

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018

Page 1 of 10

## Gardotest solution 247

### SECTION 1: Identification

#### Product identifier

**Product name:** Gardotest solution 247

**Product code:** R7234

#### Recommended use of the product and restriction on use

**Relevant identified uses:** Laboratory chemical

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

#### Manufacturer or supplier details

**Manufacturer:**

**United States**

AquaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331

1-717-632-1291

#### Emergency telephone number:

**United States**

**ChemTel Inc**

+1(800)255-3924

+1(813)248-0585

### SECTION 2: Hazard(s) identification

#### GHS classification:

Acute toxicity (oral), category 4

Acute toxicity (inhalation), category 4

Acute toxicity (dermal), category 4

Skin corrosion, category 1A

Serious eye damage, category 1

Specific target organ toxicity - single exposure, category 3, respiratory irritation

#### Label elements

##### Hazard pictograms:



**Signal word:** Danger

#### Hazard statements:

H302 Harmful if swallowed.

H332 Harmful if inhaled.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

#### Precautionary statements:

P264 Wash skin thoroughly after handling.

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018

Page 2 of 10

### Gardotest solution 247

P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P271 Use only outdoors or in a well-ventilated area.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P233 Keep container tightly closed.  
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 Rinse mouth  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P322 Specific measures (see supplemental first aid instruction on this label).  
P363 Wash contaminated clothing before reuse  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P321 Specific treatment (see supplemental first aid instruction on this label).  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P405 Store locked up.  
P403+P233 Store in a well ventilated place. Keep container tightly closed.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

**Hazards not otherwise classified:** None

### SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 141-43-5	Monoethanolamine	<40
CAS number: 7732-18-5	Water, purified	>50
CAS number: 7647-01-0	Hydrochloric Acid	<10

**Additional Information:** None

### SECTION 4: First aid measures

#### Description of first aid measures

##### General notes:

Not determined or not applicable.

##### After inhalation:

Loosen clothing as necessary and position individual in a comfortable position  
Maintain an unobstructed airway  
Get medical advice/attention if you feel unwell  
Move to fresh air  
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell  
Move exposed individual to fresh air  
Immediately call a POISON CONTROL CENTER or seek medical attention

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018

Page 3 of 10

### Gardotest solution 247

#### After skin contact:

Rinse affected area with soap and water  
If symptoms develop or persist, seek medical attention  
Wash affected area with soap and water  
Seek medical attention if symptoms develop or persist  
Immediately remove all contaminated clothing  
Immediately call a POISON CONTROL CENTER or seek medical attention

#### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes  
Remove contact lenses, if present and easy to do  
Continue rinsing  
Get medical advice/attention  
Remove contact lens(es) if able to do so during rinsing  
Immediately call a POISON CONTROL CENTER or seek medical attention

#### After swallowing:

Rinse mouth and then drink plenty of water  
Do not induce vomiting  
Get medical advice/attention if you feel unwell  
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell  
Immediately call a POISON CONTROL CENTER or seek medical attention

#### Most important symptoms and effects, both acute and delayed

##### Acute symptoms and effects:

Not determined or not applicable.

##### Delayed symptoms and effects:

Not determined or not applicable.

#### Immediate medical attention and special treatment

##### Specific treatment:

Not determined or not applicable.

##### Notes for the doctor:

Not determined or not applicable.

### SECTION 5: Firefighting measures

#### Extinguishing media

##### Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

##### Unsuitable extinguishing media:

Not determined or not applicable.

#### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

#### Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing  
Refer to Section 8  
Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

#### Special precautions:

Heating causes a rise in pressure, risk of bursting and combustion  
Shut off sources of ignition  
Carbon monoxide and carbon dioxide may form upon combustion

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018

Page 4 of 10

### Gardotest solution 247

#### SECTION 6: Accidental release measures

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

- Ensure adequate ventilation
- Ensure air handling systems are operational
- Wear protective eye wear, gloves and clothing

##### Environmental precautions:

- Should not be released into the environment
- Prevent from reaching drains, sewer or waterway

##### Methods and material for containment and cleaning up:

- Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)
- Dispose of contents / container in accordance with local regulations

##### Reference to other sections:

- Not determined or not applicable.

