

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: December 12, 2018

Revision: December 12, 2018

1 Identification

- **Product identifier**
- **Trade name:** Formaldehyde, 8% w/v
- **Product code:** FO4758SS
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
AquaPhoenix Scientific, Inc.
860 Gitts Run Road
Hanover, PA 17331
Phone: (717)632-1291
Toll-Free: (866)632-1291
info@aquaphoenixsci.com
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Skin Sens. 1 H317 May cause an allergic skin reaction.
Muta. 2 H341 Suspected of causing genetic defects.
Carc. 1B H350 May cause cancer. Route of exposure: Inhalation.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS07 GHS08

- **Signal word:** Danger
- **Hazard statements:**
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H350 May cause cancer. Route of exposure: Inhalation.
- **Precautionary statements:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing mist, vapors, or spray.
P272 Contaminated work clothing must 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.

(Cont'd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: December 12, 2018

Revision: December 12, 2018

Trade name: Formaldehyde, 8% w/v

(Cont'd. of page 1)

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.





P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

7732-18-5	Water	96.8%
50-00-0	Formaldehyde	3.2%
	 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331  Muta. 2, H341; Carc. 1B, H350  Skin Corr. 1B, H314  Skin Sens. 1, H317	

4 First-aid measures

· **Description of first aid measures**

· **General information:** No special measures required.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Immediately remove any clothing soiled by the product.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation or rash occurs: Get medical advice/attention.

· **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Nausea in case of ingestion.

Vomiting.

Gastric or intestinal disorders

Allergic reactions

· **Danger:**

Suspected of causing genetic defects.

May cause cancer. Route of exposure: Inhalation.

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

Medical supervision for at least 48 hours.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

Contains Formaldehyde. May produce an allergic reaction.

If medical advice is needed, have product container or label at hand.

(Cont'd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: December 12, 2018

Revision: December 12, 2018

Trade name: Formaldehyde, 8% w/v

(Cont'd. of page 2)

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No relevant information available.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
Protect from heat
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
- **Environmental precautions** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Avoid storage near extreme heat, ignition sources or open flame.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from oxidizing agents.
- **Further information about storage conditions:** Keep containers tightly sealed.
- **Specific end use(s)** No relevant information available.

(Cont'd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: December 12, 2018

Revision: December 12, 2018

Trade name: Formaldehyde, 8% w/v

(Cont'd. of page 3)

8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:

50-00-0 Formaldehyde

PEL (USA)	Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048(c)
REL (USA)	Long-term value: 0.016 ppm Ceiling limit value: 0.1* ppm *15-min; See Pocket Guide App. A
TLV (USA)	Short-term value: 0.37 mg/m ³ , 0.3 ppm Long-term value: 0.12 mg/m ³ , 0.1 ppm DSEN; RSEN
EL (Canada)	Long-term value: 0.3 ppm Ceiling limit value: 1 ppm ACGIH A1; IARC 1; S(D), S(R)
EV (Canada)	Short-term value: 1.0 ppm
Ceiling limit value	1.5 ppm
LMPE (Mexico)	Ceiling limit value: 0.3 ppm A2, SEN

· Exposure controls

· General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

· Engineering controls: Provide adequate ventilation.

· Breathing equipment: Not required under normal conditions of use.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· Material of gloves

Nitrile rubber, NBR
Neoprene gloves
Butyl rubber, BR
Natural rubber, NR

Sensibilization by the components in the glove materials is possible.

· Eye protection:

(Cont'd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: December 12, 2018

Revision: December 12, 2018

Trade name: Formaldehyde, 8% w/v

(Cont'd. of page 4)



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:** Protection may be required for spills.
- **Limitation and supervision of exposure into the environment**
No relevant information available.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

Form: Fluid
Color: Colorless

· Odor: Pungent
· Odor threshold: Not determined.

