

**Safety Data Sheet (SDS)** According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

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

**Revision Date:** 2024-11-08

**Version:** 2

## SECTION 1. Identification

### Product identifier

**Product No** 13604  
**Product name** Methanol  
**UN number** UN1230

### Recommended use of the chemical and restrictions on use

**Identified uses** .

### Manufacturer, importer, supplier

**Manufacturer address** 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  
**Email address** support@cellsignal.com  
**Emergency telephone number** In case of emergency call CHEMTREC 1-800-424-9300

## SECTION 2. Hazard(s) identification

### Classification

This substance/mixture is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<b>Acute oral toxicity</b>	Category 3
<b>Acute dermal toxicity</b>	Category 3
<b>Acute inhalation toxicity</b>	Category 3
<b>Specific target organ toxicity - single exposure (STOT SE)</b>	Category 1
<b>Flammable liquids</b>	Category 2

### GHS Label elements, including precautionary statements



**Signal Word**

Danger

**Hazard statement(s)**

Highly flammable liquid and vapor.

Toxic if swallowed.

Toxic in contact with skin.

Toxic if inhaled.

Causes damage to organs.

**Precautionary Statement(s)**

Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

Keep container tightly closed.

Ground/Bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash face, hands and any exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Call a POISON CENTER or doctor/physician if you feel unwell

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

Call a POISON CENTER or doctor/physician if you feel unwell

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container to an approved waste disposal plant.

**Supplementary Hazard Information****Hazards not otherwise classified (HNOC)**

Not applicable.

**SECTION 3. Composition/information on ingredients**

**Formula** CH<sub>4</sub>O  
**Molecular Weight** 32.04 g/mol

Chemical name	CAS No	Weight-%
methanol	67-56-1	100

**SECTION 4. First-aid measures**

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

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

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

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

**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.

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

Treat symptomatically.

**Advice for emergency responders**

<b>General advice</b>	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
<b>Protection of first-aiders</b>	Use personal protective equipment Avoid contact with skin, eyes and clothing

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**SECTION 5. Fire-fighting measures**

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**Extinguishing media**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical, CO<sub>2</sub>, water spray or alcohol-resistant foam

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

**Specific hazards arising from the chemical**

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

**Explosion Data**

**Sensitivity to Mechanical Impact** None  
**Sensitivity to Static Discharge** May be ignited by heat, sparks or flames

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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**SECTION 6. Accidental release measures**

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**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.

**Other information** No information available.

**For emergency responders** Use personal protection recommended in Section 8.

**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.

**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.

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Clean contaminated surface thoroughly.

## SECTION 7. Handling and storage

### 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.

### Conditions for safe storage, including any incompatibilities

<b>Technical measures/Storage conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Packaging material</b>	No information available
<b>Incompatible products</b>	Oxidizing agents

## SECTION 8. Exposure controls/personal protection

### Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH REL
methanol	S* STEL: 250 ppm TWA: 200 ppm	TWA : 200 ppm TWA : 260 mg/m <sup>3</sup>	IDLH : 6000 ppm TWA : 200 ppm TWA : 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 325 mg/m <sup>3</sup>

### Appropriate engineering controls

Showers, eyewash stations, and ventilation systems.

### Individual protection measures, such as personal protective equipment

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

<b>Eye/face protection</b>	Tightly fitting safety goggles
<b>Skin and body protection</b>	Wear protective gloves/clothing.
<b>Respiratory protection</b>	In case of insufficient ventilation wear suitable respiratory equipment.
<b>Hygiene measures</b>	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.

