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

Issuing Date: 2018-05-14 **Version:** 1

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

1.1. Product identifier

Product No 13604

Product name Methanol

Reach registration number This substance/mixture contains only ingredients which have been registered, or are exempt from registration, according to Regulation (EC) No. 1907/2006.

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 For research use only

1.3. Details of the supplier of the safety data sheet

Importer (Applicable in EU only)
Cell Signaling Technology Europe B.V.
Schuttersveld 2
2316 ZA Leiden
The Netherlands
TEL: +31 (0)71 7200 200
FAX: +31 (0)71 891 0098

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

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

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 nature	Monoconstituent substance.

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 Immediate medical attention is required. Move to fresh air. If not breathing, give artificial respiration.

Skin contact Immediate medical attention is required. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

Eye contact Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.

Ingestion Do NOT induce vomiting. Immediate medical attention is required. Never give anything by mouth to an unconscious person. Drink plenty of water. If swallowed, do not induce vomiting - seek medical advice. Rinse mouth.

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

Irritation to eyes, skin, nose, throat; nausea, vomiting, abdominal pain, lassitude (weakness, exhaustion); dizziness, stupor, convulsions, central nervous system depression.

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: Alcohol-resistant foam. Dry powder, Water.

Small Fires Small methanol fires can be extinguished with portable, dry chemical extinguishers and/or water spray provided the volume of water is at least four times the volume of the methanol pool. However, this is only advisable if there is a way to contain the water, otherwise the methanol fire can spread.

Unsuitable Extinguishing Media No information available.

5.2. Special hazards arising from the substance or mixture

Methanol flame is low temperature and non-luminous, therefore, when methanol catches fire, it burns with a clear blue flame that is very difficult to see in bright sun light.

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 Use personal protective equipment. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Heat, flames and sparks. Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevention of fire and explosion. A vapor suppressing foam may be used to reduce vapors. Try to prevent the material from entering drains or water courses. Do not allow material to contaminate ground water system. 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. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Cover liquid spill with sand, earth or other noncombustible absorbent material. Sweep up and shovel into suitable containers for disposal.

6.4. Reference to other sections

See Sections 8 & 13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. 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. Avoid static electricity build up with connection to earth. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Remove and wash contaminated clothing before re-use.

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/m^3 S*	STEL 250 ppm STEL 333 mg/m^3 TWA 200 ppm TWA 266 mg/m^3 Skin	TWA 200 ppm TWA 260 mg/m^3 STEL 1000 ppm STEL 1300 mg/m^3 P*	TWA 200 ppm TWA 266 mg/m^3 S*	TWA: 200 ppm TWA: 270 mg/m^3 Skin Ceiling / Peak: 800 ppm Ceiling / Peak: 1080 mg/m^3 H*

Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
methanol	TWA 200 ppm TWA 260 mg/m³ Pelle*	TWA 200 ppm STEL 250 ppm P*	Huid* TWA 133 mg/m³ TWA 100 ppm	TWA 200 ppm TWA 270 mg/m³ STEL 250 ppm STEL 330 mg/m³ iho*	TWA 200 ppm TWA 260 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 800 ppm STEL 1040 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 Skin

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

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
Hand protection Impervious gloves.
Other Impervious gloves. Antistatic boots. Wear fire/flame resistant/retardant clothing. Wear suitable protective clothing.
Respiratory protection When using a mask or half mask :. Respirator with a vapor filter (EN 141). Type AX. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

Environmental Exposure Controls
No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid
Appearance Clear
Color Colorless
Odor No information available
Odor Threshold No information available

Property	Values	Remarks • Method
pH		No information available
Melting point/freezing point	-98 °C	
Initial boiling point and boiling range	64.7 °C	
Flash point	9.7 °C	Closed cup

Evaporation rate		No information available
Flammability (solid, gas)		No information available
Upper flammability limit	36%	No information available
Lower flammability limit	6%	No information available
Vapor pressure	130.3 hPa	@ 20 °C
Vapor density	1.11	
Relative density	0.791 g/ml	@ 25 °C
Solubility		No information available
Partition coefficient: n-octanol/water	-0.77	
Autoignition temperature	455 °C	@ 1013 hPa
Decomposition temperature		No information available.
Viscosity		No information available
Explosive properties		No information available
Oxidizing properties		No information available

9.2. Other information

Softening point	No information available
Molecular Weight	32.04 g/mol
Solubility in other solvents	No information available
VOC content	No information available
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 toxicological effects

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

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
methanol	1187 mg/kg (Rat)	15800 mg/kg (Rabbit)	83.2 mg/L (Rat) 4 h

Information on likely routes of exposure

Inhalation Toxic by inhalation. Causes headache, drowsiness or other effects to the central nervous

	system.
Eye contact	There is no data available for this product.
Skin contact	May be absorbed through the skin in harmful amounts.
Ingestion	May be fatal or cause blindness if swallowed.
Symptoms	Irritation to eyes, skin, nose, throat; nausea, vomiting, abdominal pain, lassitude (weakness, exhaustion); dizziness, stupor, convulsions, central nervous system depression.
Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Sensitization	No information available.
Mutagenic effects	No information available.
Carcinogenic effects	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	Central nervous system. Respiratory system. Kidney. Gastrointestinal tract (GI). Eyes.
STOT - repeated exposure	No information available.
Aspiration Hazard	No information available.
Other information	No information available.

SECTION 12: Ecological information

12.1. Toxicity

No information available.

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 13500 - 17600 mg/L (Lepomis macrochirus) 96 h	EC50 > 10000 mg/l (Daphnia magna) 48 h

12.2. Persistence and degradability

Product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation	Does not bioaccumulate.
Bioconcentration factor (BCF)	1.0

Chemical Name	Octanol-Water Partition Coefficient
methanol	-0.77

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. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Empty containers may contain flammable or explosive vapours. Do not burn, or use a cutting torch on, the empty drum. 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
EmS No.	F-E, S-D
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated

ADR/RID

14.1 UN number	UN1230
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	3
14.4 Packing group	II
14.5 Environmental hazards	None
14.6 Special precautions for user	None
Classification Code	FT1
Tunnel Restriction Code	(D/E)

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
Special provisions	A104, A113
Excepted Quantity	E2

SECTION 15: Regulatory information

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

Candidate List of Substances of Very High Concern for Authorization Information

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

Disclaimer

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