

# SAFETY DATA SHEET



## QIAzol Lysis Reagent

Version  
1.0

Revision Date:  
06/23/2023

Date of last issue: -  
Date of first issue: 06/23/2023

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### Safety Data Sheet (SDS) cover letter for product:

#### QIAzol Lysis Reagent

Catalog number: 79306  
Document ID: 800000000607  
Country / Language: US / EN

This product contains one or more components with related SDS, listed below. You can find the SDS for each component on the following pages.

#### Components with SDS:

- QIAzol Lysis Reagent Version: -

Kind regards,  
Your QIAGEN Team

Email [cpc@qiagen.com](mailto:cpc@qiagen.com) | Website [www.qiagen.com/safety](http://www.qiagen.com/safety)

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Product name : QIAzol Lysis Reagent

**Manufacturer or supplier's details**Company : QIAGEN GmbH  
QIAGEN Str. 1  
D-40724 Hilden

Telephone : +49-(0)2103-29-0

Responsible Department : QIAGEN Inc.  
19300 Germantown Road  
Germantown, MD 20874, USA  
Tel.: 800-426-8157  
<http://support.qiagen.com>E-mail address : [cpc@qiagen.com](mailto:cpc@qiagen.com)  
Responsible/issuing personEmergency telephone : CHEMTREC  
number USA & Canada 1-800-424-9300  
CHEMTREC: 1-800-424-9300**Recommended use of the chemical and restrictions on use**

Recommended use : Laboratory chemicals

**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**Acute toxicity (Oral) : Category 3  
Acute toxicity (Inhalation) : Category 3  
Acute toxicity (Dermal) : Category 3  
Skin corrosion : Category 1B  
Serious eye damage : Category 1  
Germ cell mutagenicity : Category 2  
Specific target organ toxicity : Category 2  
- repeated exposure**GHS label elements**

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Hazard pictograms

:



Signal word

:

Danger

Hazard statements

:

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.  
H314 Causes severe skin burns and eye damage.  
H341 Suspected of causing genetic defects.  
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

:

**Prevention:**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe mist or vapours.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before reuse.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture

:

Mixture

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### Components

Chemical name	CAS-No.	Concentration (% w/w)
phenol	108-95-2	>= 30 - < 50
guanidinium thiocyanate	593-84-0	>= 30 - < 50

Actual concentration is withheld as a trade secret

### SECTION 4. FIRST AID MEASURES

General advice	: Move out of dangerous area. Show this safety data sheet to the doctor in attendance.
If inhaled	: Call a physician or poison control centre immediately. If unconscious, place in recovery position and seek medical advice.
In case of skin contact	: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
In case of eye contact	: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses. Protect unharmed eye.
If swallowed	: If accidentally swallowed obtain immediate medical attention. Rinse mouth with water. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	: Toxic if swallowed, in contact with skin or if inhaled. Causes serious eye damage. Suspected of causing genetic defects. May cause damage to organs through prolonged or repeated exposure. Causes severe burns. No information available.
Notes to physician	: No information available.

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific hazards during firefighting	: Do not allow run-off from fire fighting to enter drains or water courses. Exposure to decomposition products may be a hazard to health.
Hazardous combustion products	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Carbon oxides Sulphur oxides
Further information	: In the event of fire and/or explosion do not breathe fumes.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.  
Unsuitable cleaning agents  
sodium hypochlorite

### SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
- Further information on storage stability : No decomposition if stored and applied as directed.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
phenol	108-95-2	TWA	5 ppm	ACGIH
		TWA	5 ppm 19 mg/m <sup>3</sup>	OSHA Z-1
		TWA	5 ppm 19 mg/m <sup>3</sup>	OSHA P0
		C	15.6 ppm 60 mg/m <sup>3</sup>	NIOSH REL
		TWA	5 ppm 19 mg/m <sup>3</sup>	NIOSH REL

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### Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
phenol	108-95-2	Phenol	Urine	End of shift (As soon as possible after exposure ceases)	250 mg/g Creatinine	ACGIH BEI

### Personal protective equipment

- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
- Hand protection
- Material : Protective gloves
- Remarks : The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
- Eye protection : Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.  
Do not wear contact lenses.  
Ensure that eyewash stations and safety showers are close to the workstation location.
- Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.  
acid-resistant protective clothing  
Footwear protecting against chemicals
- Hygiene measures : Avoid contact with skin, eyes and clothing.  
Keep away from food and drink.  
Wash hands before breaks and immediately after handling the product.  
Ensure adequate ventilation, especially in confined areas.  
Keep working clothes separately.  
Avoid contact with the skin and the eyes.  
When using do not eat, drink or smoke.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : No data available
- Odour : characteristic
- Odour Threshold : No data available
- pH : No data available

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Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Burning rate	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	1.08 g/cm <sup>3</sup>
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	not determined
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	Not applicable
Oxidizing properties	:	No data available

### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. Hazardous decomposition products formed under fire conditions. Thiocyanates can develop poisonous gas in contact with strong acids. Keep away from oxidizing agents, and acidic or alkaline products.

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Conditions to avoid : No data available  
Incompatible materials : No data available  
Hazardous decomposition products : No decomposition if stored and applied as directed.

