

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

Revision Date 22.05.2019

Version 4.7

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

Catalogue No.	106009
Product name	Methanol for analysis EMSURE® ACS,ISO,Reag. Ph Eur
REACH Registration Number	01-2119433307-44-XXXX
CAS-No.	67-56-1

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

Identified uses	Reagent for analysis, Solvent, Chemical production In compliance with the conditions described in the annex to this safety data sheet.
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**1.3 Details of the supplier of the safety data sheet**

Responsible Department	LS-QHC * e-mail: prodsafe@merckgroup.com
Regional representation	Merck Chemicals Ltd * The Old Brickyard * New Road * Gillingham * Dorset * SP8 4XT * Tel. +44(0)1747 833000 * information@merckchem.co.uk.

**1.4 Emergency telephone number** +49 (0) 6151 722440**SECTION 2. Hazards identification****2.1 Classification of the substance or mixture  
Classification (REGULATION (EC) No 1272/2008)**

Flammable liquid, Category 2, H225  
Acute toxicity, Category 3, Oral, H301  
Acute toxicity, Category 3, Inhalation, H331  
Acute toxicity, Category 3, Dermal, H311  
Specific target organ toxicity - single exposure, Category 1, Eyes, H370  
For the full text of the H-Statements mentioned in this Section, see Section 16.

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## 2.2 Label elements

### Labelling (REGULATION (EC) No 1272/2008)

#### Hazard pictograms



#### Signal word

Danger

#### 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).

#### Precautionary statements

##### Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P240 Ground/bond container and receiving equipment.

P280 Wear protective gloves/ protective clothing.

##### Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

##### Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

### Reduced labelling (≤125 ml)

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

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

H370 Causes damage to organs (Eyes).

#### Precautionary statements

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

P280 Wear protective gloves/ protective clothing.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

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## 2.3 Other hazards

None known.

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## SECTION 3. Composition/information on ingredients

### 3.1 Substance

Formula	CH <sub>3</sub> OH	CH <sub>4</sub> O (Hill)
Index-No.	603-001-00-X	
EC-No.	200-659-6	
Molar mass	32.04 g/mol	

### Hazardous components (REGULATION (EC) No 1272/2008)

*Chemical name (Concentration)*

CAS-No.	Registration number	Classification
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Methanol (<= 100 % )

*Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.*

67-56-1	01-2119433307-44-XXXX	Flammable liquid, Category 2, H225 Acute toxicity, Category 3, H301 Acute toxicity, Category 3, H331 Acute toxicity, Category 3, H311 Specific target organ toxicity - single exposure, Category 1, H370
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For the full text of the H-Statements mentioned in this Section, see Section 16.

### 3.2 Mixture

Not applicable

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## SECTION 4. First aid measures

### 4.1 Description of first aid measures

*General advice*

First aider needs to protect himself.

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

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After swallowing: fresh air. Make victim drink ethanol (e.g. 1 drinking glass of a 40% alcoholic beverage). Call a doctor immediately (mention methanol ingestion). Only in exceptional cases, if no medical care is available within one hour, induce vomiting (only in fully conscious persons) and make victim drink ethanol again (approx. 0.3 ml of a 40% alcoholic beverage/kg body weight/hour). Do not attempt to neutralise.

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

irritant effects, Drowsiness, Dizziness, narcosis, agitation, spasms, inebriation, Nausea, Vomiting, Headache, blindness, Impairment of vision, Coma  
Drying-out effect resulting in rough and chapped skin.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

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## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

*Suitable extinguishing media*

Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder, Water

*Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

### 5.2 Special hazards arising from the substance or mixture

Combustible.

Vapours are heavier than air and may spread along floors.

Forms explosive mixtures with air at ambient temperatures.

Pay attention to flashback.

Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3 Advice for firefighters

*Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

*Further information*

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## SECTION 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

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## 6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

## 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

## 6.4 Reference to other sections

Indications about waste treatment see section 13.

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## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

#### *Advice on safe handling*

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Observe label precautions.

#### *Advice on protection against fire and explosion*

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### *Hygiene measures*

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

### 7.2 Conditions for safe storage, including any incompatibilities

#### *Storage conditions*

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorised persons.

Recommended storage temperature see product label.

### 7.3 Specific end use(s)

See exposure scenario in the Annex to this MSDS.

