

# Material Safety Data Sheet

Diff Quik Fixative Solution

MSDS no.

duhm0002

## 1 . Product and company identification

<b>Product name</b>	: Diff Quik Fixative Solution
<b>Code</b>	: 130833; 130846; 10484205; B4132-10A; 10445586; 10459382; 10445587; 10445590; 10459379
<b>Material uses</b>	: Diagnostic agents.
<b>Product type</b>	: Liquid.
<b>Manufacturer</b>	: Medion Grifols Diagnostics AG Bonnstrasse 9 CH-3186 Düringen Switzerland Tel.: (+41) 26 492 8702 Fax: (+41) 26 492 8656
<b>Supplier</b>	: Siemens Healthcare Diagnostics Inc. 1717 Deerfield Road Deerfield, IL 60015-0778 1-847-267-5300  Siemens Canada Limited 1200 Courtneypark Drive East Mississauga, Ontario, Canada L5T-1P2 Tel (905) 564-7333 Toll free (800) 264-0083 Fax (905) 795-4499
<b><u>In case of emergency</u></b>	: Transportation: (800) 424-9300 (CHEMTREC) Medical: (800) 228-5635 ext. 284 (Prosar)

## 2 . Hazards identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: Alcohol-like.
<b>OSHA/HCS status</b>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Emergency overview</b>	: WARNING! FLAMMABLE LIQUID AND VAPOR. CAN CAUSE TARGET ORGAN DAMAGE. Flammable liquid. Keep away from heat, sparks and flame. Avoid breathing vapor or mist. Avoid contact with skin and clothing. Can cause target organ damage. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Not available.
<b><u>Potential acute health effects</u></b>	
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Skin</b>	: May cause skin irritation.
<b>Eyes</b>	: May cause eye irritation.
<b><u>Potential chronic health effects</u></b>	
<b>Chronic effects</b>	: Can cause target organ damage.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.

## 2 . Hazards identification

- Fertility effects** : No known significant effects or critical hazards.
- Target organs** : Causes damage to the following organs: the nervous system, eye, lens or cornea.  
May cause damage to the following organs: gastrointestinal tract, upper respiratory tract, skin, eyes, central nervous system (CNS).

### Over-exposure signs/symptoms

- Inhalation** : No specific data.
- Ingestion** : No specific data.
- Skin** : No specific data.
- Eyes** : No specific data.

See toxicological information (section 11)

## 3 . Composition/information on ingredients

### United States

<u>Name</u>	<u>CAS number</u>	<u>%</u>
methanol	67-56-1	>50

### Canada

<u>Name</u>	<u>CAS number</u>	<u>%</u>
methanol	67-56-1	>50

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

## 5 . Fire-fighting measures

- Flammability of the product** : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

### Extinguishing media

In case of fire, use water spray (fog), foam or dry chemical.

- Not suitable** : Do not use water jet.

- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

## 5 . Fire-fighting measures

- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8 . Exposure controls/personal protection

### Product name

### Exposure limits

### United States

methanol

**ACGIH TLV (United States, 3/2012). Absorbed through skin.**

STEL: 328 mg/m<sup>3</sup> 15 minute(s).

STEL: 250 ppm 15 minute(s).

TWA: 262 mg/m<sup>3</sup> 8 hour(s).

TWA: 200 ppm 8 hour(s).

**NIOSH REL (United States, 6/2009). Absorbed through skin.**

STEL: 325 mg/m<sup>3</sup> 15 minute(s).

STEL: 250 ppm 15 minute(s).

TWA: 260 mg/m<sup>3</sup> 10 hour(s).

## 8 . Exposure controls/personal protection

TWA: 200 ppm 10 hour(s).  
**OSHA PEL (United States, 6/2010).**  
 TWA: 260 mg/m<sup>3</sup> 8 hour(s).  
 TWA: 200 ppm 8 hour(s).  
**OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.**  
 STEL: 325 mg/m<sup>3</sup> 15 minute(s).  
 STEL: 250 ppm 15 minute(s).  
 TWA: 260 mg/m<sup>3</sup> 8 hour(s).  
 TWA: 200 ppm 8 hour(s).

