

**MIX A2-2 (32C) Modified standard solutio**

Revision: 05.06.2025

Product code: AC18.04390

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

MIX A2-2 (32C) Modified standard solutio

UFI: T3PY-EWHG-6R4S-XEYC

**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

**1.4. Emergency telephone****number:**

+44 20 3807 3798 (CHEMTREC)

**Further Information**

No data available

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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. 3; H331

Acute Tox. 3; H311

Acute Tox. 3; H301

STOT SE 1; H370

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.

H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.

H370 Causes damage to organs (eyes, central nervous system).

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 Do not breathe mist/vapours/spray.

P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.

P403+P235 Store in a well-ventilated place. Keep cool.

**2.3. Other hazards**

No data 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)				
67-56-1	methanol			100 %
	200-659-6	603-001-00-X	01-2119433307-44	
	Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H331 H311 H301 H370			

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			
67-56-1	200-659-6	methanol	100 %
inhalation: LC50 = 128,2 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: LD50 = 6000 mg/kg STOT SE 1; H370: >= 10 - 100 STOT SE 2; H371: >= 3 - < 10			

**Further Information**

No data available

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

Self-protection of the first aider  
Remove contaminated, saturated clothing immediately.

**After inhalation**

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

**After contact with skin**

Wash immediately with: Water  
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.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
Protect uninjured eye.

**After ingestion**

Provide fresh air.  
If swallowed, immediately drink: Water  
Call a physician immediately.

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

Dizziness  
Dizziness  
Impairment of vision

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

Notes for the doctor: Methanol

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

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

**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.

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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

Disposal: see section 13

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

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**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).

**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.
- Store in a place accessible by authorized persons only.

**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
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL

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**DNEL/DMEL values**

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
67-56-1	methanol			
Consumer DNEL, acute		inhalation	systemic	50 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	systemic	260 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	systemic	260 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	260 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	260 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	40 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	40 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	50 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	50 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	local	50 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	8 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	8 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	8 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	8 mg/kg bw/day

**PNEC values**

CAS No	Substance		
Environmental compartment			Value
67-56-1	methanol		
Freshwater			20,8 mg/l
Freshwater (intermittent releases)			1540 mg/l
Marine water			2,08 mg/l
Freshwater sediment			77 mg/kg
Marine sediment			7,7 mg/kg
Micro-organisms in sewage treatment plants (STP)			100 mg/l
Soil			100 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 exhaustion 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

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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.

**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:	like: Methanol
Odour threshold:	No data available
Melting point/freezing point:	-98 °C
Boiling point or initial boiling point and boiling range:	64.7 °C
Flammability:	No data available
Lower explosion limits:	5.5 vol. %
Upper explosion limits:	44 vol. %
Flash point:	9.7 °C
Auto-ignition temperature:	455 °C
Decomposition temperature:	No data available
pH-Value:	No data available
Viscosity / kinematic: (at 20 °C)	0.54-0.59 mm <sup>2</sup> /s
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: (at 25 °C)	169.27 hPa
Vapour pressure:	No data available
Density (at 25 °C):	0.791 g/cm <sup>3</sup>
Relative density (at 20 °C):	0.79-0.8
Bulk density:	No data available
Relative vapour density:	1.11
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.

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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
Solvent content:	No data available
Solid content:	0%
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
No data available:	
Viscosity / dynamic: (at 25 °C)	0.544-0.59 mPa·s
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**

Explosion hazard with:

Oxidizing agent, Perchlorates, Nitrogen oxides (NOx), Chlorates

Hydrogen peroxide Nitric acid, sulphuric acid, Hypochlorites

Exothermic reaction with:

Acid halogen, Acetic anhydride, Maleic anhydride, Reducing agent

Acid, Bromine, Chlorine (Cl2), Chloroform, Carbon tetrachloride (carbon tetrachloride)

Ignition: Fluorine, Phosphorus oxides

Possibility of hazardous reactions: Alkaline earth metal, Alkali metals

**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**

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**Acute toxicity**

Toxic if inhaled.

Toxic in contact with skin.

Toxic if swallowed.

