

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product Name: RNA Extraction Solution

Other means of identification

Product No. G3013-100ML

Recommended use of the chemical and restrictions on use

Recommended use This product is for research and development only

Restrictions on use Laboratory chemicals; synthesis of substances

Details of the supplier of the safety data sheet

Supplier Address: MediRes Corp.
109 Elm Street
Sudbury, ON. P3C 1T4
Canada

Company Phone Number 705-222-2847
E-mail address sales@medi-res.com

Emergency telephone number

24 Hour Emergency Phone Number 705-222-2847

SECTION 2: Hazards identification

GSH Classification

Signal Word: DANGER

Hazard pictograms**Health hazards**

Acute oral toxicity	Category 4
Acute dermal toxicity	Category 4
Acute inhalation toxicity - vapor	Category 4
Skin corrosion/irritation	Category 1 B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (STOT) – single exposure	Category 2
Germ cell mutagenicity	Category 2

Physical hazards

Not Hazardous

Environmental hazards

Chronic aquatic hazard Category 3

Hazard Statements

H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H332 - Harmful 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
H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements

Prevention

P264 - Wash hands thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood

Response

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P330 - Rinse mouth
P314 - Get medical advice/attention if you feel unwell

Storage

Not Applicable

Disposal

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

Other hazards

Not Applicable

HMIS

Health 4 *
Flammability 0
Reactivity 0

SECTION 3: Composition/information on ingredients

Mixture

Chemical name	CAS No.	Common name	EC No.	Weight-%
Thiocyanic acid, compound with guanidine (1:1)	593-84-0	Not applicable	209-812-1	25-35
Phenol	108-95-2	Not applicable	203-632-7	45-55

When exposed to acids or bleach, this product can release toxic gases. Avoid adding acids or bleach to any liquid waste containing this reagent. Always handle all chemicals with care and caution.

SECTION 4: First-aid measures*Description of first aid measures*

Inhalation	Move the person to fresh air. If they are not breathing, administer artificial respiration. Seek medical attention or contact a poison control center immediately.
Eye contact	Rinse thoroughly with water for several minutes, including under the eyelids. If contact lenses are present and can be easily removed, take them out and continue rinsing. Flush the area with plenty of water for at least 15 minutes. Seek immediate medical attention.
Skin contact	Rinse the affected skin thoroughly with water. Remove contaminated clothing and gloves, including their inner surfaces, and wash them before reusing. Wash the skin immediately with plenty of water for at least 15 minutes. Seek medical attention without delay.
Ingestion	Do not administer anything orally to an unconscious person. Avoid inducing vomiting unless directed by medical professionals. Contact a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed

H302 - Harmful if ingested.
H312 - Harmful upon skin contact.
H332 - Harmful if inhaled.
H314 - Causes severe skin burns and serious eye damage.
H341 - Suspected of causing genetic defects.
H373 - May cause organ damage with prolonged or repeated exposure.
H412 - Harmful to aquatic life with long-lasting effects.

Indication of any immediate medical attention and special treatment needed

If on skin (or hair): Remove all contaminated clothing immediately. Rinse the skin thoroughly with water or take a shower.
If swallowed: Contact a poison control center or doctor/physician immediately.
If in eyes: Rinse carefully with water for several minutes. If contact lenses are present and easy to remove, take them out and continue rinsing.
If inhaled: Move the person to fresh air and ensure they are comfortable for breathing. Contact a poison control center or doctor/physician immediately.

SECTION 5: Fire-fighting measures

Suitable Extinguishing Media	Water spray. Carbon dioxide (CO2). Foam. Dry chemical.
Unsuitable Extinguishing Media	No information available.
Specific hazards arising from the chemical	No information available.
Explosion data	

Sensitivity to mechanical impact	None
Sensitivity to static discharge	None
Special protective equipment for fire-fighters	Standard procedure for chemical fires.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	<p>Ensure proper ventilation in the work area.</p> <p>Always use the recommended personal protective equipment (PPE).</p> <p>Utilize appropriate protective gear.</p> <p>Avoid direct contact with skin, eyes, or clothing.</p> <p>Refer to Section 8 for additional details.</p>
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Environmental precautions	No special environmental precautions required. Avoid discharge into drains and waterways whenever possible.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Soak up with inert absorbent material.

SECTION 7: Handling and storage

Precautions for safe handling	<p>Ensure proper ventilation at all times and use personal protective equipment (PPE) as required. Always wear the recommended PPE to minimize risks. Avoid contact with eyes, skin, and clothing, and take precautions to prevent inhalation of dust, fumes, gas, mist, vapors, or spray. For additional information, refer to Section 8.</p>
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Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.
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SECTION 8: Exposure controls/personal protection

Exposure limits

Chemical name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Thiocyanic acid, compound with guanidine (1:1)	None	None	None	None
Phenol	5 ppm 19 mg/m ³	None	5 ppm	None

Engineering Measures

Exposure controls

Eye/face protection

Wear tightly sealed safety glasses with side shields (or goggles).