### Canada

methanol

**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.**  
 8 hrs OEL: 262 mg/m<sup>3</sup> 8 hour(s).  
 8 hrs OEL: 200 ppm 8 hour(s).  
 15 min OEL: 250 ppm 15 minute(s).  
 15 min OEL: 328 mg/m<sup>3</sup> 15 minute(s).  
**CA British Columbia Provincial (Canada, 9/2011). Absorbed through skin.**  
 TWA: 200 ppm 8 hour(s).  
 STEL: 250 ppm 15 minute(s).  
**CA Ontario Provincial (Canada, 7/2010). Absorbed through skin.**  
 TWA: 200 ppm 8 hour(s).  
 TWA: 262 mg/m<sup>3</sup> 8 hour(s).  
 STEL: 250 ppm 15 minute(s).  
 STEL: 328 mg/m<sup>3</sup> 15 minute(s).  
**CA Quebec Provincial (Canada, 9/2011). Absorbed through skin.**  
 TWAEV: 200 ppm 8 hour(s).  
 TWAEV: 262 mg/m<sup>3</sup> 8 hour(s).  
 STEV: 250 ppm 15 minute(s).  
 STEV: 328 mg/m<sup>3</sup> 15 minute(s).

### Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protection

- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

## 8 . Exposure controls/personal protection

- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

- Physical state** : Liquid.
- Flash point** : Closed cup: 12°C (53.6°F)
- Auto-ignition temperature** : 464°C (867.2°F)
- Flammable limits** : Lower: 5.5%  
Upper: >13%
- Color** : Colorless.
- Odor** : Alcohol-like.
- Boiling/condensation point** : 64.5°C (148.1°F)
- Melting/freezing point** : -97.8°C (-144°F)
- Relative density** : 0.792
- Vapor pressure** : 12.9 kPa (97 mm Hg)
- Vapor density** : 1.11 [Air = 1]
- Evaporation rate** : 2.1 (butyl acetate = 1)
- VOC** : 50.5 % (w/w)
- Solubility** : Soluble in the following materials: cold water.

## 10 . Stability and reactivity

- Stability** : The product is stable.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
- Materials to avoid** : Reactive or incompatible with the following materials:  
oxidizing materials  
Not available.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

## 11 . Toxicological information

### United States

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
methanol	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Intraperitoneal	Rat	7529 mg/kg	-
	LD50 Intravenous	Rat	2131 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	TDLo Intraperitoneal	Rat	3490 mg/kg	-
	TDLo Intraperitoneal	Rat	3000 mg/kg	-

## 11 . Toxicological information

Diff Quik Fixative Solution	TDLo Oral	Rat	8 g/kg	-
	TDLo Oral	Rat	3 g/kg	-
	TDLo Oral	Rat	3500 mg/kg	-
	TDLo	Rat	6825 mg/kg	-
	Subcutaneous			
	LC50 Inhalation	Rat	145000 ppm	1 hours
	Gas.			
	LC50 Inhalation	Rat	64000 ppm	8 hours
	Gas.			
	LC50 Inhalation	Rat	64000 ppm	4 hours
	Gas.			
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50	Rat	7529 mg/kg	-
	Intraperitoneal			
	LD50 Intravenous	Rat	2131 mg/kg	-
	LD50 Oral	Rabbit	14200 mg/kg	-
	LD50 Oral	Mouse	7300 mg/kg	-
	LD50 Oral	Rat	5628 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LDLo Dermal	Monkey	393 mg/kg	-
	LDLo Oral	Male	6422 mg/kg	-
	LDLo Oral	Human/30 min	428 mg/kg	-
	LDLo Oral	Human/30 min	143 mg/kg	-
	TDLo	Rat	3490 mg/kg	-
	Intraperitoneal			
	TDLo	Rat	3000 mg/kg	-
	Intraperitoneal			
	TDLo Oral	Rat	8 g/kg	-
	TDLo Oral	Rat	3 g/kg	-
	TDLo Oral	Rat	3500 mg/kg	-
	LC50 Inhalation	Rat	64000 ppm	4 hours
	Vapor			
	LC50 Inhalation	Rat	64000 ppm	4 hours
	Gas.			

