Safety Data Sheet (SDS) According to the REACH Regulation (EC) No. 1907/2006

Issuing Date: 2018-05-14 **Revision Date:** 2024-11-08 **Version:** 2

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

1.1. Product identifier

Product No 13604
Product name Methanol

Contains

Chemical name	Index No.	CAS No
methanol (90 - 100%)	603-001-00-X	67-56-1

Formula CH_4O
Molecular Weight 32.04 g/mol

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

Identified uses .

1.3. Details of the supplier of the safety data sheet

Importer
Cell Signaling Technology Europe B.V.
Dellaertweg 9b
2316 WZ Leiden
The Netherlands
TEL: +31 (0)71 7200 200
FAX: +31 (0)71 891 0019

Manufacturer
Cell Signaling Technology, Inc.
3 Trask Lane
Danvers, MA 01923
United States
TEL: +1 978 867 2300
FAX: +1 978 867 2400

Website www.cellsignal.com
E-mail Address info@cellsignal.eu

1.4. Emergency telephone number

CHEMTREC 24 hours a day, 7 days a week, 365 days a year
+1 703 527 3887 (INTERNATIONAL) +1 800 424 9300 (NORTH AMERICA)

Europe 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Acute oral toxicity	Category 3 - (H301)
Acute dermal toxicity	Category 3 - (H311)
Acute inhalation toxicity	Category 3 - (H331)
Specific target organ toxicity - single exposure (STOT SE)	Category 1 - (H370)

Flammable liquids	Category 2 - (H225)

2.2. Label elements

Signal word
Danger

Hazard statement(s)
H225 - Highly flammable liquid and vapor.
H301 - Toxic if swallowed.
H311 - Toxic in contact with skin.
H331 - Toxic if inhaled.
H370 - Causes damage to organs.

Precautionary statement(s)
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P330 - Rinse mouth.
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards

No information available.

For the full text of the H-phrases & EUH-phrases mentioned in this Section, see Section 16

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula CH_4O

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number

methanol	67-56-1	100	200-659-6	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225)	no data available

For the full text of the H-phrases & EUH-phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. Call a doctor if you feel unwell.

Skin contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention immediately if symptoms occur.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Ingestion Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Immediate medical attention is required.

Protection of first-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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

Irritating to eyes, respiratory system and skin. May cause redness and tearing of the eyes. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.

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

Notes to physician Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical, CO2, water spray or alcohol-resistant foam

Unsuitable Extinguishing Media Do not scatter spilled material with high pressure water streams

5.2. Special hazards arising from the substance or mixture

Extremely flammable. Thermal decomposition can lead to release of toxic and corrosive gases/vapors.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation. Wash thoroughly after handling.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Should not be released into the environment. Prevent product from entering drains. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.
Methods for cleaning up Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

6.4. Reference to other sections

See Sections 8 & 13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. There is a hazard associated with rags, paper or any other material used to remove spills which become soaked with product. Avoid accumulation of these: they are to be disposed of safely after use. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Use as a laboratory reagent.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values					
Chemical name	**European Union**	**United Kingdom**	**France**	**Spain**	**Germany**
methanol	TWA 200 ppm TWA 260 mg/m³ S*	STEL 250 ppm STEL 333 mg/m³ TWA 200 ppm TWA 266 mg/m³ Skin	TWA 200 ppm TWA 260 mg/m³ STEL 1000 ppm STEL 1300 mg/m³ P*	TWA 200 ppm TWA 266 mg/m³ S*	TWA: 100 ppm TWA: 130 mg/m³ Skin Ceiling / Peak: 200 ppm Ceiling / Peak: 260 mg/m³ H*
Chemical name	**Italy**	**Portugal**	**Netherlands**	**Finland**	**Denmark**
methanol	TWA 200 ppm TWA 260 mg/m³ Pelle*	TWA 200 ppm TWA 260 mg/m³ STEL 250 ppm P*	Huid* TWA 100 ppm TWA 133 mg/m³	TWA 200 ppm TWA 270 mg/m³ STEL 250 ppm STEL 330 mg/m³ iho*	TWA 200 ppm TWA 260 mg/m³ STEL 400 ppm STEL 520 mg/m³ H*

Chemical name	Austria	Switzerland	Poland	Norway	Ireland
methanol	H* STEL 800 ppm STEL 1040 mg/m³ TWA 200 ppm TWA 260 mg/m³	SS-C** H* TWA 200 ppm TWA 260 mg/m³ STEL 400 ppm STEL 520 mg/m³	TWA 100 mg/m³ STEL 300 mg/m³	TWA 100 ppm TWA 130 mg/m³ S* STEL 150 ppm STEL 162.5 mg/m³	TWA 200 ppm TWA 260 mg/m³ STEL 600 ppm STEL 780 mg/m³ Skin

Biological limit values					
Chemical name	**European Union**	**United Kingdom**	**France**	**Spain**	**Germany**
methanol				15	Biologische Grenzwerte nach TRGS 903 sind zu beachten Biologische Grenzwerte nach die Verordnung zur arbeitsmedizinischen Vorsorge vom 18. Dezember 2008 sind zu beachten
Chemical name	**Austria**	**Switzerland**	**Poland**	**Norway**	**Ireland**
methanol		30 936			

8.2. Exposure controls

Appropriate engineering controls
Showers, eyewash stations, and ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection	Tightly fitting safety goggles.
Skin protection	Wear protective gloves and protective clothing.
Hand protection	Impervious gloves.
Other	Impervious gloves Antistatic boots Wear fire/flame resistant/retardant clothing Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment.

