

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

1.1 Product Identifiers

Product Name: resDetect™ resDNA Sample Preparation Kit II (Magnetic Beads)
 Catalog Number: OPA-R024
 UFI: No information available.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Uses: For Research Use Only.

1.3 Details of the supplier of the safety data sheet

Switzerland:

Company:	ACROBiosystems AG	Telephone:	+41-800-040-012
Address:	Switzerland Innovation Park Basel Area AG Lichtstrasse 35 4056 Basel	Fax:	+1-888-377-6111
Internet:	www.acrobiosystems.com	Email Address:	Customerservice@acrobiosystems.com

China:	(Headquarter and Manufacturing Center)	Telephone:	+86-010-67855298
Company:	ACROBIOSYSTEMS CO., LTD	Fax:	+1-888-377-6111
Address:	FLOOR 4, BUILDING 4, NO.8 HONGDA NORTH ROAD, BDA, BEIJING, CHINA	Email Address:	Customerservice@acrobiosystems.com

USA:		Telephone:	+1-800-810-0816
Company:	Acrobiosystems Inc.	Fax:	+1-888-377-6111
Address:	1 Innovation Way, Newark, DE 19711, USA	Email Address:	Customerservice@acrobiosystems.com

1.4 Emergency Telephone Number

Emergency Tel: Switzerland: +41-800-040-012 / China: +86-010-67855298 / USA: +1-800-810-0816.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation EC Directives 67/548/EEC, 1999/45/EC, 1272/2008 [CLP], 1907/2006/EC[REACH], GHS and 29 CFR 1910.1200 [OSHA].
 Acute Toxicity - Oral - Category 4
 Skin Corrosion/Irritation - Category 1C
 Eye Damage/Irritation - Category 1
 Hazardous To The Aquatic Environment - Long-Term (Chronic) Hazard - Category 3

2.2 Label Elements

Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP]

Pictogram(s):



Signal Word: Danger

Hazard Statement(s):

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes severe skin burns and eye damage
H412	Harmful to aquatic life with long lasting effects

Precautionary Statement(s):

P260	Do not breathe gas/mist/vapour/spray.3303
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P310	Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see related instructions on the label).
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P301+P312	IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

- P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].
- P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P405 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P501 Dispose of contents/container in accordance with local/regional/national/ international regulations.

2.3 Other Hazards - None

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

Component	CAS No.	EC No.	Index No.	Classification	Weight % content (or range) 30%
Guanidiniumthio cyanate	593-84-0	209-812-1	—	H302, H312, H314, H318, H332, H412	30%

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Advice

Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.

If Inhaled

Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

In Case of Skin Contact

Take off contaminated clothing and shoes immediately. Wash off with plenty of soap and water for at least 15 minutes and consult a physician if feel uncomfortable.

In Case of Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

If Swallowed

Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

4.3 Indication of immediate medical attention and special treatment needed

Show this safety data sheet to the doctor in attendance. Treat symptomatically. Symptoms may be delayed.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media

Dry chemical, carbon dioxide or alcohol-resistant foam. Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Fire may produce irritating, poisonous or corrosive gases. Development of hazardous combustion gases or vapor possible in the event of fire. May expansion or decompose explosively when heated or involved in fire.

5.3 Precautions for fire-fighters

As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear. Fight fire from a safe distance, with adequate cover. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

6.2 Environmental precautions

Keep away from drains.

6.3 Methods and materials for containment and cleaning up

Do not touch or cross spills. Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

6.4 Reference to other sections

For required personal protection equipment see section 8. For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling is performed in a well ventilated place. Avoid contact with skin and eyes. Keep away from heat/sparks/open flames/hot surfaces. Wash hands and face after using of the substances. Replace the contaminated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool, well-ventilated area. Keep away from heat/sparks/open flames/hot surfaces. Keep container tightly sealed until ready for use. Store away from incompatible materials and foodstuff containers.

7.3 Specific end use(s)

In addition to use mentioned in the Section 1.2, unforeseen other specific end uses.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values and biological limit values.

Derived No effect level (DNEL) & Predicted No Effect Concentration (PNEC)

No data available.

8.2 Exposure controls

Appropriate Engineering Controls

Use with adequate ventilation including local extraction. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection Equipment

Eye / Face Protection

Use appropriate safety glasses.

Skin Protection

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

Body Protection

Wear appropriate protective clothing.

Respiratory Protection

If risk assessment indicates necessary, use a suitable respirator.

