QIAGEN

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/14/2005 Reviewed on 11/14/2005

1 Identification of substance

· **Product details**

· **Trade name: QIAzol Lysis Reagent**

· **Manufacturer/Supplier:**
QIAGEN GmbH, QIAGEN Str. 1, 40724 Hilden, Germany
Tel.: (+49)-2103/29-0

· **Information department:**
QIAGEN Technical Service
QIAGEN Inc., 27220 Turnberry Lane, Valencia, CA 91355, USA
Tel.: 1-800-DNA-PREP (1-800-362-7737)

· **Emergency information:**
Poison Information Center Mainz, Germany
Tel.: +49-6131-19240 / 24 h

2 Composition/Data on components

· **Chemical characterization**

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

· **Dangerous components:**

108-95-2 phenol	25-50%
593-84-0 guanidinium thiocyanate	10-25%

3 Hazards identification

· **Hazard description:**
Toxic

· **Information pertaining to particular dangers for man and environment:**
Harmful by inhalation.
Toxic in contact with skin and if swallowed.
Contact with acids liberates very toxic gas.
Causes burns.

· **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **NFPA ratings (scale 0 - 4)**
Health = 3
Fire = 0
Reactivity = 0

· **WHMIS-ratings (scale 0 - 4)**
Health = 3
Fire = 0
Reactivity = 0

4 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 and to be sure call for a doctor.

· **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Call a doctor immediately.

· **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.

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· **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

5 Fire fighting measures

· **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **Protective equipment:** Do not inhale explosion gases or combustion gases.

6 Accidental release measures

· **Person-related safety precautions:** Ensure adequate ventilation
· **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
· **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

· **Handling:**
· **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
· **Information about protection against explosions and fires:** No special measures required.

· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Do not store together with acids.
· **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store under lock and key and with access restricted to technical experts or their assistants only.

8 Exposure controls and personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

· CAS No. Designation of material	%	Type	Value Unit
108-95-2 phenol			
ACGIH TLV	19 mg/m³, 5 ppm Skin; BEI		
NIOSH REL	Short-term value: C 60* mg/m³, C 15.6* ppm Long-term value: 19 mg/m³, 5 ppm *15-min		
OSHA PEL	19 mg/m³, 5 ppm Skin		

· **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.
Avoid contact with the eyes and skin.
· **Protection of hands:** Protective gloves
· **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.

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· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:** Tightly sealed goggles

9 Physical and chemical properties

· **General Information**

Form:	Fluid
Color:	Red
Odor:	Characteristic

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

· **Flash point:** Not applicable.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Vapor pressure at 20°C (68°F):** 23 hPa (17 mm Hg)

· **Density:** Not determined.

· **Solubility in / Miscibility with Water:** Fully miscible.

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Dangerous reactions** Reacts with acids, alkalis and oxidizing agents.
· **Dangerous products of decomposition:** Danger of toxic pyrolysis products.

11 Toxicological information

· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** Caustic effect on skin and mucous membranes.
· **on the eye:** Strong caustic effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Toxic
Harmful
Corrosive
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

· **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.

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Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

· **Product:**
· **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

· **DOT regulations:**
· **Hazard class:** 8
· **Identification number:** UN1760
· **Packing group:** II
· **Proper shipping name (technical name):** CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate-phenol solution)
· **Label** 8

· **Land transport ADR/RID (cross-border):**
· **ADR/RID class:** 8 Corrosive substances
· **Danger code (Kemler):** 80
· **UN-Number:** 1760
· **Packaging group:** II
· **Description of goods:** 1760 Corrosive liquid, n.o.s., guanidine thiocyanate-phenol solution

· **Maritime transport IMDG:**
· **IMDG Class:** 8
· **UN Number:** 1760
· **Label** 8
· **Packaging group:** II
· **Marine pollutant:** No
· **Propper shipping name:** CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate-phenol solution)

· **Air transport ICAO-TI and IATA-DGR:**
· **ICAO/IATA Class:** 8
· **UN/ID Number:** 1760
· **Label** 8
· **Packaging group:** II
· **Propper shipping name:** CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate-phenol solution)

15 Regulations

· **Sara**
· **Section 355 (extremely hazardous substances):**
108-95-2 phenol
· **Section 313 (Specific toxic chemical listings):**
108-95-2 phenol

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· **TSCA (Toxic Substances Control Act):**
· **Proposition 65**
· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Cancerogenity categories**
· **EPA (Environmental Protection Agency)**

108-95-2 phenol D

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

108-95-2 phenol

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

108-95-2 phenol A4 25-50%

· **MAK (German Maximum Workplace Concentration)**

108-95-2 phenol 3

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Product related hazard informations:**
Observe the general safety regulations when handling chemicals.
The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**
Toxic

· **Hazard-determining components of labelling:**
phenol

· **Risk phrases:**
Harmful by inhalation.
Toxic in contact with skin and if swallowed.
Contact with acids liberates very toxic gas.
Causes burns.

· **Safety phrases:**
Keep away from food, drink and animal feedingstuffs.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable protective clothing, gloves and eye/face protection.
In case of accident or if you feel unwell, seek medical advice immediately.

· **National regulations:**

· **Technical instructions (air):**

Class	Share in %
I	25-50

· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

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.