

# SAFETY DATA SHEET



PicoMaxx High Fidelity PCR System, Part Number 600424

## Section 1. Identification

### 1.1 Product identifier

**Product name** : PicoMaxx High Fidelity PCR System, Part Number 600424  
**Part No. (Chemical Kit)** : 600424  
**Part No.** : PicoMaxx High Fidelity PCR System 600424-51  
 10X PicoMaxx Reaction Buffer 600420-52  
**Validation date** : 6/30/2017

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

**Material uses** : Analytical reagent.  
 PicoMaxx High Fidelity PCR System 0.4 ml (1000 U 2.5 U/μl)  
 10X PicoMaxx Reaction Buffer 1 ml

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

**Supplier/Manufacturer** : Agilent Technologies, Inc.  
 5301 Stevens Creek Blvd  
 Santa Clara, CA 95051, USA  
 800-227-9770

### 1.4 Emergency telephone number

**In case of emergency** : CHEMTREC®: 1-800-424-9300

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

**OSHA/HCS status** : PicoMaxx High Fidelity PCR System  
 10X PicoMaxx Reaction Buffer  
 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

### Classification of the substance or mixture

**PicoMaxx High Fidelity PCR System**  
 H320 EYE IRRITATION - Category 2B  
**Ingredients of unknown toxicity** : PicoMaxx High Fidelity PCR System  
 10X PicoMaxx Reaction Buffer  
 Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 30 - 60%  
 Percentage of the mixture consisting of ingredient (s) of unknown dermal toxicity: 1 - 10%  
 Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 10 - 30%  
 Percentage of the mixture consisting of ingredient (s) of unknown oral toxicity: 1 - 10%

### 2.2 GHS label elements

**Signal word** : PicoMaxx High Fidelity PCR System  
 10X PicoMaxx Reaction Buffer  
 Warning  
 No signal word.

## Section 2. Hazards identification

<b>Hazard statements</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	H320 - Causes eye irritation. No known significant effects or critical hazards.
<b>Precautionary statements</b>		
<b>Prevention</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	P264 - Wash hands thoroughly after handling. Not applicable.
<b>Response</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention. Not applicable.
<b>Storage</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	Not applicable. Not applicable.
<b>Disposal</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	Not applicable. Not applicable.
<b>Supplemental label elements</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	None known. None known.
<b>2.3 Other hazards</b>		
<b>Hazards not otherwise classified</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	None known. None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	Mixture Mixture
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Ingredient name	%	CAS number
PicoMaxx High Fidelity PCR System Glycerol	≥50 - ≤75	56-81-5
10X PicoMaxx Reaction Buffer Trometamol	≤7.2	77-86-1
Potassium chloride	≤2.7	7447-40-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**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.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

## Section 4. First aid measures

<b>Eye contact</b>	: PicoMaxx High Fidelity PCR System	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	10X PicoMaxx Reaction Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Inhalation</b>	: PicoMaxx High Fidelity PCR System	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	10X PicoMaxx Reaction Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
<b>Skin contact</b>	: PicoMaxx High Fidelity PCR System	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	10X PicoMaxx Reaction Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	: PicoMaxx High Fidelity PCR System	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	10X PicoMaxx Reaction Buffer	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get

## Section 4. First aid measures

medical attention if symptoms occur.

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	Causes eye irritation.
<b>Inhalation</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.
<b>Skin contact</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.
<b>Ingestion</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	Adverse symptoms may include the following:  irritation watering redness No specific data.
<b>Inhalation</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No specific data.
<b>Skin contact</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No specific data.
<b>Ingestion</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No specific data.

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
<b>Specific treatments</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No specific treatment.
<b>Protection of first-aiders</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	None known. None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Specific hazards arising from the chemical</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	: PicoMaxx High Fidelity PCR System  10X PicoMaxx Reaction Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	: PicoMaxx High Fidelity PCR System  10X PicoMaxx Reaction Buffer	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. 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.
<b>Special protective equipment for fire-fighters</b>	: PicoMaxx High Fidelity PCR System  10X PicoMaxx Reaction Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: PicoMaxx High Fidelity PCR System	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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate
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## Section 6. Accidental release measures

