

**MATERIAL SAFETY DATA SHEET**

IDENTITY: MagDEA RNA 100 (GC)

**1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER**

PRODUCT NAME : MagDEA RNA 100 (GC)

MANUFACTURER : Precision System Science Co.,Ltd.

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MSDS No. : MSDS-E7004-E-01

**2. HAZARDS IDENTIFICATION**

Well No.	REAGENT NAME	SINGLE/MIXTURE	GHS CLASSIFICATION			
			Class	Category	Symbol	H-Code
<b>1</b>	PK	Mixture	Not classifiable	-	-	-
<b>2</b>	Lysis Solution	Mixture	Acute toxicity (Oral) Skin corrosion/irritation Serious eye damage/eye irritation	4 2 2A		H315 H319 H332
<b>3</b>	Solution 1	Mixture	Acute toxicity (Oral) Acute toxicity, dermal Skin corrosion/irritation: Serious eye damage/eye irritation Specific target organ toxicity - single exposure Specific target organ toxicity - repeated exposure Hazardous to the aquatic environment, acute toxicity	4 3 2 2 3 2 1		H302 H311 H315 H319 H335 H373 H400
<b>4</b>	Magnetic particles	Mixture	Not classifiable	-	-	-
<b>5</b>	Solution 2	Mixture	Not classifiable	-	-	-
<b>6</b>	Empty	-	-	-	-	-
<b>7</b>	Solution 3	Mixture	Not classifiable	-	-	-
<b>8</b>	Empty	-	-	-	-	-

<b>9</b>	Empty	-	-	-	-	-
<b>10</b>	Solution 4r	Single	Not classifiable	-	-	-

**SIGNAL WORD: Danger**

**HAZARD STATEMENTS :**

- Harmful if swallowed.
- Toxic in contact with skin.
- Causes skin irritation.
- Causes serious eye irritation.
- May cause respiratory irritation.
- May cause damage to organs through prolonged or repeated exposure .
- Very toxic to aquatic life.

**PRECAUTIONARY STATEMENTS:**

[Prevention]

- Do not breathe dust/fume/gas/mist/vapours/spray.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection/face protection.

[Response]

- IF SWALLOWED: Call a POISON CENTER or doctor/physician IF you feel unwell.  
Rinse mouth.
- IF ON SKIN: Wash with plenty of soap and water.  
Take off contaminated clothing and wash before reuse.
- IF SKIN irritation occurs: Get medical advice/attention.
- IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.  
Call a POISON CENTER or doctor/physician if you feel unwell.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF eye irritation persists: Get medical advice/attention.  
Get medical advice/attention if you feel unwell.
- Collect spillage. Hazardous to the aquatic environment

[Storage]

- Store in a well-ventilated place. Keep container tightly closed.
- Store locked up.

[Disposal]

- Dispose of contents/container in accordance with the rule of the contry.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Well 1 : PK

CHEMILCAL IDENTIT	CAS No.	Content (%)	EINECS No.	TSCA (Listed or not Listed)
Trade secret	-	-	-	-

Well 2 : Lysis Solution

CHEMILCAL IDENTIT	CAS No.	Content (%)	EINECS No.	TSCA (Listed or not Listed)
Guanidine Hydrochloride	50-01-1	<60%	200-002-3	Listed

Well 3 : Solution 1

CHEMILCAL IDENTIT	CAS No.	Content (%)	EINECS No.	TSCA (Listed or not Listed)
Dodecyl sodium sulfate	151-21-3	<1%	205-778-1	Listed

Well 4 : Magnetic particles

CHEMILCAL IDENTIT	CAS No.	Content (%)	EINECS No.	TSCA (Listed or not Listed)
Trade secret	-	-	-	-

Well 5 : Solution 2

CHEMILCAL IDENTIT	CAS No.	Content (%)	EINECS No.	TSCA (Listed or not Listed)
Trade secret	-	-	-	-

