



7040 Virginia Manor Road
Beltsville, MD 20705, USA
Web: www.abpbio.com
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Material Safety Data Sheet

Section 1. Identification of the Substance/Mixture

Product name: TRIzol LS Reagent

Manufacturer/Supplier identification

ABP Biosciences
7040 Virginia Manor Road, Beltsville, MD 20705, USA
Web: www.abpbio.com
Tel: 301-658-7993
Email: info@abpbio.com

For research use only. Not for use in diagnosis procedures

Section 2. Hazards Identification

GHS Classification

Signal Word:

Danger



Hazard pictograms:

Health hazards:

Acute oral toxicity	Category 3
Acute dermal toxicity	Category 3
Acute inhalation toxicity - vapor	Category 3
Skin corrosion/irritation	Category 1B
Serious eye damage/irritation	Category 1
Specific target organ toxicity (STOT) – single exposure	Category 3
Specific target organ toxicity (STOT) – repeated exposure	Category 2
Germ cell mutagenicity	Category 2

Physical hazards:

Not classified

Environmental hazards:

Chronic aquatic hazard	Category 3
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Hazard Statements:

H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H341 Suspected of causing genetic defects.

Precautionary Statements

Prevention:

P201 - Obtain special instructions before use.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

Substance/Mixture: Mixture

Substance name: TRIzol LS Reagent

Chemical Name	CAS No.	Weight-%
Guanidinium thiocyanate	593-84-1	15-40
Ammonium thiocyanate	1762-95-4	7-13
Phenol	108-95-2	30-60

We recommend handling all chemicals with caution.

Section 4. First Aid Measures

Description of first aid measures

Skin contact

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

Inhalation

Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

Notes to Physician

Treat symptomatically.



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Most important symptoms and effects, both acute and delayed

H302 - Harmful if swallowed H315 - Causes skin irritation H319 - Causes serious eye irritation.

Indication of any immediate medical attention and special treatment needed

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. If skin irritation occurs: Get medical advice/ attention. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Section 5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media	Water spray. Carbon dioxide (CO ₂). Foam. Dry chemical.
Unsuitable extinguishing media	No information available.

Special hazards arising from the substance or mixture

Not known

Protective equipment and precautions for firefighters

Standard procedure for chemical fires.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation
Always wear recommended Personal Protective Equipment
Use personal protection equipment
See section 8 for more information

Environmental precautions

Prevent product from entering drains. Do not allow material to contaminate ground water system.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. Handling and Storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

Section 8. Exposure Controls/Personal Protection

Control parameters

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters

Ingredients	CAS No.
Guanidinium thiocyanate	593-84-1
Ammonium thiocyanate	1762-95-4
Phenol	108-95-2

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

Hand protection Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	liquid
Odor	No data
Odor Threshold	No data
Melting point / melting range	°C No data
Boiling point / boiling range	°C No data
Flash point	°C No data
Autoignition Temperature	°C No data
Decomposition temperature	°C No data
Evaporation rate	No data
Flammability (solid, gas)	No data
Upper explosion limit	No data
Lower explosion limit	No data
Vapor Pressure	No data



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Vapor density	No data
Relative density	No data
Specific gravity	No data
Solubility	No data
Partition coefficient:	
n-octanol/water	No data
Viscosity	No data
Explosive properties	No data
Oxidizing properties	No data
Other information	No data.

Section 10. Stability and Reactivity

Reactivity	No decomposition if stored and applied as directed.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous reaction has not been reported.
Conditions to avoid	No information available.
Incompatible materials	No dangerous reaction known under conditions of normal use.
Hazardous decomposition products	No data available

Section 11. Toxicological information

Information on toxicological effects

Chemical Name	ID50 (oral, rat/mouse)	ID50 (dermal, rat/rabbit)	ID50 (inhalation, rat/mouse)
Guanidinium thiocyanate	593 mg/kg	No data available	No data available
Ammonium thiocyanate	750 mg/kg (Rat)	No data available	No data available
Phenol	340 mg/kg (Rat)	No data available	316 mg/m ³ (Rat)

Principal Routes of Exposure

Acute toxicity	Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.
Skin corrosion/irritation	Causes severe 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	Data are conclusive but insufficient for classification
Carcinogenicity	Data are conclusive but insufficient for classification

Germ cell mutagenicity	Data are conclusive but insufficient for classification
Reproductive toxicity	Data are conclusive but insufficient for classification
Aspiration hazard	Data are conclusive but insufficient for classification

Section 12. Ecological Information

Ecotoxicity

Hazardous to the Aquatic Environment.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects Contains a known or suspected endocrine disruptor.

Section 13. Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations. Do not empty into drains. Do not dispose of waste into sewer.

Section 14. Transport Information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

UN number 1760

UN proper shipping name Corrosive liquid

Transport hazard class(es) 8

Packing group II

Environmental hazards Not Applicable

Special precautions for user Not Applicable

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

Not Applicable.

Section 15. Regulatory Information

US Federal Regulations

SARA 313



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This product is not regulated by SARA.

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

This product does not contain HAPs

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

D2B - Toxic materials

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

Section 16. Other Information

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

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End of Material Safety Data Sheet