Environmental Exposure Controls
No information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid - Clear
Color	Colorless
Odor	No information available

Property	Values	Remarks • Method
pH	No information available	No information available
Melting point/freezing point	-98 °C	
Boiling point or initial boiling point and boiling range	64.7 °C	
Flash point	9 °C	Closed cup
Evaporation rate	No information available	No information available
Flammability	No information available	No information available
Upper/lower flammability or explosive limits	Lower: 6% - Upper: 36%	No information available
Vapor pressure	552 hPa	No information available
Relative vapor density	1.11	

Density and/or relative density	0.791 g/ml		@ 25 °C
Solubility	Soluble in water		No information available
Partition coefficient: n-octanol/water	-0.77		
Autoignition temperature	455 °C		@ 1013 hPa
Decomposition temperature	No information available		No information available.
Viscosity	No information available	0.6 mPa s	@ 20 °C
Explosive properties	No information available		No information available
Oxidizing properties	No information available		No information available

9.2. Other information

Softening point	No information available
Molecular Weight	32.04 g/mol
Solubility in other solvents	Acetone, Ether, Ethanol
VOC content	No information available
Liquid Density	No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization	Hazardous polymerization does not occur.
Hazardous reactions	None under normal processing

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxic by inhalation, in contact with skin and if swallowed.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
methanol	= 6200 mg/kg (Rat) = 1400 (primate)	= 15840 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h

Unknown Acute Toxicity No information available.

LD50 Oral: 1400 mg/kg
LD50 Dermal: 15800 mg/kg
LC50 Inhalation: 22500 ppm
Information on likely routes of exposure

Inhalation Toxic by inhalation. Causes headache, drowsiness or other effects to the central nervous system.
Eye contact Causes serious eye irritation.
Skin contact May be absorbed through the skin in harmful amounts.
Ingestion May be fatal or cause blindness if swallowed.

Symptoms Irritating to eyes, respiratory system and skin. May cause redness and tearing of the eyes. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.

Skin corrosion/irritation No information available.
Serious eye damage/eye irritation Irritating to eyes.
Sensitization No information available.
Mutagenic effects No information available.
Carcinogenicity No information available.
Reproductive toxicity
STOT - single exposure Central nervous system. Respiratory system. Kidney. Gastrointestinal tract (GI). Eyes.
STOT - repeated exposure No information available.
Aspiration Hazard No information available.

11.2. Information on other hazards

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
methanol	EC50 22,000 mg/l (Scenedesmus capricornutum) 96 h	LC50 28200 mg/L (Pimephales promelas) 96 h LC50 100 mg/L (Pimephales promelas) 96 h LC50 19500 - 20700 mg/L (Oncorhynchus mykiss) 96 h LC50 18 - 20 mL/L (Oncorhynchus mykiss) 96 h LC50 13500 - 17600 mg/L (Lepomis macrochirus) 96 h	EC50 > 10000 mg/l (Daphnia magna) 48 h

12.2. Persistence and degradability

Readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation Does not bioaccumulate.

Chemical name	Octanol-Water Partition Coefficient
methanol	-0.77

Bioconcentration factor (BCF) 1.0

12.4. Mobility in soil

Will likely be mobile in the environment due to its water solubility.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.
Contaminated packaging	Empty containers may contain flammable or explosive vapours. Empty containers should be taken to an approved waste handling site for recycling or disposal.
Other information	Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

IMDG/IMO

14.1 UN number	UN1230
14.2 UN proper shipping name	Methanol
14.3 Transport hazard class(es)	3, (6.1)
14.4 Packing group	II
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Maritime transport in bulk according to IMO instruments	Not regulated

ADR/RID

14.1 UN number	UN1230
14.2 UN proper shipping name	Methanol
14.3 Transport hazard class(es)	3 (6.1)
14.4 Packing group	II
14.5 Environmental hazards	None
14.6 Special precautions for user	None

IATA

14.1 UN number	UN1230
14.2 UN proper shipping name	Methanol
14.3 Transport hazard class(es)	3 (6.1)
14.4 Packing group	II
14.5 Environmental hazards	None
14.6 Special precautions for user	None

SECTION 15: Regulatory information

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

Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

This product does not contain Substances of Very High Concern (SVHC).

SEVESO Directive Information

Chemical name	96/82/EC - Qualifying Quantities
methanol	500 tonne (Lower-tier) 5000 tonne (Upper-teir)

International inventories

TSCA 8(b)	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

International inventories legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out

SECTION 16: Other information

Full text of H-Statements referred to under Sections 2 and 3

H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H331 - Toxic if inhaled
H370 - Causes damage to organs if inhaled
H225 - Highly flammable liquid and vapor

Classification procedure: Expert judgment and weight of evidence determination.
Issuing Date: 2018-05-14
Revision Date: 2024-11-08

Disclaimer

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