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## SECTION 8. Exposure controls/personal protection

### 8.1 Control parameters

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## Components with workplace control parameters

### Components

Basis	Value	Threshold limits	Remarks
<i>Methanol (67-56-1)</i>			
EH40 WEL	Short Term Exposure Limit (STEL):	250 ppm 333 mg/m <sup>3</sup>	
	Skin designation:		Can be absorbed through the skin.
	Time Weighted Average (TWA):	200 ppm 266 mg/m <sup>3</sup>	

## Derived No Effect Level (DNEL)

Worker DNEL, acute	Systemic effects	dermal	40 mg/kg Body weight
Worker DNEL, acute	Systemic effects	inhalation	260 mg/m <sup>3</sup>
Worker DNEL, acute	Local effects	inhalation	260 mg/m <sup>3</sup>
Worker DNEL, longterm	Systemic effects	dermal	40 mg/kg Body weight
Worker DNEL, longterm	Systemic effects	inhalation	260 mg/m <sup>3</sup>
Worker DNEL, longterm	Local effects	inhalation	260 mg/m <sup>3</sup>
Consumer DNEL, acute	Systemic effects	dermal	8 mg/kg Body weight
Consumer DNEL, acute	Systemic effects	inhalation	50 mg/m <sup>3</sup>
Consumer DNEL, acute	Systemic effects	oral	8 mg/kg Body weight
Consumer DNEL, acute	Local effects	inhalation	50 mg/m <sup>3</sup>
Consumer DNEL, longterm	Systemic effects	dermal	8 mg/kg Body weight
Consumer DNEL, longterm	Systemic effects	inhalation	50 mg/m <sup>3</sup>
Consumer DNEL, longterm	Systemic effects	oral	8 mg/kg Body weight
Consumer DNEL, longterm	Local effects	inhalation	50 mg/m <sup>3</sup>

## Recommended monitoring procedures

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

## Predicted No Effect Concentration (PNEC)

PNEC Fresh water	154 mg/l
PNEC Fresh water sediment	570.4 mg/kg
PNEC Marine water	15.4 mg/l
PNEC Soil	23.5 mg/kg
PNEC Sewage treatment plant	100 mg/l

## 8.2 Exposure controls

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## Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

## Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

### *Eye/face protection*

Safety glasses

### *Hand protection*

full contact:

Glove material:	butyl-rubber
Glove thickness:	0.7 mm
Break through time:	> 480 min

splash contact:

Glove material:	Viton (R)
Glove thickness:	0.70 mm
Break through time:	> 120 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 898 Butoject® (full contact), KCL 890 Vitoject® (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

### *Other protective equipment*

Flame retardant antistatic protective clothing.

### *Respiratory protection*

required when vapours/aerosols are generated.

Recommended Filter type: Filter AX (EN 371)

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.

## Environmental exposure controls

Do not let product enter drains.

Risk of explosion.

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## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	liquid
Colour	colourless
Odour	characteristic pungent
Odour Threshold	10 - 20000 ppm
pH	No information available.
Melting point	-98 °C
Boiling point/boiling range	64.5 °C at 1,013 hPa
Flash point	9.7 °C at 1,013 hPa  Method: Tested according to Directive 92/69/EEC.
Evaporation rate	6.3 Reference substance: Diethylether  1.9 Reference substance: n-butyl acetate
Flammability (solid, gas)	No information available.
Lower explosion limit	5.5 %(V)
Upper explosion limit	44 %(V)
Vapour pressure	128 hPa at 20 °C
Relative vapour density	1.11
Density	0.792 g/cm <sup>3</sup> at 20 °C
Relative density	No information available.
Water solubility	completely miscible



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Partition coefficient: n-octanol/water	log Pow: -0.77 (experimental) (Lit.) Bioaccumulation is not expected.
Auto-ignition temperature	No information available.
Decomposition temperature	Distillable in an undecomposed state at normal pressure.
Viscosity, dynamic	0.597 mPa.s at 20 °C
Explosive properties	Not classified as explosive.
Oxidizing properties	none

## 9.2 Other data

Ignition temperature	420 °C at 1,013 hPa Method: DIN 51794
Minimum ignition energy	0.14 mJ
Viscosity, kinematic	0.54 - 0.59 mm <sup>2</sup> /s at 20 °C
Conductivity	< 1 µS/cm

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## SECTION 10. Stability and reactivity

### 10.1 Reactivity

Vapours may form explosive mixture with air.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Risk of explosion with:

