# METHANOL 50% SOLUTION IN WATER FOR PROTEIN SEQUENCE ANALYSIS MSDS



# CAS-No.: MSDS

# MATERIAL SAFETY DATA SHEET (MSDS)

Product form	: Mixture
	:
Product code	: 0201A
1.2. Relevant identified uses	of the substance or mixture and uses advised against
1.2.1. Relevant identified uses	
ndustrial/Professional use spec	: Industrial
	For professional use only
1.2.2. Uses advised against	
No additional information available	
1.3. Details of the supplier of the safety data sheet	
SPAN LAB	

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#### **SECTION 2: Hazards identification**

2 4	Classification of the substance or mixture
2.1.	Classification of the substance or mixture

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

Flammable liquids, Category 2	H225
Acute toxicity (oral), Category 3	H301
Acute toxicity (dermal),	H311
Category 3	-
Acute toxicity (inhal.), Category 3	H331
Specific target organ	H370
toxicity — single	
exposure, Category 1	

Full text of H statements : see section 16

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Adverse physicochemical, human health and environmental effects No additional information available

2.2. Label elements	
Labelling according to Regulation (EC)	No. 1272/2008 [CLP]
Hazard pictograms (CLP) :	
	GHS02 GHS06 GHS08
Signal word (CLP)	: Danger
Hazard statements (CLP)	<ul> <li>H225 - Highly flammable liquid and vapour.</li> <li>H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled</li> <li>H370 - Causes damage to organs.</li> </ul>
Precautionary statements (CLP)	<ul> <li>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</li> <li>P243 - Take precautionary measures against static discharge.</li> <li>P280 - Wear protective clothing, face protection, eye protection.</li> <li>P302+P352 - IF ON SKIN: Wash with plenty of soap and water.</li> <li>P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li> <li>P310 - Immediately call a doctor.</li> </ul>

#### 2.3. Other hazards

No additional information available

#### SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X	50 - 75	Flam. Liq. 2, H225 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Oral), H301 STOT SE 1, H370
Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	50 - 75	Not classified

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Full text of H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	S
First-aid measures general	: Call a POISON CENTER/doctor.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Immediately call a POISON CENTER/doctor. Wash with plenty of water/ Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.
First-aid measures after ingestion	: Rinse mouth. Obtain emergency medical attention.
4.2. Most important symptoms and e	effects, both acute and delayed
Symptoms/effects	: Causes damage to organs.
Symptoms/effects after inhalation	: Toxic if inhaled.
Symptoms/effects after skin contact	: Toxic in contact with skin.
Symptoms/effects after ingestion	: Toxic if swallowed.
4.3. Indication of any immediate med	dical attention and special treatment needed
Treat symptomatically.	
SECTION 5: Firefighting measures	
SECTION 5. Firenginting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Carbon dioxide. Dry powder. Foam. Water spray.
Unsuitable extinguishing media	: Do not use extinguishing media containing water.
5.2. Special hazards arising from the	
Fire hazard	: Flammable liquid and vapour.
Explosion hazard	: May form flammable/explosive vapour-air mixture.
5.3. Advice for firefighters	
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
SECTION 6: Accidental release measure	S
6.1. Personal precautions, protective	a couloment and emergency precedures
General measures	e equipment and emergency procedures : Remove ignition sources. Use special care to avoid static electric charges.
General measures	. Remove ignition sources. Use special care to avoid static electric charges.
6.1.1. For non-emergency personnel	
Emergency procedures	: Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	: Use personal protective equipment as required.
Emergency procedures	: Ventilate area.
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for contai	nment and cleaning up
Methods for cleaning up	: On land, sweep or shovel into suitable containers. Collect spillage.
6.4. Reference to other sections	
No additional information available	10/04/04/0
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SECTION 7: Handling and storage		
7.1. Precautions for safe handling		
Precautions for safe handling	<ul> <li>Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Do not breathe vapours. Provide good ventilation in process area to prevent formation of vapour.</li> </ul>	
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.	
7.2. Conditions for safe storage, in	cluding any incompatibilities	
Storage conditions	: Store in a well-ventilated place. Keep container tightly closed.	
7.3. Specific end use(s)		
No additional information available		
SECTION 8: Exposure controls/personal protection		
8.1. Control parameters		

No additional information available

8.2. Exposure controls	
Hand protection	: Protective gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection.
SECTION 9: Physical and chemical prop	erties
9.1. Information on basic physical a	nd chemical properties
Physical state	: Liquid
Colour	: Colourless.
Odour	: alcoholic odour.
Odour threshold	: No data available
рН	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: -98 °C
Freezing point	: No data available
Boiling point	: 64.7 °C
Flash point	: 11 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available

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Flammability (solid, gas)	: No data available	
Vapour pressure	: No data available	
Relative vapour density at 20 °C	: No data available	
Relative density	: No data available	
Density	: 0.8 g/cm <sup>3</sup>	
Solubility	: Water: Complete	
Log Pow	: No data available	
Viscosity, kinematic	: No data available	
Viscosity, dynamic	: No data available	
Explosive properties	: No data available	
Oxidising properties	: No data available	
Explosive limits	: No data available	
9.2. Other information		

No additional information available		
SECTIO	N 10: Stability and reactivity	
10.1.	Reactivity	
No additi	ional information available	
10.2.	Chemical stability	
Stable u	nder normal conditions.	
10.3.	Possibility of hazardous reactions	
No additi	ional information available	
10.4.	Conditions to avoid	
Heat. Op	ben flame. Sparks.	
10.5.	Incompatible materials	
No additi	ional information available	
10.6.	Hazardous decomposition products	
No additi	ional information available	
SECTIO	N 11: Toxicological information	
11.1.	Information on toxicological effects	

		inhaled.
	ATE CLP (oral)	100 mg/kg bodyweight
	ATE CLP (dermal)	300 mg/kg bodyweight
	ATE CLP (gases)	700 ppmv/4h
	ATE CLP (vapours)	3 mg/l/4h
	ATE CLP (dust.mist)	0.5 mg/l/4h