Well 6 : Empty

CHEMILCAL IDENTIT	CAS No.	Content (%)	EINECS No.	TSCA (Listed or not Listed)
Empty	-	-	-	-

Well 7 : Solution 3

CHEMILCAL IDENTIT	CAS No.	Content (%)	EINECS No.	TSCA (Listed or not Listed)
Trade secret	-	-	-	-

Well 8 : Empty

CHEMILCAL IDENTIT	CAS No.	Content (%)	EINECS No.	TSCA (Listed or not Listed)
Empty	-	-	-	-

Well 9 : Empty

CHEMILCAL IDENTIT	CAS No.	Content (%)	EINECS No.	TSCA (Listed or not Listed)
Empty	-	-	-	-

## Well 10 : Solution 4r

CHEMICAL IDENTIT	CAS No.	Content (%)	EINECS No.	TSCA (Listed or not Listed)
Water	7732-18-5	100%	231-791-2	Listed

**4. FIRST AID MEASURES**

**GENERAL ADVICE :** Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

**INHALATION :** Move victim to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, administer artificial respiration. Maintain normal body temperature with a blanket. If irritation persists, transport to a hospital immediately.

**SKIN CONTACT :** Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.

**EYE CONTACT :** Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

**INGESTION :** Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Transport to a hospital immediately.

**5. FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA :**

Carbon dioxide, dry chemical powder, alcohol resistant foam, water

**FIRE & EXPLOSION HAZARDS :**

Flammable liquid. Hazardous toxic and irritating fumes or smoke may be emitted. Vapors may travel considerable distance to ignition source and flash back.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS :** Firemen should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus.

**6. ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS :** Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes.

**ENVIRONMENTAL PRECAUTIONS :** Prevent spills from entering sewers, watercourses or low areas.

**METHODS FOR CLEANING UP :** Do not touch spilled material without suitable protection (See section 8). Take up spilled material with ashes or other absorbents. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

**7. HANDLING AND STORAGE**

**PRECAUTION FOR SAFE HANDLING :** Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection away from source of heat or ignition and use non-sparking type tools.

**CONDITIONS FOR SAFE STORAGE :** Store away from sunlight in well-ventilated dry place at room temperature (preferably cool place). Keep container tightly closed.

**INCOMPATIBILITIES :** Bases, oxidizers, reducing agents

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING MEASURES :** Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

**VENTILATION :** Local Exhaust ; Necessary, Mechanical (General) ; Recommended

**INDIVIDUAL PROTECTION MEASURES ;**

Respiratory protection : Use a NIOSH/MSHA or European Standard EN149 approved respirator if the vapor concentrations exceed regulatory guidelines.

Code : E7004

MSDS No. : MSDS-E7004-E-01

Hand protection : Chemical resistant gloves  
 Eye protection : Safety glasses(goggles)  
 Skin protection : Protective clothing

**CONTROL PARAMETER :**

OSHA Final Limits : Not available  
 ACGIH TLV(s) : Not available

**9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE AND ODOUR : Suspension of blown polymer particles in aqueous solutions (Well No.4)  
 All plastic packagings contain clear, aqueous solutions (Others)

pH : 5.0-8.0

MELTING POINT : Not available

INITIAL BOILING POINT : Not available

FLASH POINT : Not available

FLAMMABILITY (solid, gas) : Not available

EXPLOSIVE LIMITS : Not available

VAPOR PRESSURE : Not available

VAPOR DENSITY : Not available

RELATIVE DENSITY : Not available

SOLUBILITY IN WATER : Refractoriness (Well No.4)  
 Miscible (others)

PARTITION COEFFICIENT : Not available-

AUTOIGNITION TEMPERATURE : Not available

DECOMPOSITION TEMPERATURE : Not available

**10. STABILITY AND REACTIVITY**

CHEMICAL STABILITY : Stable under recommended storage conditions. (Well No.2, No.3)

CONDITIONS TO AVOID : Sunlight, heat, moisture (Well No.2, No.3)

INCOMPATIBLE MATERIALS : Oxidizers, acetic anhydride, calcium oxychloride, chromium oxides,  
 alkali metal hydrides (Well No.2, No.3)

