dispersion stability:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available
Density:		~0,85 g/cm ³
Bulk density:		No data available
Relative vapour density:		not determined
Particle characteristics:		No data available

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

Explosive properties

No data available

Sustained combustibility:

No data available

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

Not oxidising.

Other safety characteristics

Evaporation rate:

not determined

Solvent separation test:

No data available

Solid content:

No data available

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

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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 may form explosive mixtures with air.

10.2. Chemical stability

Keep away from heat.

10.3. Possibility of hazardous reactions

(Acetonitrile) Violent reactions possible with: Strong bases, strong reducing agents. Explosion hazard with: Nitrates, perchlorates, concentrated perchloric acid, concentrated sulfuric acid, with heat. Fire hazard or formation of flammable gases or vapors with: Oxidizing agents, nitric acid, nitrogen dioxide, with catalyst. Development of dangerous gases or vapors with: Acids.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

rubber

various plastics

10.6. Hazardous decomposition products

SECTION 5: Firefighting measures

Further information

No data available

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

Harmful if inhaled.

Harmful in contact with skin.

Harmful if swallowed.

ATEmix calculated

ATE (oral) 625,3 mg/kg; ATE (dermal) 1467 mg/kg; ATE (inhalation vapour) 14,67 mg/l; ATE (inhalation dust/mist) 2,000 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
75-05-8	acetonitrile				
	oral	LD50 469 mg/kg	Mouse	Study report (1998)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	Study report (1997)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 3587 mg/l	Mouse	Study report (1998)	OECD Guideline 403
	inhalation dust/mist	ATE 1,5 mg/l			

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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.

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

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

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 product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other information

Headache

Dyspnoea

Irritant

Vomiting

Spasms

Unconsciousness

Respiratory complaints

Cardiac arrhythmias

Dizziness

Release of: Hydrogen cyanide (hydrocyanic acid)

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
75-05-8	acetonitrile					
	Acute fish toxicity	LC50 mg/l	1640	96 h	Pimephales promelas	Review article or handbook (1984)
	Acute algae toxicity	ErC50 mg/l	3560	72 h	Phaeodactylum tricornutum	Study report (2010)
	Acute crustacea toxicity	EC50 mg/l	3600	48 h	Daphnia magna	Bull. Environ. Contam. Toxicol. 57:655-6
	Fish toxicity	NOEC	102 mg/l	7 d	Oryzias latipes	Study report (1996)
	Crustacea toxicity	NOEC	960 mg/l	21 d	Daphnia magna	Study report (1996)
						Guideline not specified
						ISO 10253
						other: OECD Guidelines for Testing Chemi
						OECD Guideline 204
						other: OECD Guideline 202

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
75-05-8	acetonitrile	0,29

BCF

CAS No	Chemical name	BCF	Species	Source
75-05-8	acetonitrile	3		HSDB (2009)

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No data available

Further information

No data available

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 empty into drains.

Contaminated packaging

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

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

14.1. UN number or ID number:	UN 1648
14.2. UN proper shipping name:	ACETONITRILE
14.3. Transport hazard class(es):	3
14.4. Packing group:	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)

14.1. UN number or ID number:	UN 1648
14.2. UN proper shipping name:	ACETONITRILE
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Classification code:	F1
Limited quantity:	1 L
Excepted quantity:	E2

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1648
14.2. UN proper shipping name:	ACETONITRILE
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Special Provisions:	-
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1648
14.2. UN proper shipping name:	ACETONITRILE
14.3. Transport hazard class(es):	3
14.4. Packing group:	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

Warning: Combustible liquid.

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14.7. Maritime transport in bulk according to IMO instruments

not applicable

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
2012/18/EU (SEVESO III):

P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions:

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

Water hazard class (D):

2 - obviously hazardous to water

Skin resorption/Sensitization:

Permeates easily through outer skin and causes poisoning.

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

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

Acute Tox. 4: Acute toxicity, hazard category 4

Eye Irrit. 2: Eye irritation, hazard category 2

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Acute Tox. 4; H332	Calculation method
Acute Tox. 4; H312	Calculation method
Acute Tox. 4; H302	Calculation method
Eye Irrit. 2; H319	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
H312	Harmful in contact with skin.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

Further Information

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

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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.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)