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Toxic if swallowed, in contact with skin or if inhaled.

**Product:**

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

**Components:****phenol:**

Acute oral toxicity : LD50 Oral (Rat): 317 mg/kg

Acute inhalation toxicity : LC0 (Rat, female): 900 mg/m<sup>3</sup>  
Exposure time: 8 h  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 Dermal (Rabbit): 630 mg/kg

**guanidinium thiocyanate:**Acute oral toxicity : LD50 Oral (Rat, female): 593 mg/kg  
Method: OECD Test Guideline 401

Acute toxicity (other routes of administration) : LD50 (Mouse): 300 mg/kg

**Skin corrosion/irritation**

Causes severe burns.

**Product:**Remarks : Extremely corrosive and destructive to tissue.  
Causes skin burns.**Serious eye damage/eye irritation**

Causes serious eye damage.

**Product:**

Remarks : May cause irreversible eye damage.

**Components:****phenol:**

Assessment : Corrosive



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Not classified based on available information.

**Respiratory sensitisation**

Not classified based on available information.

**Product:**

Remarks : No data available

**Germ cell mutagenicity**

Suspected of causing genetic defects.

**Carcinogenicity**

Not classified based on available information.

**IARC** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.**NTP** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

May cause damage to organs through prolonged or repeated exposure.

**Aspiration toxicity**

Not classified based on available information.

**Further information****Product:**

Remarks : No data available

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**

Toxicity to fish : Remarks: No data available

Toxicity to algae/aquatic plants : Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

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### Components:

#### **phenol:**

Toxicity to fish : LC50 (Carassius auratus (goldfish)): 36.10 - 68.8 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 56 mg/l  
aquatic invertebrates Exposure time: 48 h

Toxicity to algae/aquatic : (Chlorella vulgaris (Fresh water algae)): 370 mg/l  
plants Exposure time: 96 h

#### **guanidinium thiocyanate:**

Toxicity to fish : LC50 (Poecilia reticulata (guppy)): 89.1 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 42.4 mg/l  
aquatic invertebrates Exposure time: 48 h

Toxicity to fish (Chronic : NOEC (Poecilia reticulata (guppy)): 25 mg/l  
toxicity) Exposure time: 96 d

### **Persistence and degradability**

No data available

### **Bioaccumulative potential**

#### **Product:**

Bioaccumulation : Remarks: No data available

### Components:

#### **phenol:**

Partition coefficient: n- : log Pow: 1.46  
octanol/water

#### **Mobility in soil**

No data available

### **Other adverse effects**

#### **Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82  
Protection of Stratospheric Ozone - CAA Section 602 Class I  
Substances  
Remarks: This product neither contains, nor was  
manufactured with a Class I or Class II ODS as defined by the  
U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A +  
B).

Additional ecological : An environmental hazard cannot be excluded in the event of  
information unprofessional handling or disposal.  
Harmful to aquatic life.  
Harmful to aquatic life with long lasting effects.

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- Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Send to a licensed waste management company.  
Dispose of as hazardous waste in compliance with local and national regulations.
- Contaminated packaging : Dispose of as unused product.  
Do not re-use empty containers.

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

- UN number : UN 2922  
Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S.  
(GUANIDINE THIOCYANATE, phenol)  
Class : 8  
Subsidiary risk : 6.1  
Packing group : III  
Labels : 8 (6.1)

**IATA-DGR**

- UN/ID No. : UN 2922  
Proper shipping name : Corrosive liquid, toxic, n.o.s.  
(guanidine thiocyanate, phenol)  
Class : 8  
Subsidiary risk : 6.1  
Packing group : III  
Labels : Corrosive, Toxic  
Packing instruction (cargo aircraft) : 856  
Packing instruction (passenger aircraft) : 852

**IMDG-Code**

- UN number : UN 2922  
Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S.  
(guanidine thiocyanate, phenol)  
Class : 8  
Subsidiary risk : 6.1  
Packing group : III  
Labels : 8 (6.1)  
EmS Code : F-A, S-B  
Marine pollutant : no

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**National Regulations****49 CFR**

- UN/ID/NA number : UN 2922  
Proper shipping name : Corrosive liquids, toxic, n.o.s.  
(guanidine thiocyanate, phenol)

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Class : 8  
Subsidiary risk : 6.1  
Packing group : III  
Labels : CORROSIVE, TOXIC  
ERG Code : 154  
Marine pollutant : no

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## SECTION 15. REGULATORY INFORMATION

### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
phenol	108-95-2	1000	2000

### SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
phenol	108-95-2	1000	2000

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

Components	CAS-No.	Component TPQ (lbs)
phenol	108-95-2	10000

**SARA 311/312 Hazards** : Acute toxicity (any route of exposure)  
Germ cell mutagenicity  
Specific target organ toxicity (single or repeated exposure)  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

phenol 108-95-2 >= 30 - < 50 %

### California List of Hazardous Substances

phenol 108-95-2

### California Permissible Exposure Limits for Chemical Contaminants

phenol 108-95-2

### TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

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ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / C	:	Ceiling value not be exceeded at any time.
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

SDS Number : 600000001444

Revision Date : 06/23/2023

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a

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guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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