Skin and body protection

Wear suitable protective clothing.

Respiratory protection

If ventilation is inadequate, wear a respirator and components that meet the standards and approvals of the relevant government regulations.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No specific environmental precautions are necessary; however, avoid releasing the substance into drains or waterways whenever possible.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Purple
Odor	No data
Odor threshold	No data

Property	Values	Remarks, Method
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air	No data available	None known
Vapor Pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known

Other Information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available

Molecular weight	No information available
VOC content (%)	No information available
Liquid density	No information available
Bulk density	No information available

SECTION 10: Stability and Reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Exposure to acids or bleach can release toxic gases. Avoid adding acids or bleach to any liquid waste containing this product.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

SECTION 11: Toxicological information

Information on toxicological effects

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Thiocyanic acid, compound with guanidine (1:1)	593 mg/kg	No data available	No data available
Phenol	340 mg/kg (Rat)	630 mg/kg(Rabbit)	No data available

Information on likely routes of exposure

Acute toxicity	Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.
Skin corrosion/irritation	Causes skin burns
Serious eye damage/irritation	Causes serious eye damage
Respiratory or skin sensitization	Data are conclusive but insufficient for classification
Specific target organ toxicity (STOT) – single exposure	Data are conclusive but insufficient for classification
Specific target organ toxicity(STOT) – repeated exposure	May cause damage to organs through prolonged or repeated exposure
Carcinogenicity	Data are conclusive but insufficient for classification
Germ cell mutagenicity	Product is or contains a chemical which may cause mutations in the germ cells of humans.
Reproductive toxicity	Data are conclusive but insufficient for classification
Aspiration hazard	Data are conclusive but insufficient for classification

Symptoms related to the physical, chemical and toxicological

Symptoms No information available

Acute toxicity

Unknown acute toxicity

5 % of the mixture consists of ingredient(s) of unknown toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Glycerol	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m ³ (Rat) 1 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available

Serious eye damage/eye irritation No information available

Respiratory or skin sensitization No information available

Germ cell mutagenicity No information available

Carcinogenicity No information available

Reproductive toxicity No information available

STOT – single exposure No information available

STOT – repeated exposure No information available

Aspiration hazard No information available

SECTION 12: Ecological information

Ecotoxicity

Hazardous to the Aquatic Environment.

Chemical name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Thiocyanic acid, compound with guanidine (1:1)	No data available	No data available	No data available	No data available	No data available
Phenol	Desmodesmus subspicatus EC50 187 - 279 mg/L (72 h) Pseudokirchneriella	Daphnia magna EC50 4.24 - 10.7 mg/L (48 h) Daphnia magna EC50 10.2 - 15.5 mg/L	No data available	No data available	logPow1.47

	subcapitata EC50 46.42 mg/L (96 h)	(48 h)			
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Mobility in soil
Persistence and degradability
Bioaccumulative potential
Results of PBT and vPvB assessment
Other adverse effects

No information available.
 No information available.
 No information available.
 No information available.
 Not Applicable.

SECTION 13: Disposal considerations

Waste treatment methods

Waste generation should be minimized whenever possible. Empty containers or liners may contain product residues and should be handled accordingly. Dispose of this material and its container using approved disposal methods. Ensure that the disposal of this product, its solutions, or any by-products complies with all applicable local, regional, and national regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Classified as dangerous under transport regulations

UN number or ID number: 1760

UN proper shipping name: Corrosive liquid, n.o.s. (Phenol - Guanidine thiocyanate solution)

Transport hazard class(es): 8

Packing group: II

Environmental hazards: Not Applicable

Special precautions for user: Not Applicable

Maritime transport in bulk according to IMO instruments: Not Applicable

SECTION 15: Regulatory information

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

US Federal Regulations

SARA 313

This product contains the following toxic chemical(s) subject to the notification requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report annual emissions of specified chemicals and chemical categories. If you repackaging or redistribute this product to industrial customers, a notice similar to this one should be sent to those customers.

Chemical Name	CAS No.	Weight-%	SARA 313 - Threshold Values
Phenol	108-95-2	45-55	1.0

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs

Chemical Name	CAS No.	Weight-%	HAPs Data
Phenol	108-95-2	45-55	Present

SECTION 16: Other information

Revision date 11/18/2024

Prepare by MediRes Corp

Revision note SDS is valid 3 years from revision date. Contact sales@medi-res.com for latest revision.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge and belief at the date of publication. This information is intended only as a guide for safe handling, use, processing, storage, transportation, disposal and release and should not be taken as a warranty or quality specification. The information relates only to the specific material and may not be valid for such material used in combination with any other materials or in any process unless specified in the text. MediRes Corp. will not be liable for any damages resulting from handling or contact with the product.

End of Safety Data Sheet