

1. PRODUCT & COMPANY IDENTIFICATION

Product Name : PureXtract RNAsol RNA Isolation Solution
Product Cat No : R6101
CAS No :
Manufacturer/Supplier : GenDEPOT LLC
PO Box 454
Barker, Tx 77413
Emergency Phone : 866.417.0078
Fax : 281-579-6876

2. HAZARD IDENTIFICATION

GHS Classification

Flammable liquids (Category 4), H227
Acute toxicity, Oral (Category 3), H301
Acute toxicity, Inhalation (Category 3), H331
Acute toxicity, Dermal (Category 3), H311
Skin corrosion (Category 1B), H314
Serious eye damage (Category 1), H318
Germ cell mutagenicity (Category 2), H341
Specific target organ toxicity - repeated exposure (Category 2), H373
Acute aquatic toxicity (Category 3), H402
Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram :



Signal word : Danger.

Hazard statement(s) :

H227 Combustible liquid
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.
H402 Harmful to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s) :

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.
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.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P321 Specific treatment (see supplemental first aid instructions on this label).
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391 Collect spillage
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant..

Hazards not other classified (HNOC) or not covered by GHS

none

3. COMPOSITION/INFORMATION ON INGREDIENT

Synonyms :

Component	Classification	Concentration
Phenol		
CAS No	108-95-2	50 ~ 60 %
EC No	203-632-7	
Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Muta. 2; STOT RE 2; Aquatic Acute 3; Aquatic Chronic 2; H301 + H311 + H331, H314, H341, H373, H402, H411		
Guanidinium Thiocyanate		
CAS No	593-84-0	30 ~ 40%
EC No	209-812-1	
Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; Aquatic Acute 3; Aquatic Chronic 3; H302 + H312 + H332, H314, H412		

4. FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If breathed in, move person into fresh air.
If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water.
Consult a physician.

In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed : Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Dry powder

Special protective equipment for firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products: Carbon oxides, Nitrogen oxides (NOx), Ammonia Carbon oxides, Nitrogen oxides (NOx)

Further information: Not data available.

6. ACCIDENTAL RELEASE MEASURES

Personal precaution: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precaution: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for contaminant and cleaning up: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precaution for safe handling: Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Condition for safe storage: Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: Store between the following temperatures: 2 to 8°C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Ingredient name	Exposure limits
Phenol, CAS 108-95-2	USA. ACGIH(TLV) TWA 5.00000 ppm
	USA.OSHA TWA 5.00000 ppm 19.000000 mg/m ³
	USA. NIOSH TWA 0.030000 ppm 19.000000 mg/m ³
	PEL, 5 ppm
	California permissible limits 19 mg/m ³ for chemical contaminants

Biological occupational exposure limits

Phenol, CAS 108-95-2	250mg/g Creatinine Urine ACGIH - Biological Exposure Indices (BEI)
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Personal protective equipment:

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Complete suit protecting against chemicals.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form	Liquid
Color	Red

Safety data:

pH	no data available
Melting point	no data available
Freezing point	no data available
Boiling point	no data available
Flash point	79°C (174°F) - closed cup
Ignition temperature	no data available
Auto-ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure	0.47 hPa (0.35 mmHg)
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapor density	no data available
Odor	Odorless
Odor threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Condition to avoid

Heat, flames and sparks. Light. Heat, flames and sparks

Materials to avoid

Strong oxidizing agents, Strong bases, Strong acids, Metals

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides Other decomposition products - Hydrogen cyanide (hydrocyanic acid) In the event of fire: see section 5

11 . TOXICOLOGICAL INFORMATON

Acute Toxicity

Oral LD50

no data available

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Mutagenicity (Germ cell mutagenicity)

no data available

Carcinogenicity

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.

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.

OSHA: 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 OSHA

Reproductive toxicity

no data available

Teratogenicity

no data available

Aspiration hazard

no data available

Additional information

Acrylamide toxicity is manifested as a sensorimotor peripheral neuropathy.
Liver - Irregularities - Based on Human Evidence
Liver - Irregularities - Based on Human Evidence (Acrylamide)

Specific target organ toxicity— single exposure (GHS)

no data available

Specific target organ toxicity— repeated exposure (GHS)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation

Aggravated Medical Condition

Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body.

Synergistic effects

no known significant effects or critical hazards.