Oxidizing agents, perchloric acid, perchlorates, salts of oxyhalogenic acids, chromium(VI) oxide, halogen oxides, nitrogen oxides, nonmetallic oxides, chromosulfuric acid, chlorates, hydrides, zinc diethyl, halogens, powdered magnesium, hydrogen peroxide, Nitric acid, sulphuric acid, permanganic acid, sodium hypochlorite

Exothermic reaction with:

acid halides, Acid anhydrides, Reducing agents, acids, Bromine, Chlorine, Chloroform, magnesium, tetrachloromethane, CYANURIC CHLORIDE

Risk of ignition or formation of inflammable gases or vapours with:

Fluorine, Oxides of phosphorus, Raney-nickel

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Generates dangerous gases or fumes in contact with:  
Alkaline earth metals, Alkali metals

## 10.4 Conditions to avoid

Warming.

## 10.5 Incompatible materials

various plastics, magnesium, zinc alloys

## 10.6 Hazardous decomposition products

no information available

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## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### *Acute oral toxicity*

Acute toxicity estimate: 100.1 mg/kg

Expert judgement

LDLO human: 143 mg/kg

(RTECS)

Symptoms: Nausea, Vomiting

#### *Acute inhalation toxicity*

LC50 Rat: 131.25 mg/l; 4 h ; vapour

(ECHA)

Symptoms: Irritation symptoms in the respiratory tract.

#### *Acute dermal toxicity*

LD50 Rabbit: ca. 17,100 mg/kg

(External MSDS)

Acute toxicity estimate : 300.1 mg/kg

Expert judgement

#### *Skin irritation*

Rabbit

Result: No skin irritation

(ECHA)

Drying-out effect resulting in rough and chapped skin.

#### *Eye irritation*

Rabbit

Result: No eye irritation

(ECHA)

Possible damages: Irritations of mucous membranes

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## *Sensitisation*

Sensitisation test: Guinea pig  
Result: negative  
Method: OECD Test Guideline 406

## *Germ cell mutagenicity*

### *Genotoxicity in vivo*

Micronucleus test  
Mouse  
male and female  
Intraperitoneal injection  
Bone marrow  
Result: negative  
Method: OECD Test Guideline 474

## *Genotoxicity in vitro*

Ames test  
Salmonella typhimurium  
Result: negative  
Method: OECD Test Guideline 471

### In vitro mammalian cell gene mutation test

Chinese hamster lung cells  
Result: negative  
Method: OECD Test Guideline 476

## *Carcinogenicity*

This information is not available.

## *Reproductive toxicity*

This information is not available.

## *Teratogenicity*

This information is not available.

## *CMR effects*

### Carcinogenicity:

Did not show carcinogenic effects in animal experiments.

### Mutagenicity:

Based on available data the classification criteria are not met.

### Teratogenicity:

Based on available data the classification criteria are not met.

### Reproductive toxicity:

Based on available data the classification criteria are not met.

## *Specific target organ toxicity - single exposure*

Causes damage to organs.

Target Organs: Eyes

## *Specific target organ toxicity - repeated exposure*

This information is not available.

## *Aspiration hazard*

This information is not available.

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## 11.2 Further information

Systemic effects:

acidosis, drop in blood pressure, agitation, spasms, inebriation, Dizziness, Drowsiness, Headache, Impairment of vision, blindness, narcosis, Coma

Symptoms may be delayed.

Damage to:

Liver, Kidney, Cardiac, Irreversible damage of the optical nerve.

Other dangerous properties can not be excluded.

This substance should be handled with particular care.

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## SECTION 12. Ecological information

### 12.1 Toxicity

*Toxicity to fish*

flow-through test LC50 *Lepomis macrochirus* (Bluegill sunfish): 15,400 mg/l; 96 h

Analytical monitoring: yes

US-EPA

*Toxicity to daphnia and other aquatic invertebrates*

static test EC50 *Daphnia magna* (Water flea): > 10,000 mg/l; 48 h

DIN 38412

*Toxicity to algae*

static test EC50 *Pseudokirchneriella subcapitata* (green algae): ca. 22,000 mg/l; 96

h

OECD Test Guideline 201

*Toxicity to bacteria*

static test IC50 activated sludge: > 1,000 mg/l; 3 h

Analytical monitoring: yes

OECD Test Guideline 209

*Toxicity to fish (Chronic toxicity)*

NOEC *Oryzias latipes* (Orange-red killifish): 7,900 mg/l; 200 h

(External MSDS)

### 12.2 Persistence and degradability

*Biodegradability*

99 %; 30 d

OECD Test Guideline 301D

Readily biodegradable

*Biochemical Oxygen Demand (BOD)*

600 - 1,120 mg/g (5 d)

(IUCLID)

*Chemical Oxygen Demand (COD)*

1,420 mg/g

(IUCLID)

*Theoretical oxygen demand (ThOD)*

1,500 mg/g

(Lit.)