· pH-value: Not determined.
· Melting point/Melting range: -92 °C (-133.6 °F)
· Boiling point/Boiling range: -21 °C (-5.8 °F)

· Flash point: The product is not flammable.

· Flammability (solid, gaseous): Not applicable.

· Auto-ignition temperature: ~300 °C (~572 °F)

· Decomposition temperature: Not determined.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits

Lower: 7 Vol %
Upper: 73 Vol %

· Oxidizing properties: Not determined.

· Vapor pressure at 20 °C (68 °F): 1.7 hPa (1.3 mm Hg)

· Density at 20 °C (68 °F): 0.81 g/cm³ (6.76 lbs/gal)

· Relative density: Not determined.

· Vapor density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water: Fully miscible.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity

Dynamic at 20 °C (68 °F): 2 mPas
Kinematic: Not determined.

· Other information: No relevant information available.

(Cont'd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: December 12, 2018

Revision: December 12, 2018

Trade name: Formaldehyde, 8% w/v

(Cont'd. of page 5)

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Reacts with strong acids and alkali.
Reacts with strong oxidizing agents.
Reacts with inorganic acid chlorides.
- **Conditions to avoid**
Keep ignition sources away - Do not smoke.
Store away from oxidizing agents.
- **Incompatible materials** Oxidizers, strong bases, strong acids
- **Hazardous decomposition products**
Under fire conditions only:
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

• LD/LC50 values that are relevant for classification:

Formaldehyde, ACS

Oral	LD50	>6250 mg/kg (rat)
Dermal	LD50	9375 mg/kg
Inhalative	LC50/4h	93.8 mg/l

50-00-0 Formaldehyde

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Sensitization possible through skin contact.

• IARC (International Agency for Research on Cancer):

50-00-0	Formaldehyde	1
---------	--------------	---

• NTP (National Toxicology Program):

50-00-0	Formaldehyde	K
---------	--------------	---

• OSHA-Ca (Occupational Safety & Health Administration):

All ingredients are listed.

• Probable route(s) of exposure:

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** No relevant information available.

(Cont'd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: December 12, 2018

Revision: December 12, 2018

Trade name: Formaldehyde, 8% w/v

(Cont'd. of page 6)

- **Repeated dose toxicity:**
Danger of very serious irreversible effects.
May cause sensitisation by skin contact.
- **Germ cell mutagenicity:** Suspected of causing genetic defects.
- **Carcinogenicity:** May cause cancer. Route of exposure: Inhalation.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even extremely small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
- **DOT, ADR/RID/ADN, IMDG, IATA** Not regulated.
- **UN proper shipping name**

(Cont'd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: December 12, 2018

Revision: December 12, 2018

Trade name: Formaldehyde, 8% w/v

(Cont'd. of page 7)

- | | |
|---|-----------------|
| · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| · Transport hazard class(es) | |
| · DOT, ADR/RID/ADN, IMDG, IATA | |
| · Class | Not regulated. |
| · Packing group | |
| · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| · Environmental hazards | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· Section 302 (extremely hazardous substances):

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):

All ingredients are listed.

· Section 313 (Specific toxic chemical listings):

All ingredients are listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

50-00-0	Formaldehyde	15000
---------	--------------	-------

· Proposition 65 (California)

· Chemicals known to cause cancer:

50-00-0	Formaldehyde
---------	--------------

· Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· EPA (Environmental Protection Agency):

50-00-0	Formaldehyde	B1
---------	--------------	----

(Cont'd. on page 9)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: December 12, 2018

Revision: December 12, 2018

Trade name: Formaldehyde, 8% w/v

(Cont'd. of page 8)

• **IARC (International Agency for Research on Cancer):**

50-00-0 Formaldehyde

1

• **Canadian Domestic Substances List (DSL) (Substances not listed.):**

All ingredients are listed.

• **Information about limitation of use:**

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 2: Germ cell mutagenicity – Category 2

Carc. 1B: Carcinogenicity – Category 1B

• **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com