

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/19/2019

Reviewed on 07/19/2019

## 1 Identification

- **Product identifier**
- **Trade name:** Dichlorofluorescein  
0.1% in 70% Methanol
- **Article number:** 2750
- **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 sherman@aquasolutions.org  
Technical Coordinator  
Sherman Nelson sherman@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

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

STOT SE 1 H370 Causes damage to organs.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **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:**  
Methanol (Methyl Alcohol)

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/19/2019

Reviewed on 07/19/2019

**Trade name: Dichlorofluorescein**  
**0.1% in 70% Methanol**

(Contd. of page 1)

· **Hazard statements**

Highly flammable liquid and vapor.

Harmful if swallowed.

Causes damage to organs.

· **Precautionary statements**

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 thoroughly after handling.

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

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

If swallowed: Call a poison center/doctor if you feel unwell.

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

IF exposed: Call a POISON CENTER or doctor/physician.

Specific treatment (see on this label).

Rinse mouth.

In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.

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)**



Health = 1

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 3

Fire = 2

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

## 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 67-56-1	Methanol (Methyl Alcohol)	64.895%
--------------	---------------------------	---------

· **Table of Nonhazardous Ingredients**

CAS: 76-54-0	2-(2,7-dichloro-6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoic acid	0.117%
--------------	--	--------

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/19/2019

Reviewed on 07/19/2019

**Trade name:** *Dichlorofluorescein*  
**0.1% in 70% Methanol**

(Contd. of page 2)

CAS: 7732-18-5 | Water

34.9882%

## 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
 Immediately remove any clothing soiled by the product.  
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Immediately call a 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**  
 During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
 Mount respiratory protective device.  
 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 item 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.
- **Protective Action Criteria for Chemicals**

### · PAC-1:

CAS: 67-56-1 | Methanol (Methyl Alcohol)

530 ppm

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/19/2019

Reviewed on 07/19/2019

**Trade name: Dichlorofluorescein**  
**0.1% in 70% Methanol**

(Contd. of page 3)

· **PAC-2:**

CAS: 67-56-1 Methanol (Methyl Alcohol)

2,100 ppm

· **PAC-3:**

CAS: 67-56-1 Methanol (Methyl Alcohol)

7200\* ppm

## 7 Handling and storage

· **Handling:**· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

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:** Store in a cool location.· **Information about storage in one common storage facility:** Not required.· **Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· **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 item 7.· **Control parameters**· **Components with limit values that require monitoring at the workplace:**

CAS: 67-56-1 Methanol (Methyl Alcohol)

PEL Long-term value: 260 mg/m<sup>3</sup>, 200 ppmREL Short-term value: 325 mg/m<sup>3</sup>, 250 ppmLong-term value: 260 mg/m<sup>3</sup>, 200 ppm

Skin

TLV Short-term value: 328 mg/m<sup>3</sup>, 250 ppmLong-term value: 262 mg/m<sup>3</sup>, 200 ppm

Skin; BEI

· **Ingredients with biological limit values:**

CAS: 67-56-1 Methanol (Methyl Alcohol)

BEI 15 mg/L

LD50 Intraperitoneal: urine

Time: end of shift

LD50: Methanol (background, nonspecific)

· **Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/19/2019

Reviewed on 07/19/2019

**Trade name:** *Dichlorofluorescein*  
**0.1% in 70% Methanol**

(Contd. of page 4)

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

*Keep away from foodstuffs, beverages and feed.*

*Immediately remove all soiled and contaminated clothing.*

*Wash hands before breaks and at the end of work.*

- **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:** *Yellow*

- **Odor:** *Methanol*

- **Odor threshold:** *Not determined.*

- **pH-value:** *Not determined.*

- **Change in condition**

**Melting point/Melting range:** *Undetermined.*

**Boiling point/Boiling range:** *64 °C (147.2 °F)*

- **Flash point:** *11 °C (51.8 °F)*

- **Flammability (solid, gaseous):** *Not applicable.*

(Contd. on page 6)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 07/19/2019

Reviewed on 07/19/2019

**Trade name:** *Dichlorofluorescein*  
**0.1% in 70% Methanol**

(Contd. of page 5)

· <b>Ignition temperature:</b>	455 °C (851 °F)
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· <b>Explosion limits:</b>	
<b>Lower:</b>	5.5 Vol %
<b>Upper:</b>	44 Vol %
· <b>Vapor pressure at 20 °C (68 °F):</b>	128 hPa (96 mm Hg)
· <b>Density at 20 °C (68 °F):</b>	0.85377 g/cm <sup>3</sup> (7.12471 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>	64.9 %
<b>Water:</b>	35.0 %
<b>VOC content:</b>	64.89 %
	554.1 g/l / 4.62 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.