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*Ratio BOD/ThBOD*

BOD5 76 %

Closed Bottle test

## **12.3 Bioaccumulative potential**

*Partition coefficient: n-octanol/water*

log Pow: -0.77

(experimental)

(Lit.) Bioaccumulation is not expected.

## **12.4 Mobility in soil**

No information available.

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

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC)

No 1907/2006, Annex XIII.

## **12.6 Other adverse effects**

*Surface tension*

22.6 mN/m

at 20 °C

*Stability in water*

2.2 yr

reaction with hydroxyl radicals (IUCLID)

Discharge into the environment must be avoided.

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## SECTION 13. Disposal considerations

### *Waste treatment methods*

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Notice Directive on waste 2008/98/EC.

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## SECTION 14. Transport information

### Land transport (ADR/RID)

<b>14.1 UN number</b>	UN 1230
<b>14.2 Proper shipping name</b>	METHANOL
<b>14.3 Class</b>	3 (6.1)
<b>14.4 Packing group</b>	II
<b>14.5 Environmentally hazardous</b>	--
<b>14.6 Special precautions for user</b>	yes
Tunnel restriction code	D/E

### Inland waterway transport (ADN)

Not relevant

### Air transport (IATA)

<b>14.1 UN number</b>	UN 1230
<b>14.2 Proper shipping name</b>	METHANOL
<b>14.3 Class</b>	3 (6.1)
<b>14.4 Packing group</b>	II
<b>14.5 Environmentally hazardous</b>	--
<b>14.6 Special precautions for user</b>	no

### Sea transport (IMDG)

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**14.1 UN number** UN 1230  
**14.2 Proper shipping name** METHANOL  
**14.3 Class** 3 (6.1)  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** yes  
EmS F-E S-D

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not relevant

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## SECTION 15. Regulatory information

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

#### *EU regulations*

Major Accident Hazard Legislation SEVESO III  
Methanol  
22  
Quantity 1: 500 t  
Quantity 2: 5,000 t

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Substances of very high concern (SVHC) 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  $\geq 0.1\%$  (w/w).

#### *National legislation*

Storage class 3

### 15.2 Chemical safety assessment

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For this product a chemical safety assessment was not carried out.

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## SECTION 16. Other information

### Full text of H-Statements referred to under sections 2 and 3.

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.

### Training advice

Provide adequate information, instruction and training for operators.

### Labelling

*Hazard pictograms*



*Signal word*

Danger

*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).

*Precautionary statements*

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P240 Ground/bond container and receiving equipment.  
P280 Wear protective gloves/ protective clothing.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/physician.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).



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*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*

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## EXPOSURE SCENARIO 1 (Industrial use)

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### 1. Industrial use Reagent for analysis, Solvent, Chemical production)

#### Sectors of end-use

- SU 3* Industrial uses: Uses of substances as such or in preparations at industrial sites  
*SU9* Manufacture of fine chemicals  
*SU 10* Formulation [mixing] of preparations and/ or re-packaging (excluding alloys)

#### Chemical product category

- PC21* Laboratory chemicals

#### Process categories

- PROC1* Use in closed process, no likelihood of exposure  
*PROC2* Use in closed, continuous process with occasional controlled exposure  
*PROC3* Use in closed batch process (synthesis or formulation)  
*PROC4* Use in batch and other process (synthesis) where opportunity for exposure arises  
*PROC5* Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)  
*PROC8a* Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities  
*PROC8b* Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities  
*PROC9* Transfer of substance or preparation into small containers (dedicated filling line, including weighing)  
*PROC10* Roller application or brushing  
*PROC15* Use as laboratory reagent

#### Environmental Release Categories

- ERC1* Manufacture of substances  
*ERC2* Formulation of preparations  
*ERC4* Industrial use of processing aids in processes and products, not becoming part of articles  
*ERC6a* Industrial use resulting in manufacture of another substance (use of intermediates)  
*ERC6b* Industrial use of reactive processing aids
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### 2. Contributing scenarios: Operational conditions and risk management measures

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#### 2.1 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC15

#### Product characteristics

- Concentration of the Substance in Mixture/Article Covers the percentage of the substance in the product up to 100 % (unless stated differently).  
Physical Form (at time of use) High volatile liquid

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according to Regulation (EC) No. 1907/2006

Catalogue No. 106009  
Product name Methanol for analysis EMSURE® ACS,ISO,Reag. Ph Eur

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## Frequency and duration of use

Frequency of use 5 days/week  
Frequency of use < 8 hours/day

## Other operational conditions affecting workers exposure

Outdoor / Indoor Indoor with local exhaust ventilation (LEV)

## Technical conditions and measures

Provide extraction ventilation at points where emissions occur.

