

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/17/2024

Reviewed on 06/17/2024

## 1 Identification

- **Product identifier**
- **Trade name:** Formaldehyde, 10% v/v Solution, Non-buffered
- **Article number:** F6055
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Aqua Solutions, Inc.  
6913 Highway 225  
DEER PARK, TX 77536  
USA  
800-256-2586
- **Information department:**  
Technical Coordinator  
Sherman Nelson [shermann@aquasolutions.org](mailto:shermann@aquasolutions.org)
- **Emergency telephone number:**  
Chemtrec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids 3      H226 Flammable liquid and vapor.



GHS08 Health hazard

Germ Cell Mutagenicity 2    H341 Suspected of causing genetic defects.  
Carcinogenicity 1A      H350 May cause cancer.



GHS07

Skin Irritation 2      H315 Causes skin irritation.  
Eye Irritation 2A      H319 Causes serious eye irritation.  
Sensitization - Skin 1    H317 May cause an allergic skin reaction.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**  
Formaldehyde

(Contd. on page 2)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/17/2024

Reviewed on 06/17/2024

**Trade name: Formaldehyde, 10% v/v  
Solution, Non-buffered**

(Contd. of page 1)

- **Hazard statements**

*Flammable liquid and vapor.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.  
Suspected of causing genetic defects.  
May cause cancer.*

- **Precautionary statements**

*Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
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.  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Wash thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
IF exposed or concerned: Get medical advice/attention.  
Specific treatment (see on this label).  
Take off contaminated clothing and wash it before reuse.  
If skin irritation or rash occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

US

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/17/2024

Reviewed on 06/17/2024

**Trade name: Formaldehyde, 10% v/v  
Solution, Non-buffered**

(Contd. of page 2)

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 50-00-0	Formaldehyde	8.257%
--------------	--------------	--------

- **Table of Nonhazardous Ingredients**

CAS: 7732-18-5	Water	91.743%
----------------	-------	---------

### 4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
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).  
Dispose contaminated material as waste according to section 13.  
Ensure adequate ventilation.
- **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.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/17/2024

Reviewed on 06/17/2024

**Trade name: Formaldehyde, 10% v/v  
Solution, Non-buffered**

(Contd. of page 3)

### · Protective Action Criteria for Chemicals

· PAC-1:		
CAS: 50-00-0	Formaldehyde	0.90 ppm
· PAC-2:		
CAS: 50-00-0	Formaldehyde	14 ppm
· PAC-3:		
CAS: 50-00-0	Formaldehyde	56 ppm

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**

· <b>Components with limit values that require monitoring at the workplace:</b>	
CAS: 50-00-0 Formaldehyde	
PEL	Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048(c)
REL	Long-term value: 0.016 ppm Ceiling limit value: 0.1* ppm *15-min; See Pocket Guide App. A
TLV	Short-term value: 0.3 ppm Long-term value: 0.1 ppm DSEN; RSEN, AI

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/17/2024

Reviewed on 06/17/2024

**Trade name: Formaldehyde, 10% v/v  
Solution, Non-buffered**

(Contd. of page 4)

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Clear
Odor:	Strong
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-3 °C (26.6 °F)

· **Flash point:** 56 °C (132.8 °F)

· **Flammability (solid, gaseous):** Flammable.

· **Auto igniting:** ~300 °C (~572 °F)

· **Decomposition temperature:** Not determined.

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/17/2024

Reviewed on 06/17/2024

**Trade name: Formaldehyde, 10% v/v  
Solution, Non-buffered**

(Contd. of page 5)

· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Not determined.
· <b>Explosion limits:</b>	
<b>Lower:</b>	7 Vol %
<b>Upper:</b>	73 Vol %
· <b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
· <b>Density at 20 °C (68 °F):</b>	0.981 g/cm <sup>3</sup> (8.18645 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	8.3 %
<b>Water:</b>	91.7 %
· <b>VOC content:</b>	8.26 %
	81.0 g/l / 0.68 lb/gal
· <b>Solids content:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>ATE (Acute Toxicity Estimate)</b>		
Oral	LD50	>2,422 mg/kg (rat)
Dermal	LD50	3,633 mg/kg
Inhalative	LC50/4h	36.3 mg/l

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/17/2024

Reviewed on 06/17/2024

**Trade name: Formaldehyde, 10% v/v  
Solution, Non-buffered**

(Contd. of page 6)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant
- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>	
CAS: 50-00-0 Formaldehyde	I

· <b>NTP (National Toxicology Program)</b>	
CAS: 50-00-0 Formaldehyde	K

· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>	
CAS: 50-00-0 Formaldehyde	

