

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product code 15596026
Product name TRIZOL REAGENT

Contact manufacturer
 INVITROGEN CORPORATON
 1600 FARADAY AVENUE
 PO BOX 6482
 CARLSBAD, CA 92008
 760-603-7200

INVITROGEN CORPORATION
 2270 INDUSTRIAL STREET
 BURLINGTON, ONT
 CANADA L7P 1A1
 800-263-6236

GIBCO PRODUCTS
 INVITROGEN CORPORATION
 3175 STALEY ROAD P.O. BOX 68
 GRAND ISLAND, NY 14072
 716-774-6700

Emergency Number (Spills, Exposures): 301/431-8585 (24-hour)
 800/451-8346 (24-hour)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous/Non-hazardous Components

Chemical Name	CAS-No	Weight %
Phenol	108-95-2	30-60

3. HAZARDS IDENTIFICATION

Emergency Overview

Corrosive. Highly toxic. Toxic if swallowed.

Form
 Liquid

**Principle Routes of Exposure/
Potential Health effects**

Eyes Corrosive to the eyes and may cause severe damage including blindness.
Skin Causes burns. Components of the product may be absorbed into the body through the skin.
Inhalation Toxic by inhalation.
Ingestion Toxic if swallowed.

Specific effects

Carcinogenic effects No information available
Mutagenic effects No information available
Reproductive toxicity No information available
Sensitization No information available

Target Organ Effects No information available

HMIS

Health	No Information Available
Flammability	No Information Available
Reactivity	No Information Available

4. FIRST AID MEASURES

Skin contact Wash off immediately with plenty of water
Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
Ingestion Never give anything by mouth to an unconscious person
Inhalation Move to fresh air
Notes to physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Dry chemical
Special protective equipment for firefighters Wear self-contained breathing apparatus and protective suit

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Use personal protective equipment
Methods for cleaning up Soak up with inert absorbent material

7. HANDLING AND STORAGE

Handling No special handling advice required
Storage Keep in properly labelled containers

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

Exposure limits

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Phenol	19 mg/m ³ 5 ppm	-	5 ppm	-

Engineering measures Ensure adequate ventilation, especially in confined areas

Personal protective equipment

Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment
Hand protection	Protective gloves
Eye protection	Safety glasses with side-shields
Skin and body protection	Lightweight protective clothing
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice
Environmental exposure controls	Prevent product from entering drains

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form	Liquid
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Important Health Safety and Environmental Information

Boiling point/range	°C No data available	°F No data available
Melting point/range	°C No data available	°F No data available
Flash point	°C No data available	°F No data available
Autoignition temperature	°C No data available	°F No data available
Oxidizing properties	No information available	
Water solubility	No data available	

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Materials to avoid	Strong oxidizing agents. Strong acids.
Hazardous decomposition products	Sulphur oxides. hydrogen cyanide (hydrocyanic acid). Carbon oxides, Nitrogen Oxides.
Polymerization	Hazardous polymerisation does not occur

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Phenol	317 mg/kg (Rat)	630 mg/kg (Rabbit)	No data available

Principle Routes of Exposure/

Potential Health effects

Eyes	Corrosive to the eyes and may cause severe damage including blindness.
Skin	Causes burns. Components of the product may be absorbed into the body through the skin.
Inhalation	Toxic by inhalation.
Ingestion	Toxic if swallowed.

Specific effects

Carcinogenic effects	No information available
Mutagenic effects	No information available
Reproductive toxicity	No information available
Sensitization	No information available

Target Organ Effects	No information available
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12. ECOLOGICAL INFORMATION

Ecotoxicity effects No information available.
Mobility No information available.
Biodegradation No information available.
Bioaccumulation No information available.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations

14. TRANSPORT INFORMATION

IATA

Proper shipping name Phenol solution
Hazard Class 6.1
Subsidiary Class No information available
Packing group II
UN-No UN2821

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	PICCS	ENCS	DSL	NDSL	AICS
Phenol	Listed	Listed	Listed	Listed	-	Listed

U.S. Federal Regulations

SARA 313
Not regulated

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight %</u>
Phenol	108-95-2	30-60

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product contains the following HAPs:

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight %</u>
Phenol	108-95-2	30-60

U.S. State Regulations

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
Phenol	Listed	Listed	Listed	Listed	Listed

California Proposition 65

This product contains the following Proposition 65 chemicals:

WHMIS hazard class:

Not determined

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

16. OTHER INFORMATION

This material is sold for research and development purposes only. It is not for any human or animal therapeutic or clinical diagnostic use. It is not intended for food, drug, household, agricultural, or cosmetic use. An individual technically qualified to handle potentially hazardous chemicals must supervise the use of this material.

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End of Safety Data Sheet