Environment exposure controls

No data available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Lyophilized white powder or clear liquid.	Vapor Pressure	No data available.
Odor	Little to none.	Vapor Density	No data available.
Odor Threshold	No data available.	Relative Density	No data available.
pH	No data available.	Solubility(ies)	Soluble
Melting / Freezing Point	No data available.	Partition Coefficient	No data available.
Boiling Point / Range	No data available.	Autoignition Temperature	No data available.
Flash Point	No data available.	Decomposition Temperature	No data available.
Evaporation Rate	No data available.	Viscosity	No data available.
Flammability (Solid, Gas)	No data available.	Explosive Properties	No data available.
Upper / Lower Flammability or Explosive Limits	No data available.	Oxidizing Properties	No data available.

9.2 Other safety information

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Contact with incompatible substances can cause decomposition or other chemical reactions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen.

10.4 Conditions to avoid

Incompatible materials, heat, flame and spark.

10.5 Incompatible materials

Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.

10.6 Hazardous decomposition products

Under recommended conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

No information available

Skin Corrosion / Irritation

Causes severe skin burns and eye damage (Category 1C)

Serious Eye Damage / Irritation

Causes serious eye damage (Category 1)

Respiratory or Skin Sensitization

Classified based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Classified based on available data, the classification criteria are not met.

Carcinogenicity

Classified based on available data, the classification criteria are not met.

Reproductive Toxicity

Classified based on available data, the classification criteria are not met.

Specific Target Organ Toxicity-Single Exposure

Classified based on available data, the classification criteria are not met.

Specific Target Organ Toxicity-Repeated Exposure

Classified based on available data, the classification criteria are not met.

Aspiration Hazard

Classified based on available data, the classification criteria are not met.

Symptoms / Routes of Exposure

Inhalation: Harmful if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Material is extremely destructive to the tissue, mucous membranes and upper respiratory tract.

Ingestion: Harmful if swallowed. Corrosive to mouth, throat and stomach. Causes burns.

Skin: Corrosive to the skin / cause burns.

Eyes: Causes serious eye irritation / eye damage.

Delayed / Immediate Effects: Repeated skin contact with this product may lead to dermatitis while repeated inhalation may cause bronchitis, conjunctivitis, respiratory infections, emphysema and digestive disturbances.

11.2 Information on other hazards

Endocrine disrupting properties

No data available.

Other information

None

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Acute aquatic toxicity

Component	Fish	Crustaceans	Algae
Guanidinium thiocyanate	LC50: 89.1 mg/L (96h) (Fish)	EC50: 42.4 mg/L (48h) (Crustaceans)	ErC50: 130 mg/L (72h) (Algae)

Chronic aquatic toxicity

No data available.

12.2 Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Guanidinium thiocyanate	Low	Low

12.3 Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Guanidinium thiocyanate	Low	Log Kow=0.5392

12.4 Mobility in soil

Component	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Guanidinium thiocyanate	Low	14.3

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 Additional information

None

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

Contaminated Packaging

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

14. TRANSPORT INFORMATION

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.

14.1 UN-Number

1759

14.2 UN proper shipping name

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

14.3 Transport hazard class(es)

8

14.4 Packaging group

No information available.

14.5 Marine Pollutant

No

14.6 Special precautions for users

No information available.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010, (EU) 2017/542 and (EU) 2020/878.

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture

Component	SVHC	EC inventory	TSCA	SARA 313	SARA 311/312	CERCLA Reportable Quantity	California Proposition 65	KECI	AIC	ENCS
Guanidinium thiocyanate	×	√	√	√	×	√	×	√	√	√

- [SVHC] Candidate list of Substances of Very High Concern for authorization under EU REACH regulation
- [EC inventory] European Inventory of Existing Commercial Chemical Substances
- [TSCA] United States Toxic Substances Control Act Inventory
- [SARA 313] Superfund Amendments and Reauthorization Act: Part 313
- [SARA 311/312] Superfund Amendments and Reauthorization Act: Part 311/312
- [CERCLA Reportable Quantity] Comprehensive Environmental Response, Compensation, and Liability Act
- [California Proposition 65] Safe Drinking Water and Toxic Enforcement Act of 1986
- [KECI] Korea Existing Chemicals Inventory
- [AIC] Australian. Inventory of Industrial Chemical (AIC)

[ENCS]

Japan Inventory of Existing & New Chemical Substances

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been made for this product.

16. OTHER INFORMATION

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.

End of safety data sheet.