	10X PicoMaxx Reaction Buffer	personal protective equipment. 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. Put on appropriate personal protective equipment.
<b>For emergency responders :</b>	PicoMaxx High Fidelity PCR System	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	10X PicoMaxx Reaction Buffer	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
<b>6.2 Environmental precautions</b>	PicoMaxx High Fidelity PCR System	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).
	10X PicoMaxx Reaction Buffer	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).
<b>6.3 Methods and materials for containment and cleaning up</b>		
<b>Methods for cleaning up :</b>	PicoMaxx High Fidelity PCR System	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. Dispose of via a licensed waste disposal contractor.
	10X PicoMaxx Reaction Buffer	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. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures :</b>	PicoMaxx High Fidelity PCR System	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	10X PicoMaxx Reaction Buffer	Put on appropriate personal protective equipment (see Section 8).

## Section 7. Handling and storage

<b>Advice on general occupational hygiene</b>	: PicoMaxx High Fidelity PCR System	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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	10X PicoMaxx Reaction Buffer	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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	: PicoMaxx High Fidelity PCR System	Store in accordance with local regulations. 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. 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. See Section 10 for incompatible materials before handling or use.
	10X PicoMaxx Reaction Buffer	Store in accordance with local regulations. 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. 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. See Section 10 for incompatible materials before handling or use.
<b>7.3 Specific end use(s)</b>		
<b>Recommendations</b>	: PicoMaxx High Fidelity PCR System	Industrial applications, Professional applications.
	10X PicoMaxx Reaction Buffer	Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: PicoMaxx High Fidelity PCR System	Not applicable.
	10X PicoMaxx Reaction Buffer	Not applicable.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits



## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
<b>PicoMaxx High Fidelity PCR System</b> Glycerol	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>OSHA PEL (United States, 6/2016).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust
<b>10X PicoMaxx Reaction Buffer</b> Trometamol Potassium chloride	None. None.

### 8.2 Exposure controls

#### Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### 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.

### Individual protection measures

#### 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.

#### Eye/face protection

: 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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

#### Skin protection

##### Hand protection

: 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

##### Body protection

: 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.

##### Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.



## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: PicoMaxx High Fidelity PCR System	Liquid.
	10X PicoMaxx Reaction Buffer	Liquid.
<b>Color</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Odor</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Odor threshold</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>pH</b>	: PicoMaxx High Fidelity PCR System	8
	10X PicoMaxx Reaction Buffer	8.83
<b>Melting point</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Boiling point</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Flash point</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Evaporation rate</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Flammability (solid, gas)</b>	: PicoMaxx High Fidelity PCR System	Not applicable.
	10X PicoMaxx Reaction Buffer	Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Vapor pressure</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Vapor density</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Relative density</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Solubility</b>	: PicoMaxx High Fidelity PCR System	Easily soluble in the following materials: cold water and hot water.
	10X PicoMaxx Reaction Buffer	Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.

## Section 9. Physical and chemical properties

<b>Auto-ignition temperature</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Decomposition temperature</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.
<b>Viscosity</b>	: PicoMaxx High Fidelity PCR System	Not available.
	10X PicoMaxx Reaction Buffer	Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: PicoMaxx High Fidelity PCR System	No specific test data related to reactivity available for this product or its ingredients.
	10X PicoMaxx Reaction Buffer	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: PicoMaxx High Fidelity PCR System	The product is stable.
	10X PicoMaxx Reaction Buffer	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: PicoMaxx High Fidelity PCR System	Under normal conditions of storage and use, hazardous reactions will not occur.
	10X PicoMaxx Reaction Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: PicoMaxx High Fidelity PCR System	No specific data.
	10X PicoMaxx Reaction Buffer	No specific data.
<b>10.5 Incompatible materials</b>	: PicoMaxx High Fidelity PCR System	May react or be incompatible with oxidizing materials.
	10X PicoMaxx Reaction Buffer	May react or be incompatible with oxidizing materials.
<b>10.6 Hazardous decomposition products</b>	: PicoMaxx High Fidelity PCR System	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10X PicoMaxx Reaction Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
PicoMaxx High Fidelity PCR System Glycerol	LD50 Oral	Rat	12600 mg/kg	-
10X PicoMaxx Reaction Buffer Trometamol	LD50 Dermal LD50 Oral	Rat Rat	>5000 mg/kg 5000 mg/kg	- -