US  
(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/19/2019

Reviewed on 07/19/2019

**Trade name:** Dichlorofluorescein  
0.1% in 70% Methanol

(Contd. of page 6)

## 11 Toxicological information

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

· **LD/LC50 values that are relevant for classification:**

**ATE (Acute Toxicity Estimate)**

Oral	LD50	1,829-4,267 mg/kg (rat)
Inhalative	LC50/4h	198 mg/l (rat)

**CAS: 67-56-1 Methanol (Methyl Alcohol)**

Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	300 mg/kg (ATE)
Inhalative	LC50/4h	3 mg/l (ATE)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful

- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 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 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

US

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/19/2019

Reviewed on 07/19/2019



**Trade name:** *Dichlorofluorescein*  
**0.1% in 70% Methanol**

(Contd. of page 7)

## 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

- |   |                                      |
|---|--------------------------------------|
| · <b>UN-Number</b>  |                                      |
| · <b>DOT, IMDG, IATA</b>  | UN1993                               |
| · <b>UN proper shipping name</b>  |                                      |
| · <b>DOT</b>  | Flammable liquids, n.o.s. (Methanol) |
| · <b>IMDG, IATA</b>   | FLAMMABLE LIQUID, N.O.S. (METHANOL)  |
| · <b>Transport hazard class(es)</b>   |                                      |
| · <b>DOT</b>  |                                      |
|   |                                      |
| · <b>Class</b>  | 3 Flammable liquids                  |
| · <b>Label</b>  | 3                                    |
| · <b>IMDG, IATA</b>   |                                      |
|  |                                      |
| · <b>Class</b>  | 3 Flammable liquids                  |
| · <b>Label</b>  | 3                                    |
| · <b>Packing group</b>  |                                      |
| · <b>DOT, IMDG, IATA</b>  | II                                   |
| · <b>Environmental hazards:</b>   |                                      |
| · <b>Marine pollutant:</b>  | No                                   |
| · <b>Special precautions for user</b>   | Warning: Flammable liquids           |
| · <b>Danger code (Kemler):</b>  | 336                                  |
| · <b>EMS Number:</b>  | F-E, S-E                             |
| · <b>Stowage Category</b>   | B                                    |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>    | Not applicable.                      |

(Contd. on page 9)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/19/2019

Reviewed on 07/19/2019

**Trade name: Dichlorofluorescein**  
**0.1% in 70% Methanol**

(Contd. of page 8)

· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 1 L

On cargo aircraft only: 60 L

· **IMDG**

· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 1993 FLAMMABLE LIQUID, N.O.S. (METHANOL), 3, II

## 15 Regulatory information

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

· **Sara**

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

None of the ingredients is listed.

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

CAS: 67-56-1 | Methanol (Methyl Alcohol)

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

Methanol (Methyl Alcohol)

ACTIVE

2-(2,7-dichloro-6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoic acid

ACTIVE

Water

ACTIVE

· **Hazardous Air Pollutants**

CAS: 67-56-1 | Methanol (Methyl Alcohol)

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **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:**

CAS: 67-56-1 | Methanol (Methyl Alcohol)

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

(Contd. on page 10)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/19/2019

Reviewed on 07/19/2019

**Trade name:** *Dichlorofluorescein*  
**0.1% in 70% Methanol**

(Contd. of page 9)

· **Hazard pictograms**



GHS02   GHS07   GHS08

· **Signal word** *Danger*

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

*Methanol (Methyl Alcohol)*

· **Hazard statements**

*Highly flammable liquid and vapor.*

*Harmful if swallowed.*

*Causes damage to organs.*

· **Precautionary statements**

*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 thoroughly after handling.*

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

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

*If swallowed: Call a poison center/doctor if you feel unwell.*

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

*IF exposed: Call a POISON CENTER or doctor/physician.*

*Specific treatment (see on this label).*

*Rinse mouth.*

*In case of fire: Use for extinction: CO2, powder or water spray.*

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

*Store locked up.*

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

· **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**

*Creation date for SDS 12-11-2014. STN*

*07/19/2019 / -*

· **Abbreviations and acronyms:**

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*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)*

(Contd. on page 11)

**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 07/19/2019

Reviewed on 07/19/2019

**Trade name: Dichlorofluorescein**  
**0.1% in 70% Methanol**

(Contd. of page 10)

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  
BEI: Biological Exposure Limit  
Flam. Liq. 2: Flammable liquids – Category 2  
Acute Tox. 4: Acute toxicity – Category 4  
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

US