Additional information

RTECS : no data available

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Circulatory collapse, tachypnea, paralysis, Convulsions, Coma., necrosis of mouth and G.I. Tract, Jaundice, respiratory failure, cardiac arrest

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence (Phenol)

12 . ECOLOGICAL INFORMATION

Toxicity

Product/ingredient name no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effect

Toxic to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13 . DISPOSAL CONSIDERATIONS

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14 . TRANSPORT INFORMATION

DOT(US)

UN number: 2922 Class: 8 (6.1) Packing group: III
 Proper shipping name :
 Corrosive liquids, toxic, n.o.s. (Guanidinium thiocyanate, Phenol)
 Reportable Quantity (RQ): 2000 lbs
 Poison Inhalation Hazard: No

IMDG

UN number: 2922 Class: 8 (6.1) Packing group: III EMS No: F-A, S-B
 Proper shipping name :
 Corrosive liquids, toxic, n.o.s. (Guanidinium thiocyanate, Phenol)

IATA

UN number: 2922 Class: 8 (6.1) Packing group: III
 Proper shipping name :
 Corrosive liquids, toxic, n.o.s. (Guanidinium thiocyanate, Phenol)

15 . REGULATORY INFORMATION

United States

SARA 302 components : The following components are subject to
 Phenol CAS-No. 108-95-2
 SARA 313 components : The following components are subject to
 Phenol CAS-No. 108-95-2
 SARA 311/312 : Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Clean Air Act Section 112(b) : not listed
 Hazardous air pollutants (HAPs)

Clean Air Act Section 602 : not listed
 Class I substances

Clean Air Act Section 602 : not listed
 Class II substances

DEA List I Chemicals : not listed
 (Precursor chemicals)

DEA List II Chemicals : not listed
 (Essential chemicals)

States Regulation

Massachusetts : Phenol CAS-No. 108-95-2
 New Jersey : Phenol CAS-No. 108-95-2
 Guanidinium thiocyanate 593-84-0
 Pennsylvania : Phenol CAS-No. 108-95-2
 Guanidinium thiocyanate 593-84-0

California Prop. 65 Components
 This product does not contain any chemicals known to State of California to
 cause cancer, birth defects, or any other reproductive harm.

Canada

Not determined

Canadian lists
 Canadian NPRI : Not determined
 CEPA Toxic substances : Not determined

16 . OTHER INFORMATION

HIMS Rating:

Health hazard : 3
 Chronic Health Hazard : *
 Flammability : 2
 Physical hazards: 0

NFPA Rating:

Health Hazard: 3
 Fire: 2
 Reactivity Hazard: 0

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity
 Aquatic Acute Acute aquatic toxicity
 Aquatic Chronic Chronic aquatic toxicity
 Eye Dam. Serious eye damage
 H227 Combustible liquid.
 H301 Toxic if swallowed.
 H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.
 H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.
 H311 Toxic in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H318 Causes serious eye damage.
 H331 Toxic if inhaled.
 H341 Suspected of causing genetic defects.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H402 Harmful to aquatic life.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.
 Muta. Germ cell mutagenicity
 Skin Corr. Skin corrosion

This compound is sold only for research use by personnel familiar chemicals and who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and no rubbing eyes with working in the laboratory.

This solution is sold only in microliter quantities for use in life sciences research. No other use is intended. And any other use may involve substantive hazards.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish or legally valid contractual relationship. GenDEPOT LLC, shall not be held liable for any damage resulting from handling of or from with above product. The burden of safe use of this material rests entirely with the user.

Since the conditions of handling, storage and disposal of this material are beyond our control, it is the responsibility of the user to determine whether the material is fit for a particular purpose and/or suitable for the user's method of use or application, and to determine safe conditions for use of the material, and to assume full responsibility for loss, injury and expense arising out of or in connection with the use of material. NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, REGARDING THE MATERIAL DESCRIBED HEREIN SHALL BE CREATED BY OR INFERRED FROM ANY STATEMENT OR OMISSION FROM THIS MSDS.

Various government agencies and local authorities may have general or specific regulations applicable to the material which may not be covered in this MSDS. It is sole responsibility of the user to examine and confirm for its full compliance with any such regulations.

When the revision of this MSDS is received, please dispose of the old one.

Department issuing MSDS:
 GenDEPOT LLC
 Safety Department