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
67-56-1	methanol					
	oral	LD50 mg/kg	6000 Monkey	Amer J Ophthalmol 40: 76-83 (cited in DG)	Determination of the acute toxicity of t	
	dermal	ATE mg/kg	300			
	inhalation (4 h) vapour	LC50 mg/l	128,2 Rat	Study report (1980)	Study performed according to internal co	
	inhalation dust/mist	ATE	0,5 mg/l			

**Irritation and corrosivity**

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

Serious eye damage/eye 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.

slightly irritant but not relevant for classification.

Has degreasing effect on the skin.

**STOT-single exposure**

Causes damage to organs. (methanol)

eyes

central nervous system

**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**

Causes damage to organs.

Liver and kidney damage

heart

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

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

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**Other information**

Headache, Dizziness, Dizziness, Anaesthetic state  
 Impairment of vision, Vomiting, Gastrointestinal complaints, Agitation  
 Spasms, Inebriation, Blood pressure drop

**Further information**

No data available

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

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

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
67-56-1	methanol					
	Acute fish toxicity	LC50 15400 mg/l	96 h	Lepomis macrochirus	Bulletin of Environmental Contamination	other: EPA-660/3-75-00 9, 1975
	Acute algae toxicity	ErC50 ca. 22000 mg/l	96 h	Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety 7	OECD Guideline 201
	Acute crustacea toxicity	EC50 > 10000 mg/l	48 h	Daphnia magna	Water Research 23(4): 495-499 (1989)	other: DIN 38412 Teil 11
	Fish toxicity	NOEC 446,7 mg/l	28 d	Pimephales promelas	SAR and QSAR in Environmental Research,	Calculation performed with ECOSAR
	Crustacea toxicity	NOEC 208 mg/l	21 d	Daphnia magna	OECD QSAR Toolbox Report (2013)	Toxicity of the target chemical is predi

**12.2. Persistence and degradability**

Readily biodegradable (according to OECD criteria).  
 (99%)

**12.3. Bioaccumulative potential****Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
67-56-1	methanol	-0,77

**BCF**

CAS No	Chemical name	BCF	Species	Source
67-56-1	methanol	1	Cyprinus carpio	Comparative Biochemi

**12.4. Mobility in soil**

No adsorption in soil or sediment.

**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**

Discharge into the environment must be avoided.

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**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.

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

<b><u>14.1. UN number or ID number:</u></b>	UN 1230
<b><u>14.2. UN proper shipping name:</u></b>	METHANOL
<b><u>14.3. Transport hazard class(es):</u></b>	3
<b><u>14.4. Packing group:</u></b>	II
Hazard label:	3+6.1
Classification code:	FT1
Special Provisions:	279
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	336
Tunnel restriction code:	D/E

**Inland waterways transport (ADN)**

<b><u>14.1. UN number or ID number:</u></b>	UN 1230
<b><u>14.2. UN proper shipping name:</u></b>	METHANOL
<b><u>14.3. Transport hazard class(es):</u></b>	3
<b><u>14.4. Packing group:</u></b>	II
Hazard label:	3+6.1
Classification code:	FT1
Special Provisions:	279 802
Limited quantity:	1 L
Excepted quantity:	E2

**Marine transport (IMDG)**

<b><u>14.1. UN number or ID number:</u></b>	UN 1230
<b><u>14.2. UN proper shipping name:</u></b>	METHANOL
<b><u>14.3. Transport hazard class(es):</u></b>	3
<b><u>14.4. Packing group:</u></b>	II
Hazard label:	3+6.1
Special Provisions:	279
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-D

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

<b><u>14.1. UN number or ID number:</u></b>	UN 1230
<b><u>14.2. UN proper shipping name:</u></b>	METHANOL

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<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3+6.1
Special Provisions:	A113
Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger:	352
IATA-max. quantity - Passenger:	1 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.

**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 69

Information according to Directive 22 Methanol (67-56-1)

2012/18/EU (SEVESO III):

Additional information: H2, P5c

**Additional information**

Observe restrictions to employment for juveniles 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.

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

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

Acute Tox. 3: Acute toxicity, hazard category 3

STOT SE 1: Specific target organ toxicity - single exposure, hazard category 1

**Relevant H and EUH statements (number and full text)**

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs (eyes, central nervous system).
H370	Causes damage to organs.

**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.

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