

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

**Issuing Date:** 2019-10-24

**Revision Date:** 2024-05-01

**Version:** 2

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

### 1.1. Product identifier

**Product No** 47746  
**Product name** 4% Formaldehyde, Methanol Free

### Contains

Chemical name	Index No.	CAS No
Formaldehyde (0 - 10%)	605-001-00-5	50-00-0

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

**Identified uses** For Research Use Only. Not for Use in Diagnostic Procedures.

### 1.3. Details of the supplier of the safety data sheet

Importer	Manufacturer
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	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](http://www.cellsignal.com)  
**E-mail Address** [info@cellsignal.eu](mailto: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

<b>Skin sensitization</b>	Category 1 - (H317)
<b>Germ cell mutagenicity</b>	Category 2 - (H341)
<b>Carcinogenicity</b>	Category 1B - (H350)

**2.2. Label elements**



**Signal word**

Danger

**Hazard statement(s)**

H317 - May cause an allergic skin reaction.  
 H341 - Suspected of causing genetic defects.  
 H350 - May cause cancer.

**Precautionary statement(s)**

P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P272 - Contaminated work clothing should not be allowed out of the workplace.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
 P308 + P313 - IF exposed or concerned: Get medical advice/attention.  
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.  
 P362 + P364 - Take off contaminated clothing and wash it before reuse.  
 P405 - Store locked up.  
 P501 - Dispose of contents/container to an approved waste disposal plant.

**2.3. Other hazards**

0 % of the mixture consists of ingredient(s) of unknown acute toxicity.

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

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

Chemical name	CAS No	Weight-%	EC No	Classification (1272/2008)	REACH Registration Number
Formaldehyde	50-00-0	4	200-001-8	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 1B (H350)	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**

Use first aid treatment according to the nature of the injury. When symptoms persist or in all cases of doubt seek medical advice.

<b>Inhalation</b>	Move to fresh air in case of accidental inhalation of vapors. Consult a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Consult a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>Ingestion</b>	Drink plenty of water. If swallowed, do not induce vomiting - seek medical advice. Never give anything by mouth to an unconscious person.

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

Eye irritation. Skin irritation. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

**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**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
<b>Unsuitable Extinguishing Media</b>	No information available

**5.2. Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and 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**

<b>For non-emergency personnel</b>	Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

**6.3. Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	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.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Wear personal protective equipment. Remove and wash contaminated clothing before re-use. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product.

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

Keep container tightly closed in a dry 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
Formaldehyde		STEL 2 ppm STEL 2.5 mg/m <sup>3</sup> TWA 2 ppm TWA 2.5 mg/m <sup>3</sup>	TWA 0.5 ppm STEL 1 ppm C2	STEL 0.3 ppm STEL 0.37 mg/m <sup>3</sup> S+	TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> Skin Ceiling / Peak: 0.6 ppm Ceiling / Peak: 0.74 mg/m <sup>3</sup>
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Formaldehyde		Ceiling 0.3 ppm S+ C(A2)	STEL 0.5 mg/m <sup>3</sup> TWA 0.15 mg/m <sup>3</sup>	TWA 0.3 ppm TWA 0.37 mg/m <sup>3</sup> STEL 1 ppm STEL 1.2 mg/m <sup>3</sup> Ceiling 1 ppm Ceiling 1.2 mg/m <sup>3</sup>	Ceiling 0.3 ppm Ceiling 0.4 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Formaldehyde	H* STEL 0.5 ppm STEL 0.6 mg/m <sup>3</sup> TWA 0.5 ppm TWA 0.6 mg/m <sup>3</sup> B Ceiling 0.5 ppm Ceiling 0.6 mg/m <sup>3</sup> Sh/Sah**	SS-C** S+ TWA 0.3 ppm TWA 0.37 mg/m <sup>3</sup> C3 STEL 0.6 ppm STEL 0.74 mg/m <sup>3</sup>	TWA 0.5 mg/m <sup>3</sup> STEL 1 mg/m <sup>3</sup>	TWA 0.5 ppm TWA 0.6 mg/m <sup>3</sup> Ceiling 1 ppm Ceiling 1.2 mg/m <sup>3</sup> K** A+ STEL 0.5 ppm STEL 0.6 mg/m <sup>3</sup>	TWA 2 ppm TWA 2.5 mg/m <sup>3</sup> STEL 2 ppm STEL 2.5 mg/m <sup>3</sup>

### 8.2. Exposure controls

#### Appropriate engineering controls

Showers, eyewash stations, and ventilation systems

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

##### Eye/face protection

Safety glasses with side-shields

##### Skin protection

Wear protective gloves and protective clothing

<b>Hand protection</b>	Impervious gloves
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	In case of inadequate ventilation wear respiratory protection