HAZARDOUS DECOMPOSITION PRODUCTS : Carbon monoxide and corrosive gas (acrolein) may be formed. (Well  
 No.2, No.3)

**11. TOXICOLOGICAL INFORMATION**

Well No.2 Lysis Solution as Guanidine hydrochloride

ACUTE TOXICITY DATA : LD50(oral,rat): 475 mg/kg(NTIS\*\* AD-A165-747)  
 LD50(oral,mouse): 571 mg/kg(ATDAE1 12, 598, 1993)  
 LD50(ip,r,mouse): 500 mg/kg(NTIS\*\* AD277-689)

IRRITATION DATA : Skin; rabbit; 500 mg/24H; Severe(NTIS\*\* AD-A166-306)  
 Eye; rabbit; 81,400 µg; Moderate(NTIS\*\* AD-A184-068)

MUTATION DATA : Mutation in microorganisms; S.cerevisiae; 4 mmol/L(BBRCA9 53, 531, 1973)

REPRODUCTIVE EFFECTS DATA : Not available

TUMORIGENIC DATA : Not available

Well No.3 Solution 1 as 95% sodium dodecyl sulfate

ACUTE TOXICITY DATA : LD50(oral,rat): 1288 mg/kg(FCTXAV 5, 763, 1967)  
 LC50(ihl,rat): 3900 mg/m<sup>3</sup>/1H(BIOFX\* 23-3/1971)

IRRITATION DATA : Eye; rabbit; 100 mg/24H; Moderate(28ZPAK -,305,72)  
 Skin; rabbit; 50 mg/24H; Severe (BIOFX\* 23-3/71)  
 Eye; human; 0.5 %/47H; Mild(JIDEAE 11, 474, 1984)

MUTATION DATA : DNA repair; E.coli; 12500 nl/well(MUREAV 158, 19, 1985)  
 DNA damage; rat; liver; 243 µmol/L(EMMUEG 24, 181, 1994)

REPRODUCTIVE EFFECTS DATA : TDLo(skin,mouse): 480 mg/kg(6-17 D preg)(TRENAF 27, 113, 1976)

TUMORIGENIC DATA : Not available

ADDITIONAL INFORMATION ;  
 NTP : Not listed  
 IARC : Not listed  
 OSHA : Not listed  
 ACGIH :Not listed

Code : E7004

MSDS No. : MSDS-E7004-E-01

**12. ECOLOGICAL INFORMATION**

ECOTOXICITY : Not available  
PERSISTENCE AND DEGRADABILITY : Not available.  
BIOACCUMULATION POTENTIAL : Not available  
MOBILITY IN SOIL : Not available  
OTHER ADVERSE EFFECTS : Not available

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**13. DISPOSAL CONSIDERATION (INCLUDING CONTAINER)**

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations ( contact country, local or state environmental agency for specific rules ).

After contents are completely removed, dispose of its container at hazardous or special waste collection point. (in accordance with local/regional/national/international regulation).

**14. TRANSPORT INFORMATION**

IATA : Not Restricted.  
MARINE POLLUTANT : No  
DOT(Department of Transportation) : Not a Hazardous Material for DOT shipping.

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**15. REGULATORY INFORMATION**

US REGULATIONS ;  
EPA : CERCLA RQ= Not listed  
EPCRA TPQ= Not listed  
OSHA : TQ= Not listed

EU REGULATIONS;

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**16. OTHER INFORMATION INCLUDING INFORMATION ON PREPARATION AND REVISION OF THE SDS**

Reference  
Siyaku.com <http://www.siyaku.com/>  
European Chemicals Bureau <http://ecb.jrc.ec.europa.eu/>  
Registry of Toxic Effects of Chemical Substances NIOSH(1985-1986)

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. This product is intended to be used by expert persons having chemical knowledge and skill, at their own discretion and risk and PSS shall not be held liable for any damage resulting from handling or from contact with the above material.