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further 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.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- |   |               |
|---|---------------|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADN, IMDG, IATA</b></li> </ul> | Not regulated |
|---|---------------|

(Contd. on page 8)

-US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/17/2024

Reviewed on 06/17/2024

**Trade name: Formaldehyde, 10% v/v  
Solution, Non-buffered**

(Contd. of page 7)

· **UN proper shipping name**  
· **DOT, ADN, IMDG, IATA** Not regulated

· **Transport hazard class(es)**  
· **DOT, ADN, IMDG, IATA**  
· **Class** Not regulated

· **Packing group**  
· **DOT, IMDG, IATA** Not regulated

· **Environmental hazards:**  
· **Marine pollutant:** No

· **Special precautions for user** Not applicable.

· **Transport in bulk according to Annex II of  
MARPOL73/78 and the IBC Code** Not applicable.

· **UN "Model Regulation":** Not regulated

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
· **Sara**

· **Section 355 (extremely hazardous substances):**

CAS: 50-00-0	Formaldehyde
--------------	--------------

· **Section 313 (Specific toxic chemical listings):**

CAS: 50-00-0	Formaldehyde
--------------	--------------

· **TSCA (Toxic Substances Control Act):**

Water	ACTIVE
Formaldehyde	ACTIVE

· **Hazardous Air Pollutants**

CAS: 50-00-0	Formaldehyde
--------------	--------------

· **Proposition 65**

· **Chemicals known to cause cancer:**

CAS: 50-00-0	Formaldehyde
--------------	--------------

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

CAS: 50-00-0	Formaldehyde	B1
--------------	--------------	----

· **TLV (Threshold Limit Value)**

CAS: 50-00-0	Formaldehyde	A2
--------------	--------------	----

(Contd. on page 9)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/17/2024

Reviewed on 06/17/2024

**Trade name: Formaldehyde, 10% v/v  
Solution, Non-buffered**

(Contd. of page 8)

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

CAS: 50-00-0 | Formaldehyde

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02    GHS07    GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*Formaldehyde*

· **Hazard statements**

*Flammable liquid and vapor.*

*Causes skin irritation.*

*Causes serious eye irritation.*

*May cause an allergic skin reaction.*

*Suspected of causing genetic defects.*

*May cause cancer.*

· **Precautionary statements**

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

*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.*

*Avoid breathing dust/fume/gas/mist/vapors/spray*

*Wash thoroughly after handling.*

*Contaminated work clothing must not be allowed out of the workplace.*

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

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

*IF exposed or concerned: Get medical advice/attention.*

*Specific treatment (see on this label).*

*Take off contaminated clothing and wash it before reuse.*

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

*If eye irritation persists: Get medical advice/attention.*

*Wash contaminated clothing before reuse.*

*In case of fire: Use CO2, powder or water spray to extinguish.*

*Store in a well-ventilated place. Keep cool.*

*Store locked up.*

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

· **National regulations:**

· **Additional classification according to Decree on Hazardous Materials:**

*Carcinogenic hazardous material group III (dangerous).*

(Contd. on page 10)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 06/17/2024

Reviewed on 06/17/2024

**Trade name: Formaldehyde, 10% v/v  
Solution, Non-buffered**

(Contd. of page 9)

- **Information about limitation of use:**  
*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.*
- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

### 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.*

- **Department issuing SDS:** *Environment protection department.*
- **Contact:**  
*Date of Preparation / Last Revision:*
- **Date of preparation / last revision**  
*Revision 0.1, 06/17/2024: Reviewed SDS for accuracy. MH/STN*  
*Creation date for SDS 11-03-2014. STN*  
*06/17/2024 / 1.1*
- **Abbreviations and acronyms:**  
*IMDG: International Maritime Code for Dangerous Goods*  
*DOT: US Department of Transportation*  
*IATA: International Air Transport Association*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*NFPA: National Fire Protection Association (USA)*  
*HMIS: Hazardous Materials Identification System (USA)*  
*VOC: Volatile Organic Compounds (USA, EU)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*NIOSH: National Institute for Occupational Safety*  
*OSHA: Occupational Safety & Health*  
*TLV: Threshold Limit Value*  
*PEL: Permissible Exposure Limit*  
*REL: Recommended Exposure Limit*  
*Flammable Liquids 3: Flammable liquids – Category 3*  
*Skin Irritation 2: Skin corrosion/irritation – Category 2*  
*Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A*  
*Sensitization - Skin 1: Skin sensitisation – Category 1*  
*Germ Cell Mutagenicity 2: Germ cell mutagenicity – Category 2*  
*Carcinogenicity 1A: Carcinogenicity – Category 1A*
- **\* Data compared to the previous version altered.**

US