#### SECTION 7: Handling and storage

##### Precautions for safe handling:

- Do not eat, drink, smoke or use personal products when handling chemical substances.
- Avoid breathing mist or vapor.
- Use only with adequate ventilation.

##### Conditions for safe storage, including any incompatibilities:

- Store in a cool, well-ventilated area.
- Store away from foodstuffs.

#### SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

##### Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Hydrochloric Acid	7647-01-0	ACGIH TLV C 2.0 ppm
NIOSH	Monoethanolamine	141-43-5	NIOSH REL TWA 3 ppm (8 mg/m <sup>3</sup> )
	Monoethanolamine	141-43-5	NIOSH REL ST 6 ppm (15 mg/m <sup>3</sup> )
	Hydrochloric Acid	7647-01-0	NIOSH REL C 5.0 ppm
	Hydrochloric Acid	7647-01-0	NIOSH REL C 7.0 mg/m <sup>3</sup>
United States (OSHA)	Hydrochloric Acid	7647-01-0	OSHA PEL C 5.0 ppm
	Hydrochloric Acid	7647-01-0	OSHA PEL C 7.0 mg/m <sup>3</sup>
	Monoethanolamine	141-43-5	OSHA PEL TWA 3 ppm (6 mg/m <sup>3</sup> )

##### Biological limit values:

- No biological exposure limits noted for the ingredient(s).

##### Information on monitoring procedures:

- Not determined or not applicable.

##### Appropriate engineering controls:

- Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.
- Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018

Page 5 of 10

### Gardotest solution 247

#### Personal protection equipment

##### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

##### Skin and body protection:

Select glove material impermeable and resistant to the substance.

##### Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

#### General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

Perform routine housekeeping.

Wash contaminated clothing before reusing.

### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

Appearance	Colorless to yellow liquid
Odor	Slightly ammonia
Odor threshold	Not determined
pH	10
Melting point/freezing point	Not determined
Initial boiling point/range	Not determined
Flash point (closed cup)	Not determined
Evaporation rate	<1
Flammability (solid, gas)	Not determined
Upper flammability/explosive limit	Not determined
Lower flammability/explosive limit	Not determined
Vapor pressure	Not determined
Vapor density	Not determined
Density	Not determined
Relative density	Approx. 1
Solubilities	Soluble in water
Partition coefficient (n-octanol/water)	Not determined
Auto/Self-ignition temperature	Not determined
Decomposition temperature	Not determined
Dynamic viscosity	Not determined
Kinematic viscosity	Not determined
Explosive properties	Not determined
Oxidizing properties	Not determined

#### Other information

### SECTION 10: Stability and reactivity

#### Reactivity:

Does not react under normal conditions of use and storage.

#### Chemical stability:

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018

Page 6 of 10

### Gardotest solution 247

Stable under normal conditions of use and storage.

#### Possibility of hazardous reactions:

None under normal conditions of use and storage.

#### Conditions to avoid:

None known.

#### Incompatible materials:

None known.

#### Hazardous decomposition products:

None known.

### SECTION 11: Toxicological information

#### Acute toxicity

**Assessment:** Harmful if swallowed Harmful if inhaled Harmful in contact with skin

**Product data:** No data available.

#### Substance data:

Name	Route	Result
Hydrochloric Acid	inhalation	LC50 - Mouse - 1,108 ppm / 1h
	oral	LD50 Rabbit: 900 mg/kg
Monoethanolamine	dermal	LD50 - Rat - 1000 mg/kg
	inhalation	LC50 - Mouse - >2420 mg/m <sup>3</sup> /2H
	oral	LD50 - Mouse - 700 mg/kg

#### Skin corrosion/irritation

**Assessment:** Causes severe skin burns and eye damage

**Product data:** No data available.

#### Substance data:

Name	Result
Hydrochloric Acid	Causes severe skin burns and eye damage.
Monoethanolamine	Causes severe skin burns and eye damage.