### Chronic toxicity

Not available.

### Carcinogenicity

Not available.

### Classification

#### Product/ingredient name

methanol

ACGIH

-

IARC

-

EPA

-

NIOSH

None.

NTP

-

OSHA

None.

### Mutagenicity

Not available.

### Teratogenicity

Not available.

### Reproductive toxicity

Not available.

### Canada

#### Acute toxicity

#### Product/ingredient name

#### Result

#### Species

#### Dose

#### Exposure

## 11 . Toxicological information

methanol	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50	Rat	7529 mg/kg	-
	Intraperitoneal			
	LD50 Intravenous	Rat	2131 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	TDLo	Rat	3490 mg/kg	-
	Intraperitoneal			
	TDLo	Rat	3000 mg/kg	-
	Intraperitoneal			
	TDLo Oral	Rat	8 g/kg	-
	TDLo Oral	Rat	3 g/kg	-
	TDLo Oral	Rat	3500 mg/kg	-
	TDLo	Rat	6825 mg/kg	-
	Subcutaneous			
	LC50 Inhalation	Rat	145000 ppm	1 hours
	Gas.			
	LC50 Inhalation	Rat	64000 ppm	8 hours
	Gas.			
	LC50 Inhalation	Rat	64000 ppm	4 hours
	Gas.			
Diff Quik Fixative Solution	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50	Rat	7529 mg/kg	-
	Intraperitoneal			
	LD50 Intravenous	Rat	2131 mg/kg	-
	LD50 Oral	Rabbit	14200 mg/kg	-
	LD50 Oral	Mouse	7300 mg/kg	-
	LD50 Oral	Rat	5628 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LDLo Dermal	Monkey	393 mg/kg	-
	LDLo Oral	Male	6422 mg/kg	-
	LDLo Oral	Human/30 min	428 mg/kg	-
	LDLo Oral	Human/30 min	143 mg/kg	-
	TDLo	Rat	3490 mg/kg	-
	Intraperitoneal			
	TDLo	Rat	3000 mg/kg	-
	Intraperitoneal			
	TDLo Oral	Rat	8 g/kg	-
	TDLo Oral	Rat	3 g/kg	-
	TDLo Oral	Rat	3500 mg/kg	-
	LC50 Inhalation	Rat	64000 ppm	4 hours
	Vapor			
	LC50 Inhalation	Rat	64000 ppm	4 hours
	Gas.			

### Chronic toxicity

Not available.

### Carcinogenicity

Not available.

### Classification

#### Product/ingredient name

methanol

ACGIH

-

IARC

-

EPA

-

NIOSH

None.

NTP

-

OSHA

None.

### Mutagenicity

Not available.

### Teratogenicity

Not available.

## 11 . Toxicological information

### Reproductive toxicity

Not available.

## 12 . Ecological information

**Environmental effects** : Readily biodegradable This product shows a low bioaccumulation potential.

### United States

### Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
methanol	-	Acute EC50 22200 to 23400 mg/L Fresh water	Daphnia - Water flea - Daphnia obtusa - Neonate - <24 hours	48 hours
	-	Acute EC50 16.912 mg/L Marine water	Algae - Green algae - Ulva pertusa	96 hours
	-	Acute EC50 24500000 to 29350000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - Larvae - <24 hours	48 hours
	-	Acute EC50 13000000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours
	-	Acute EC50 12700000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
	-	Acute LC50 15.32 g/L Fresh water	Fish - Mozambique tilapia - Oreochromis mossambicus - Adult - 78.5 mm - 7.8 g	96 hours
	-	Acute LC50 3289 to 4395 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	48 hours
	-	Acute LC50 290 mg/L Fresh water	Fish - Zebra danio - Danio rerio - Egg - esa:856s:7pt	96 hours
	-	Acute LC50 15400000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling,	96 hours