## Section 11. Toxicological information

Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-
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### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
PicoMaxx High Fidelity PCR System Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		24 hours 500 milligrams
10X PicoMaxx Reaction Buffer Trometamol	Skin - Moderate irritant	Rabbit	-	25 Percent 500 milligrams	-
	Skin - Severe irritant	Rabbit	-		24 hours 500 milligrams
Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
10X PicoMaxx Reaction Buffer Trometamol	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

: PicoMaxx High Fidelity PCR System  
10X PicoMaxx Reaction Buffer

Routes of entry anticipated: Oral, Dermal, Inhalation.  
Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

#### Eye contact

: PicoMaxx High Fidelity PCR System  
10X PicoMaxx Reaction Buffer

Causes eye irritation.  
No known significant effects or critical hazards.

## Section 11. Toxicological information

<b>Inhalation</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.
<b>Skin contact</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.
<b>Ingestion</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: PicoMaxx High Fidelity PCR System  10X PicoMaxx Reaction Buffer	Adverse symptoms may include the following:  irritation watering redness No specific data.
<b>Inhalation</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No specific data.
<b>Skin contact</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No specific data.
<b>Ingestion</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

<b>General</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.
<b>Mutagenicity</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.
<b>Teratogenicity</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.
<b>Developmental effects</b>	: PicoMaxx High Fidelity PCR System 10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.

## Section 11. Toxicological information

<b>Fertility effects</b>	: PicoMaxx High Fidelity PCR System	No known significant effects or critical hazards.
	10X PicoMaxx Reaction Buffer	No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
10X PicoMaxx Reaction Buffer Oral	49227.5 mg/kg

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
PicoMaxx High Fidelity PCR System Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
10X PicoMaxx Reaction Buffer Trometamol	Acute EC50 >980 mg/l Fresh water	Daphnia	48 hours
	Acute NOEC 520 mg/l Fresh water	Daphnia	48 hours
Potassium chloride	Acute EC50 1337000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 9.24 g/L Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 141460 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 12.92 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
	Acute LC50 880000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

### 12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
10X PicoMaxx Reaction Buffer Potassium chloride	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
PicoMaxx High Fidelity PCR System Glycerol	-1.76	-	low
10X PicoMaxx Reaction Buffer Trometamol	-1.56	-	low
Potassium chloride	-0.46	-	low

### 12.4 Mobility in soil

## Section 12. Ecological information

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**12.5 Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.**

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

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

## Section 14. Transport information

**DOT / TDG / Mexico / IMDG / IATA** : Not regulated.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

## Section 15. Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**U.S. Federal regulations** : **TSCA 8(a) PAIR:** Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**Clean Water Act (CWA) 311:** Edetic acid

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

## Section 15. Regulatory information

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** :  PicoMaxx High Fidelity PCR System Immediate (acute) health hazard  
 10X PicoMaxx Reaction Buffer Not applicable.

#### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
<input checked="" type="checkbox"/> PicoMaxx High Fidelity PCR System Glycerol	≥50 - ≤75	No.	No.	No.	Yes.	No.
<b>10X PicoMaxx Reaction Buffer</b> Trometamol	≤7.2	Yes.	No.	No.	Yes.	No.
Potassium chloride	≤2.7	No.	No.	No.	Yes.	No.

### State regulations

**Massachusetts** : The following components are listed: GLYCERINE MIST

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL

**Pennsylvania** : The following components are listed: 1,2,3-PROPANETRIOL

### California Prop. 65

Not available.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.



## Section 15. Regulatory information

### Inventory list

<b>Australia</b>	: Not determined.
<b>Canada</b>	: Not determined.
<b>China</b>	: Not determined.
<b>Europe</b>	: <input checked="" type="checkbox"/> All components are listed or exempted.
<b>Japan</b>	: <input checked="" type="checkbox"/> <b>Japan inventory (ENCS)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: <input checked="" type="checkbox"/> All components are listed or exempted.
<b>Thailand</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Turkey</b>	: <input checked="" type="checkbox"/> Not determined.
<b>United States</b>	: <input checked="" type="checkbox"/> All components are listed or exempted.
<b>Viet Nam</b>	: <input checked="" type="checkbox"/> Not determined.

## Section 16. Other information

### History

<b>Date of issue</b>	: 06/30/2017
<b>Date of previous issue</b>	: 12/24/2014.
<b>Version</b>	: 4

Indicates information that has changed from previously issued version.

### Notice to reader

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