## SECTION 9. Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	Clear
<b>Color</b>	Colorless
<b>Odor</b>	No information available
<b>Odor Threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u> <u>Method</u>
pH	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	
Flammability	No information available	
Lower explosion limit	6%	
Upper explosion limit	36%	
Vapor pressure	552 hPa	
Relative vapor density	1.11	
Density and/or relative density	0.791 g/ml	@ 25 °C
Solubility	Soluble in water	
Solubility in other solvents	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	
Viscosity, dynamic	0.6 mPa s	@ 20 °C
<u>Other information</u>		
Softening point	No information available	
Molecular Weight	32.04 g/mol	
VOC content	No information available	
Liquid Density	No information available	
Bulk density	No information available	

## SECTION 10. Stability and reactivity

### Reactivity

No information available.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

<b>Hazardous reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	None under normal processing.

### Conditions to Avoid

Heat, flames and sparks

### Incompatible Materials

Oxidizing agents

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors

## SECTION 11. Toxicological information

### Information on likely routes of exposure

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

**Information on toxicological effects**

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

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Symptoms</b>	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.
<b>Serious eye damage/eye irritation</b>	Irritating to eyes.
<b>Sensitization</b>	No information available.
<b>Mutagenic effects</b>	No information available.
<b>Carcinogenicity</b>	No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Reproductive toxicity</b>	Central nervous system. Respiratory system. Kidney. Gastrointestinal tract (GI). Eyes.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Neurological effects</b>	No information available.
<b>Aspiration Hazard</b>	No information available.
<b>LD50 Oral:</b>	1400 mg/kg
<b>LD50 Dermal:</b>	15800 mg/kg
<b>LC50 Inhalation:</b>	22500 ppm

**SECTION 12. Ecological information****Ecotoxicity**

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

<b>Persistence and degradability</b>	Readily biodegradable
<b>Mobility</b>	Will likely be mobile in the environment due to its water solubility
<b>Bioaccumulation</b>	Does not bioaccumulate

Chemical name	Octanol-Water Partition Coefficient
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methanol	-0.77
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**Other adverse effects**

No information available.

## SECTION 13. Disposal considerations

**Waste Disposal Methods**

Should not be released into the environment. Dispose of in accordance with all applicable national environmental laws and regulations.

**Disposal considerations**

Do not empty into drains; dispose of this material and its container in a safe way. Dispose of wastes in an approved waste disposal facility.

## SECTION 14. Transport information

**DOT**

<b>UN number</b>	UN1230
<b>UN proper shipping name</b>	Methanol
<b>Transport hazard class(es)</b>	3 (6.1)
<b>Packing group</b>	II

**IATA**

<b>UN number</b>	UN1230
<b>UN proper shipping name</b>	Methanol
<b>Transport hazard class(es)</b>	3 (6.1)
<b>Packing group</b>	II


## SECTION 15. Regulatory information

**North American Inventory Listing**

All components of this product are NOT included on the Toxic Substance Control Act (TSCA) Inventory, DSL, or NDSL All components of this product are NOT included on DSL or NDSL

Chemical name	TSCA 8(b)	TSCA 12(b)	DSL	NDSL
methanol	Listed	Not Listed	Listed	Not Listed

**Canadian Workplace Hazardous Materials Information System (WHMIS) Classification**

	Class B2 - Flammable Liquids Class D1B - Toxic Material at >= 1% Class D2B - Toxic Material at >= 1%
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**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical

or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CAS No	SARA 313 - Threshold Values %
methanol	67-56-1	1.0

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
methanol	5000 lb	Not Listed

**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical name	California Prop. 65
methanol	Developmental

**U.S. State Right-to-Know Regulations**

This product contains the following U.S. State Right to Know chemicals:

Chemical name	New Jersey	Massachusetts	Pennsylvania
methanol	Listed	Listed	Listed

**U.S. FIFRA Label Information**

This product does not contain any substances regulated as pesticides.

**US Commerce Department - Export Administration Regulations Information**

This product does not contain any substances regulated under the Chemical Weapons Convention (CWC).

**U.S. Drug Enforcement Administration Information**

This product does not contain any substances regulated under the DEA.

**SECTION 16. Other information**

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**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage,



transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**