#### Serious eye damage/irritation

**Assessment:** Causes serious eye damage

**Product data:** No data available.

**Substance data:** No data available.

#### Respiratory or skin sensitization

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### International Agency for Research on Cancer (IARC):

Name	Classification
Hydrochloric Acid	Group 3 - Not classifiable as to its carcinogenicity to humans

**National Toxicology Program (NTP):** None of the ingredients are listed.

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018

Page 7 of 10

### Gardotest solution 247

#### Germ cell mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Reproductive toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Specific target organ toxicity (single exposure)

**Assessment:** May cause respiratory irritation

**Product data:** No data available.

**Substance data:** No data available.

#### Specific target organ toxicity (repeated exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

### SECTION 12: Ecological information

#### Acute (short-term) toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:**

Name	Result
Hydrochloric Acid	LC50: 282 mg/L (96Hr)

#### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:** No data available.

#### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

#### Bioaccumulative potential

**Product data:** No data available.

**Substance data:** No data available.

#### Mobility in soil

**Product data:** No data available.

**Substance data:** No data available.

**Other adverse effects:** No data available.

### SECTION 13: Disposal considerations

**Disposal methods:**

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018


Page 8 of 10

## Gardotest solution 247


It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

### SECTION 14: Transport information


#### United States Transportation of dangerous goods (49 CFR DOT)

UN number	UN 2735
UN proper shipping name	Alkylamines, N.O.S Ethanolamine
UN transport hazard class(es)	8 
Packing group	III
Environmental hazards	None
Special precautions for user	None

#### International Maritime Dangerous Goods (IMDG)

UN number	UN 2735
UN proper shipping name	Alkylamines, N.O.S Ethanolamine
UN transport hazard class(es)	8 
Packing group	III
Environmental hazards	None
Special precautions for user	None

#### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN 2735
UN proper shipping name	Alkylamines, N.O.S Ethanolamine
UN transport hazard class(es)	8 
Packing group	III
Environmental hazards	None
Special precautions for user	None

### SECTION 15: Regulatory information

#### United States regulations

##### Inventory listing (TSCA):

7647-01-0	Hydrochloric Acid	Listed
141-43-5	Monoethanolamine	Listed
7732-18-5	Water, purified	Listed

**Significant New Use Rule (TSCA Section 5):** Not determined.

**Export notification under TSCA Section 12(b):** Not determined.

##### SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
Yes	No	No	No	No



## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018

Page 9 of 10

### Gardotest solution 247

#### SARA Section 302 extremely hazardous substances:

7647-01-0	Hydrochloric Acid	Listed
-----------	-------------------	--------

#### SARA Section 313 toxic chemicals:

7647-01-0	Hydrochloric Acid	Listed
141-43-5	Monoethanolamine	Not Listed
7732-18-5	Water, purified	Not Listed

#### CERCLA:

7647-01-0	Hydrochloric Acid	Listed	5000 lbs.
-----------	-------------------	--------	-----------

RCRA: Not determined.

#### Section 112(r) of the Clean Air Act (CAA):

7647-01-0	Hydrochloric Acid	Listed
-----------	-------------------	--------

#### Massachusetts Right to Know:

7647-01-0	Hydrochloric Acid	Listed
141-43-5	Monoethanolamine	Listed
7732-18-5	Water, purified	Not Listed

#### New Jersey Right to Know:

7647-01-0	Hydrochloric Acid	Listed
141-43-5	Monoethanolamine	Listed
7732-18-5	Water, purified	Not Listed

#### New York Right to Know:

7647-01-0	Hydrochloric Acid	Listed
141-43-5	Monoethanolamine	Listed
7732-18-5	Water, purified	Not Listed

#### Pennsylvania Right to Know:

7647-01-0	Hydrochloric Acid	Listed
141-43-5	Monoethanolamine	Listed
7732-18-5	Water, purified	Not Listed

California Proposition 65: None of the ingredients are listed.

### SECTION 16: Other information

Abbreviations and Acronyms: None

#### Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

**Initial preparation date:** 02.26.2018

Page 10 of 10

### Gardotest solution 247

applicable laws and regulations applicable to this material.

**NFPA:** 3-0-0

**HMIS:** 3-0-0

**Initial preparation date:** 02.26.2018

**End of Safety Data Sheet**