**Environmental Exposure Controls**  
No information available

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

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

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	7.4	@ 20 °C
<b>Melting point/freezing point</b>	No information available	No information available
<b>Boiling point or initial boiling point and boiling range</b>	No information available	No information available
<b>Flash point</b>	No information available	No information available.
<b>Evaporation rate</b>	No information available	No information available
<b>Flammability</b>	No information available	No information available
<b>Upper/lower flammability or explosive limits</b>	No information available	No information available
<b>Vapor pressure</b>	No information available	No information available
<b>Relative vapor density</b>	No information available	No information available
<b>Density and/or relative density</b>	No information available	No information available
<b>Solubility</b>	No information available.	No information available
<b>Partition coefficient: n-octanol/water</b>	No information available	No information available
<b>Autoignition temperature</b>	No information available	No information available
<b>Decomposition temperature</b>	No information available	No information available.
<b>Viscosity</b>	No information available	No information available
<b>Explosive properties</b>	No information available	No information available
<b>Oxidizing properties</b>	No information available	No information available

**9.2. Other information**

<b>Softening point</b>	No information available
<b>Molecular Weight</b>	No information available
<b>Solubility in other solvents</b>	No information available
<b>VOC content</b>	No information available
<b>Liquid Density</b>	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**

<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous reactions</b>	None under normal processing

**10.4. Conditions to avoid**

Keep away from open flames, hot surfaces and sources of ignition.

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

Carbon oxides (COx)  
 Hydrogen chloride  
 Phosphorous oxides  
 Potassium oxides  
 Sodium oxides

**SECTION 11: Toxicological information**

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

This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Formaldehyde	= 100 mg/kg (Rat)	= 270 mg/kg (Rabbit)	= 0.578 mg/L (Rat) 4 h

**Unknown Acute Toxicity** 0 % of the mixture consists of ingredient(s) of unknown acute toxicity.

<b>ATEmix (oral)</b>	2,500.00
<b>ATEmix (dermal)</b>	6,750.00
<b>ATEmix (inhalation-dust/mist)</b>	14.45

**Information on likely routes of exposure**

<b>Inhalation</b>	Harmful by inhalation.
<b>Eye contact</b>	Contact with eyes may cause irritation.
<b>Skin contact</b>	May cause sensitization by skin contact.
<b>Ingestion</b>	May be harmful if swallowed.

**Symptoms** Eye irritation. Skin irritation. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	Irritating to eyes.
<b>Sensitization</b>	May cause sensitization by inhalation and skin contact.
<b>Mutagenic effects</b>	Substances which should be regarded as being mutagenic to man.
<b>Carcinogenicity</b>	This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

Chemical name	European Union	IARC
Formaldehyde	Carc. 1B	1

<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	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
Formaldehyde	-	LC50 22.6 - 25.7 mg/L (Pimephales promelas) 96 h LC50 1510 µg/L (Lepomis macrochirus) 96 h LC50 23.2 - 29.7 mg/L (Pimephales promelas) 96 h LC50 0.032 - 0.226 mL/L (Oncorhynchus mykiss) 96 h LC50 100 - 136 mg/L (Oncorhynchus mykiss) 96 h LC50 41 mg/L (Brachydanio rerio) 96 h	EC50 11.3 - 18 mg/L (Daphnia magna) 48 h LC50 2 mg/L (Daphnia magna) 48 h

**Unknown Aquatic Toxicity** 0% of the mixture consists of components of unknown hazards to the aquatic environment.

**12.2. Persistence and degradability**

No information available

**12.3. Bioaccumulative potential**

**Bioaccumulation**

Chemical name	Octanol-Water Partition Coefficient
Formaldehyde	0.35

**Bioconcentration factor (BCF)** No information available.

**12.4. Mobility in soil**

No information available.

**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** Dispose of in accordance with local regulations.

**products**

**Contaminated packaging**

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 Not regulated
- 14.2 UN proper shipping name Not regulated
- 14.3 Transport hazard class(es) Not regulated
- 14.4 Packing group Not regulated
- 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 Not regulated
- 14.2 UN proper shipping name Not regulated
- 14.3 Transport hazard class(es) Not regulated
- 14.4 Packing group Not regulated
- 14.5 Environmental hazards None
- 14.6 Special precautions for user None

**IATA**

- 14.1 UN number Not regulated
- 14.2 UN proper shipping name Not regulated
- 14.3 Transport hazard class(es) Not regulated
- 14.4 Packing group Not regulated
- 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
Formaldehyde	5 tonne (Lower-tier) 50 tonne (Upper-tier)

**International inventories**

- TSCA 8(b) Complies
- DSL/NDL Complies
- EINECS/ELINCS Complies
- ENCS -
- 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**

H317 - May cause an allergic skin reaction  
H341 - Suspected of causing genetic defects  
H350 - May cause cancer

**Classification procedure:** Expert judgment and weight of evidence determination.  
**Issuing Date:** 2019-10-24  
**Revision Date:** 2024-05-01

**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.