

MATERIAL SAFETY DATA SHEET

**VIVANTIS TECHNOLOGIES SDN BHD
REVONGEN CORPORATION CENTER**

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SECTION 1: CHEMICAL IDENTIFICATION

Catalogue Number: PR0615-500g; PR0615-1kg

Product Name: Urea

Intended Use:

For research use only. Not for use in diagnostic procedures.

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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	EC No.	%
Urea	57-13-6	200-315-5	95-100

SECTION 3: HAZARDS IDENTIFICATION

GHS Classification

Skin irritant- Category 2

Eye irritant- Category 2

GHS labels elements, including precautionary statements



Signal word: Warning

Hazard statements

- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H335 May cause respiratory irritation

Precautionary statements

- P280 Wear protective gloves/protective clothing/ eye protection/ face protection
- 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
- P305+P351+P338 Rinse cautiously with water for several minutes if contact with eyes. Remove contact lenses, if present and easy to do, and continue rinsing.

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SECTION 4: FIRST-AID MEASURES

In case of eye contact, wash copiously with water for up to 15 minutes. Seek medical assistance if there is persistent irritation.

In case of skin contact, wash with soap and excess water. Seek medical assistance if irritation is persistent.

In case of inhalation, remove to fresh air. If not breathing give artificial respiration. Seek medical assistance if there are problems.

In case of ingestion, wash out mouth with water provided the person is conscious. Never give anything by mouth to an unconscious person. Seek medical assistance if there is abdominal discomfort.

SECTION 5: FIRE FIGHTING MEASURES

Not flammable or combustible.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Use water spray, dry chemical, regular foam or carbon dioxide.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH and full protective gear.

Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides

Flash point: Not determined.

Explosion data – sensitivity to mechanical impact: Not sensitive.

Explosion data – sensitivity to static discharge: Not sensitive.

SECTION 6: ACCIDENTAL RELEASE MEASURES

For personal protection, use personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

For environmental precautions, prevent further leakage or spillage if safe to do so for containment.

For cleaning up, sweep up and shovel. Pick up and transfer to suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handle in accordance with good industrial hygiene and safety practice.

Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible with strong oxidizing agents.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection	Where exposure limits are exceeded, wear respiratory protection. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Positive pressure-supplied air respirators may be required for high airborne contamination concentrations.
Eye protection	Use safety glasses with side-shields.
Skin and body protection	Impervious clothing. Wear protection gloves/clothing.

Use engineering measures such as showers, eyewash stations and ventilation systems.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White to off-white
Physical state:	Powder
Odor:	No information available
Odor threshold:	No information available
pH:	7.5 – 9.5 (10% aqueous solution)
Freezing Point:	No information available
Melting Point:	No data available
Initial Boiling Point:	No information available
Boiling Point:	No data available
Flash Point:	Not determined
Auto-ignition temperature:	No data available
Decomposition temperature:	No information available
Upper flammability limits in air:	No data available
Lower flammability limits in air:	No data available
Explosive Properties:	No information available
Oxidizing properties:	No information available
Solubility:	Soluble
Partition coefficient (n-octanol/water):	No data available
MMHG@37.8°C:	No data available
Vapor density:	No data available
Evaporation rate:	No data available
Specific gravity:	No data available
Viscosity:	No information available

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SECTION 10: STABILITY AND REACTIVITY

Stable under recommended storage conditions.

Materials to avoid: Strong oxidizing agents
Hazardous decomposition products: Carbon oxides, nitrogen oxides
Hazardous polymerization: Do not occur
Condition to avoid: None known based on information supplied

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50: Rat – 8471 mg/kg

Chronic toxicity

This product has no known chronic effect based on information supplied.

This product might have target organ effects towards eyes, skin, and respiratory system.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

This product is harmful to aquatic organisms.

LC50: Fish – *Poecilia reticulata* – 16200-18300 mg/L – 96hrs

EC50: *Daphnia magna* (water flea) – >10000 mg/L – 24hrs

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose waste material in accordance with all federal, state and local environmental regulation.

Observe all federal, state and local environmental regulations.

SECTION 14: TRANSPORT INFORMATION

DOT (US)

Not dangerous products.

IATA

Not dangerous products.

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SECTION 15: REGULATORY INFORMATION

International inventories

TSCA	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Do not comply
PICCS	Complies
AICS	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulation, Part 372.

SARA 311/312 Hazards Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

U.S. State Regulations

California Prop. 65 Components

This product does not contain any Proposition 65 chemicals.

International Regulations

Mexico – Grade

No information available

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WHMIS Hazard Class
D2B Toxic materials



SECTION 16: OTHER INFORMATION

The information contained in this MSDS relates only to the material(s) designed and does not relate to use(s) in combination with any other material, process(es) and /or chemical reaction(s). Vivantis Technologies Sdn. Bhd. provides this information in good faith, from sources believed to be accurate; however, Vivantis assumes no liability for its accuracy or completeness, and thus shall not be held liable for any damage resulting from handling or from contact with the above product.

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