Acute toxicity

: Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation: Toxic if

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Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Causes damage to organs.
STOT-repeated exposure	: Not classified
STOT-repeated exposure	
Aspiration hazard	: Not classified
Potential adverse human health effects	: Toxic if swallowed. Toxic in contact with skin.
and symptoms	
SECTION 12: Ecological information	
12.1. Toxicity	
No additional information available	
12.2. Persistence and degradability	

No additional information available

#### 12.3. **Bioaccumulative potential**

No additional information available

#### 12.4. **Mobility in soil**

No additional information available

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

No additional information available

12.6.Other adverse effectsNo additional information available	
SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Ecology - waste materials	: Hazardous waste due to toxicity.

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# SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1.         UN number           UN-No. (ADR)         : 1230           UN-No. (IMDG)         : 1230           UN-No. (IATA)         : 1230	
UN-No. (IMDG) : 1230	
Sivino: ( <i>i</i> /ii/i)	
UN-No. (ADN) : 1230	
UN-No. (RID) : 1230	
14.2. UN proper shipping name	
Proper Shipping Name (ADR) : METHANOL	
Proper Shipping Name (IMDG) : METHANOL	
Proper Shipping Name (IATA) : Methanol	
Proper Shipping Name (ADN) : METHANOL	
Proper Shipping Name (RID) : METHANOL	
Transport document description (ADR) : UN 1230 METHANOL, 3 (6.1), II, (D/E)	
Transport document description (IMDG) : UN 1230 METHANOL, 3 (6.1), II (12°C c.c.)	
Transport document description (IATA) : UN 1230 Methanol, 3 (6.1), II	
Transport document description (ADN) : UN 1230 METHANOL, 3 (6.1), II	
Transport document description (RID) : UN 1230 METHANOL, 3 (6.1), II	
14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR) : 3 (6.1)	
Danger labels (ADR) : 3, 6.1	
IMDG	
Transport hazard class(es) (IMDG) : 3 (6.1)	
Danger labels (IMDG) : 3, 6.1	
Transport hazard class(es) (IATA) : 3 (6.1)	
Transport hazard class(es) (IATA) : 3 (6.1)	
Transport hazard class(es) (IATA) : 3 (6.1)	

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Transport hazard class(es) (ADN)	: 3 (6.1)
Danger labels (ADN)	: 3, 6.1
	3 6
RID	
Transport hazard class(es) (RID)	: 3 (6.1)
Danger labels (RID)	: 3, 6.1
	3 6
14.4. Packing group	
Packing group (ADR)	: 11
Packing group (IMDG)	: II
Packing group (IATA)	: 11
Packing group (ADN)	: 11
Packing group (RID)	: 11
14.5. Environmental hazards	
Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available
14.6. Special precautions for user	
- Overland transport	
Classification code (ADR)	: FT1
Special provisions (ADP)	• 270

( )		
Special provisions (ADR)	:	279
Limited quantities (ADR)	:	11
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001, IBC02
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	Т7
Portable tank and bulk container special provisions (ADR)	:	TP2
Tank code (ADR)	:	L4BH
Tank special provisions (ADR)	:	TU15
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	2
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV13, CV28
Special provisions for carriage - Operation (ADR)	:	S2, S19
Hazard identification number (Kemler No.)	:	336

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Orange plates	336 1230
Tunnel restriction code (ADR)	: D/E
EAC code	: •2WE
APP code	: A(fl)
	. / (0)
- Transport by sea	
Special provisions (IMDG)	: 279
Limited quantities (IMDG)	: 1L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T7
Tank special provisions (IMDG)	: TP2
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Flash point (IMDG)	: 12°C c.c.
Properties and observations (IMDG)	: Colourless, volatile liquid. Flashpoint: 12°C c.c. Explosive limits: 6% to 36.5% Miscible with water.Toxic if swallowed; may cause blindness. Avoid skin contact.
MFAG-No	: 131
- Air transport	
PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y341
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 352
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A113
ERG code (IATA)	: 3L
- Inland waterway transport	
Classification code (ADN)	: FT1
Special provisions (ADN)	: 279, 802
Limited quantities (ADN)	: 1L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	:
Equipment required (ADN)	: PP, EP, EX, TOX, A
Ventilation (ADN)	: VE01, VE02
Number of blue cones/lights (ADN)	: 2
- Rail transport	
Classification code (RID)	: FT1
Special provisions (RID)	: 279
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP19

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Portable tank and bulk container instructions (RID)	: T7
Portable tank and bulk container special provisions (RID)	: TP2
Tank codes for RID tanks (RID)	: L4BH
Special provisions for RID tanks (RID)	: TU15
Transport category (RID)	: 2
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28
Colis express (express parcels) (RID)	: CE7
Hazard identification number (RID)	: 336

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

**SECTION 15: Regulatory information** 

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

#### Germany

Reference to AwSV	: Water hazard class (WGK) 3, severe hazard to water (Classification according to AwSV, Annex 1)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: None of the components are listed

#### Denmark

Denmark	
Class for fire hazard	: Class I-1
Store unit	: 1 liter
Classification remarks	: F <flam. 2="" liq.="">; Emergency management guidelines for the storage of flammable liquids must be followed</flam.>

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Recommendations Danish Regulation	<ul> <li>Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product</li> </ul>

## 15.2. Chemical safety assessment

## No additional information available

## **SECTION 16: Other information**

### Full text of H- and EUH-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 1	Specific target organ toxicity — single exposure, Category 1
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product