## Organisational measures to prevent /limit releases, dispersion and exposure

Covers daily exposures up to 8 hours.

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## 3. Exposure estimation and reference to its source

### Environment

A chemical safety assessment was performed according REACH Article 14(3), Annex I, sections 3 (Environmental Hazard Assessment) and 4 (PBT/vPvB Assessment). As no hazard was identified, an exposure assessment and risk characterisation is not necessary (REACH Annex I section 5.0).

### Workers

CS	Use descriptor	Exposure duration, route, effect	RCR	Exposure Assessment Method
2.1	PROC1		< 1	ECETOC TRA
2.1	PROC2		< 1	ECETOC TRA
2.1	PROC3		< 1	ECETOC TRA
2.1	PROC4		< 1	ECETOC TRA
2.1	PROC5		< 1	ECETOC TRA
2.1	PROC8a		< 1	ECETOC TRA
2.1	PROC8b		< 1	ECETOC TRA
2.1	PROC9		< 1	ECETOC TRA
2.1	PROC10		< 1	ECETOC TRA
2.1	PROC15		< 1	ECETOC TRA

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## 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

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# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.

106009

Product name

Methanol for analysis EMSURE® ACS,ISO,Reag. Ph Eur

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Please refer to the following documents: ECHA Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system; ECHA Guidance for downstream users; ECHA Guidance on information requirements and chemical safety assessment Part D: Exposure Scenario Building, Part E: Risk Characterisation and Part G: Extending the SDS; VCI/Cefic REACH Practical Guides on Exposure Assessment and Communications in the Supply Chain; CEFIC Guidance Specific Environmental Release Categories (SPERCs).

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## EXPOSURE SCENARIO 2 (Professional use)

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### 1. Professional use Reagent for analysis, Solvent, Chemical production)

#### Sectors of end-use

*SU 22* Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

#### Chemical product category

*PC21* Laboratory chemicals

#### Process categories

*PROC15* Use as laboratory reagent

#### Environmental Release Categories

*ERC2* Formulation of preparations

*ERC6a* Industrial use resulting in manufacture of another substance (use of intermediates)

*ERC6b* Industrial use of reactive processing aids

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### 2. Contributing scenarios: Operational conditions and risk management measures

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#### 2.1 Contributing scenario controlling worker exposure for: PROC15

##### Product characteristics

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	High volatile liquid

##### Frequency and duration of use

Frequency of use	5 days/week
Frequency of use	< 8 hours/day

##### Other operational conditions affecting workers exposure

Outdoor / Indoor	Indoor with local exhaust ventilation (LEV)
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##### Technical conditions and measures

Provide extraction ventilation at points where emissions occur.

##### Organisational measures to prevent /limit releases, dispersion and exposure

Covers daily exposures up to 8 hours.

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### 3. Exposure estimation and reference to its source

#### Environment

A chemical safety assessment was performed according REACH Article 14(3), Annex I, sections 3 (Environmental Hazard Assessment) and 4 (PBT/vPvB Assessment). As no hazard was identified, an exposure assessment and risk characterisation is not necessary (REACH Annex I section 5.0).

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 106009  
Product name Methanol for analysis EMSURE® ACS,ISO,Reag. Ph Eur

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## Workers

CS	Use descriptor	Exposure duration, route, effect	RCR	Exposure Assessment Method
2.1	PROC15		< 1	ECETOC TRA

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## 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Please refer to the following documents: ECHA Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system; ECHA Guidance for downstream users; ECHA Guidance on information requirements and chemical safety assessment Part D: Exposure Scenario Building, Part E: Risk Characterisation and Part G: Extending the SDS; VCI/Cefic REACH Practical Guides on Exposure Assessment and Communications in the Supply Chain; CEFIC Guidance Specific Environmental Release Categories (SPERCs).

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