## 12 . Ecological information

			Weanling) - 3.07 g	
-	Acute LC50 2500000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours	
-	Chronic NOEC 9.96 mg/L Marine water	Algae - Green algae - Ulva pertusa	96 hours	
-	Chronic NOEC 1400 ppm Fresh water	Algae - Diatom - Skeletonema costatum	96 hours	
-	Chronic NOEC 410 ppm Fresh water	Algae - Dinoflagellate - Prorocentrum minimum	96 hours	
-	Chronic NOEC 71 ppm Fresh water	Algae - Algae - Heterosigma akashiwo	96 hours	
-	Chronic NOEC 24 ppm Fresh water	Algae - erm:64h0:7pt - Eutreptialla sp.	96 hours	
Diff Quik Fixative Solution	Acute EC50 22200 mg/L Fresh water	Daphnia - Water flea - Daphnia obtusa - Neonate - <24 hours	48 hours	
-	Acute EC50 16000 mg/L	Fish	48 hours	
-	Acute EC50 13200 mg/L	Fish	48 hours	
-	Acute EC50 >10000 mg/L	Daphnia	48 hours	
-	Acute EC50 24500000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - LARVAE - <24 hours	48 hours	
-	Acute EC50 13000000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours	
-	Acute EC50 12700000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours	
-	Acute EC50 >10000000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - 6 to 24 hours	48 hours	
-	Acute LC50	Fish - Bluegill -	96 hours	

## 12 . Ecological information

-	15500 mg/L Fresh water	Lepomis macrochirus	
-	Acute LC50 15400 mg/L	Fish	96 hours
-	Acute LC50 3289 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	48 hours
-	Acute LC50 >100 mg/L	Fish	96 hours
-	Acute LC50 >100 mg/L	Daphnia	96 hours
-	Acute LC50 19 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.8 g	96 hours
-	Acute LC50 >28000000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 cm	96 hours
-	Acute LC50 28000000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 to 10 cm	96 hours
-	Acute LC50 20100000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours
-	Acute LC50 15400000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
-	Acute LC50 10000000 to 33000000 ug/L Marine water	Fish - Hooknose - Agonus cataphractus - Adult	96 hours
-	Acute LC50 2500000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
-	Acute LC50 >100000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours

## 12 . Ecological information

### Biodegradability

Not available.

### Canada

#### Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
methanol	-	Acute EC50 22200 to 23400 mg/L Fresh water	Daphnia - Water flea - Daphnia obtusa - Neonate - <24 hours	48 hours
	-	Acute EC50 16.912 mg/L Marine water	Algae - Green algae - Ulva pertusa	96 hours
	-	Acute EC50 24500000 to 29350000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - Larvae - <24 hours	48 hours
	-	Acute EC50 13000000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours
	-	Acute EC50 12700000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
	-	Acute LC50 15.32 g/L Fresh water	Fish - Mozambique tilapia - Oreochromis mossambicus - Adult - 78.5 mm - 7.8 g	96 hours
	-	Acute LC50 3289 to 4395 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	48 hours
	-	Acute LC50 290 mg/L Fresh water	Fish - Zebra danio - Danio rerio - Egg - esa:856s:7pt	96 hours
	-	Acute LC50 15400000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
	-	Acute LC50	Crustaceans -	48 hours

## 12 . Ecological information

		2500000 ug/L Marine water	Common shrimp, sand shrimp - Crangon crangon - Adult	
	-	Chronic NOEC 9.96 mg/L Marine water	Algae - Green algae - Ulva pertusa	96 hours
	-	Chronic NOEC 1400 ppm Fresh water	Algae - Diatom - Skeletonema costatum	96 hours
	-	Chronic NOEC 410 ppm Fresh water	Algae - Dinoflagellate - Prorocentrum minimum	96 hours
	-	Chronic NOEC 71 ppm Fresh water	Algae - Algae - Heterosigma akashiwo	96 hours
	-	Chronic NOEC 24 ppm Fresh water	Algae - erm:64h0:7pt - Eutreptialla sp.	96 hours
Diff Quik Fixative Solution	-	Acute EC50 22200 mg/L Fresh water	Daphnia - Water flea - Daphnia obtusa - Neonate - <24 hours	48 hours
	-	Acute EC50 16000 mg/L	Fish	48 hours
	-	Acute EC50 13200 mg/L	Fish	48 hours
	-	Acute EC50 >10000 mg/L	Daphnia	48 hours
	-	Acute EC50 24500000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - LARVAE - <24 hours	48 hours
	-	Acute EC50 13000000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours
	-	Acute EC50 12700000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
	-	Acute EC50 >10000000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - 6 to 24 hours	48 hours
	-	Acute LC50 15500 mg/L Fresh water	Fish - Bluegill - Lepomis macrochirus	96 hours
	-	Acute LC50	Fish	96 hours

## 12 . Ecological information

-	15400 mg/L Acute LC50 3289 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	48 hours
-	Acute LC50 >100 mg/L	Fish	96 hours
-	Acute LC50 >100 mg/L	Daphnia	96 hours
-	Acute LC50 19 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.8 g	96 hours
-	Acute LC50 >28000000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 cm	96 hours
-	Acute LC50 28000000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 to 10 cm	96 hours
-	Acute LC50 20100000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours
-	Acute LC50 15400000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
-	Acute LC50 10000000 to 33000000 ug/L Marine water	Fish - Hooknose - Agonus cataphractus - Adult	96 hours
-	Acute LC50 2500000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
-	Acute LC50 >100000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours

### Biodegradability

## 12 . Ecological information

Not available.

## 13 . Disposal considerations

### Waste disposal

: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Not available.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport information

### International transport regulations

#### DOT Classification

**UN number** UN1230

**Proper shipping name** Methanol

**Classes** 3 (6.1)

**PG\*** II

#### Label



#### Additional information

**Reportable quantity**  
5000 lbs. (2270 kg)

**Limited quantity**  
Yes.

#### Packaging instruction

##### Passenger aircraft

Quantity limitation: 1 to 1 L

##### Cargo aircraft

Quantity limitation: 60 to 60 L

#### Special provisions

IB2, T7, TP2

#### TDG Classification

**UN number** UN1230

**Proper shipping name** METHANOL

**Classes** 3 (6.1)

## 14 . Transport information

PG\*

II

Label

Additional  
informationSpecial provisions  
43MexicoClassification

UN number

UN1230

Proper shipping  
name

Methanol

Classes

3 (6.1)

PG\*

II

Label

Additional  
information

-

IMDG Class

UN number

UN1230

Proper shipping  
name

METHANOL

Classes

3 (6.1)

PG\*

II

Label

Additional  
informationEmergency schedules (EmS)  
3-06IATA-DGR Class

UN number

UN1230

Proper shipping  
name

METHANOL

Classes

3 (6.1)

PG\*

II

Label

Additional  
information

**Passenger and Cargo Aircraft**Quantity limitation: 1 L  
**Cargo Aircraft Only**Quantity limitation: 60 L  
**Limited Quantities - Passenger Aircraft**Quantity limitation: 1 L

PG\* : Packing group

## 14 . Transport information

## 15 . Regulatory information

### United States

#### HCS Classification

: Flammable liquid  
Target organ effects

#### U.S. Federal regulations

: **United States inventory (TSCA 8b)**: All components are listed or exempted.  
**SARA 302/304/311/312 extremely hazardous substances**: No products were found.  
**SARA 302/304 emergency planning and notification**: No products were found.  
**SARA 302/304/311/312 hazardous chemicals**: Diff Quik Fixative Solution  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: Diff Quik Fixative Solution: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard  
**Clean Water Act (CWA) 307**: No products were found.  
**Clean Water Act (CWA) 311**: No products were found.  
**Clean Air Act (CAA) 112 accidental release prevention**: Diff Quik Fixative Solution  
**Clean Air Act (CAA) 112 regulated flammable substances**: No products were found.  
**Clean Air Act (CAA) 112 regulated toxic substances**: No products were found.

### SARA 313

#### Form R - Reporting requirements

<u>Product name</u>	<u>CAS number</u>	<u>Concentration</u>
: Diff Quik Fixative Solution		100

#### Supplier notification

: Diff Quik Fixative Solution	100
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SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

#### State regulations

: **Connecticut Carcinogen Reporting**: None of the components are listed.  
**Connecticut Hazardous Material Survey**: None of the components are listed.  
**Florida substances**: The following components are listed: Diff Quik Fixative Solution  
**Illinois Chemical Safety Act**: None of the components are listed.  
**Illinois Toxic Substances Disclosure to Employee Act**: None of the components are listed.  
**Louisiana Reporting**: None of the components are listed.  
**Louisiana Spill**: None of the components are listed.



## 15 . Regulatory information

**Massachusetts Spill:** None of the components are listed.

**Massachusetts Substances:** The following components are listed: Diff Quik Fixative Solution

**Michigan Critical Material:** None of the components are listed.

**Minnesota Hazardous Substances:** The following components are listed: Diff Quik Fixative Solution

**New Jersey Hazardous Substances:** The following components are listed: Diff Quik Fixative Solution

**New Jersey Spill:** The following components are listed: Diff Quik Fixative Solution

**New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.

**New York Acutely Hazardous Substances:** The following components are listed: Methanol

**New York Toxic Chemical Release Reporting:** None of the components are listed.

**Pennsylvania RTK Hazardous Substances:** The following components are listed: Diff Quik Fixative Solution

**Rhode Island Hazardous Substances:** The following components are listed: Diff Quik Fixative Solution

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive</u>	<u>No significant risk level</u>	<u>Maximum acceptable dosage level</u>
methanol	No.	Yes.	No.	No.

**United States inventory (TSCA 8b)** : All components are listed or exempted.

Use only for medical diagnostic (R&D) purposes

### Canada

**WHMIS (Canada)** : Not a WHMIS controlled material.

**Canadian lists** : **CEPA Toxic substances:** None of the components are listed.

**Canadian ARET:** None of the components are listed.

**Canadian NPRI:** The following components are listed: Diff Quik Fixative Solution

**Alberta Designated Substances:** None of the components are listed.

**Ontario Designated Substances:** None of the components are listed.

**Quebec Designated Substances:** None of the components are listed.

**Canada inventory** : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## 16 . Other information

### EU regulations

**Hazard symbol or symbols** :



Highly flammable, Toxic

**Risk phrases**

: R11- Highly flammable.  
R23/24/25- Toxic by inhalation, in contact with skin and if swallowed.  
R39/23/24/25- Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

## 16 . Other information

**Safety phrases** : S7- Keep container tightly closed.  
S16- Keep away from sources of ignition - No smoking.  
S36/37- Wear suitable protective clothing and gloves.  
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### International regulations

**International lists** : **Australia inventory (AICS)**: All components are listed or exempted.  
**China inventory (IECSC)**: All components are listed or exempted.  
**Japan inventory**: All components are listed or exempted.  
**Korea inventory**: All components are listed or exempted.  
**New Zealand Inventory of Chemicals (NZIoC)**: All components are listed or exempted.  
**Philippines inventory (PICCS)**: All components are listed or exempted.

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**Version** : 7.01

### Notice to reader

Information contained herein is based solely on data provided by the manufacturer. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.