

SAFETY DATA SHEET (SDS)


Urease

Issue date: 20-08-2020

Section 1: Product Identifier and Chemical Identity

Product Identifier	
Product Name:	Urease
Product Codes:	MC23.92S
Other means of identification:	
Chemical formula, alternative names:	P
Recommended use of the chemical and restrictions on use	
Recommended Use:	An enzyme to break down urea
Suppliers name, address and phone number	
Suppliers Name:	Southern Biological
Suppliers ABN:	94 630 703 810
Suppliers Address:	1/44 Rushdale Street Knoxfield Victoria 3180 Australia
Suppliers Phone No.:	1300 138 561
Suppliers Fax No.:	+613 9753 3896
Emergency Phone number (BH)	1300 138 561

Section 2: Hazard Identification

Classification of the Hazardous Chemical	
Hazard Category	Skin corrosion/irritation, Category 2, Eye Irritation 2: Serious sys damage / eye irritation Category 2, Respiratory Sensitisation 1: Sensitisation –Respiratory Category 1, Specific target organ toxicity – Single exposure Category 3
Label elements	
Hazard Pictograms:	
Signal Word:	Danger
Hazard Statements:	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Precautionary Statements:	Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not ingest.
Other Hazards	
Results of PBT and vPvB assessment:	PBT: Not applicable VPvB: Not applicable

Section 3: Composition/information on ingredients

Ingredients			
Name	CAS	Proportion	Hazard Class
Urease	9002-13-5	10-95%	Skin corrosion/irritation, Category 2, Eye Irritation 2: Serious sys damage / eye irritation Category 2, Respiratory Sensitisation 1: Sensitisation –Respiratory Category 1, Specific target organ toxicity –Single exposure Category 3
Ingredients determined not to be hazardous		balance	None

Section 4: First Aid Measures

General Information	
After Inhalation:	Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms, call a doctor.
After skin contact:	Wash with water and soap and rinse thoroughly. If skin irritation occurs, seek medical advice.
After eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
After swallowing:	Do not induce vomiting. Wash out mouth with water. Obtain emergency medical attention. Call a POISON CENTRE or doctor if you feel unwell.
Information for doctor:	
Most important symptoms and effects both acute and delayed:	Treat symptomatically.
Indications of any immediate medical attention and special treatment needed	No further relevant information available.

Section 5: Firefighting measures

Extinguishing media	
Suitable extinguishing agents:	CO ₂ , powder or water spray. Fight larger fires with water spray or alcohol resistant foam
Special hazards arising for the substance or mixture:	No further relevant information available.
Advice for firefighters	

Protective equipment:	Do not enter the fire area without proper protective equipment including respiratory equipment.
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Section 6: Accidental release measures

General Information	
Personal precautions, protective equipment and emergency procedures:	No health effects expected from the clean up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this SDS. Prevent the spread of any spill to minimise harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum.
Environmental precautions:	Prevent entry to sewers and public waters. Avoid release to the environment. Notify authorities if spill to sewers or public waters.
Methods and material for containment and cleaning up:	Dispose of contaminating material as waste according to item 13. Ensure adequate ventilation. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.
Reference to other sections:	See Section 7 for information on safe handling. See Section 8 for information on protective equipment. See Section 13 for disposal information.

Section 7: Handling and Storage

General Information	
Precautions for safe handling:	Ensure good ventilation/exhaustion at the workplace. Do not eat drink or smoke when using this product. Wash contaminated clothing before reuse.
Information about fire – and explosion protection:	No special measures required.
Conditions for safe storage, including any incompatibilities.	
Storage:	Store at 4-6°C out of direct sunlight. Keep containers closed when not in use. Store in suitably labelled containers.
Requirements to be met by storerooms and receptacles:	No special requirements.
Information about storage in one common storage facility:	Not required.
Further information about storage conditions:	Keep container tightly sealed. Keep out of direct sunlight.
Specific end use(s):	No further relevant information available.

Section 8: Exposure controls/personal protection.

General information	
Additional information about design of technical facilities:	No further data: see section 7
Control parameters:	
Ingredients with limit values that require monitoring at the workplace: none	

Additional information	The lists valid during the making were used as basis.
Exposure Controls:	
General protective and hygienic measures:	Use only in systems, processes and procedures in which effective ventilation has been provided. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with eyes.
Respiratory protection:	In case of significant exposure use respiratory filter device. Not normally required.
Clothing / Foot-wear and equipment	No special requirements.
Protection of hands:	PVC or rubber gloves
Eye protection:	Tightly sealed goggles
Skin protection:	Laboratory Coat

Section 9: Physical and chemical properties

Appearance:	
Form:	Powder
Colour:	White
Odour:	Not determined
Odour Threshold:	Not determined
pH value:	Not determined
Change in Condition:	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Flash point:	Not determined
Flammability (solid / gaseous)	May be combustible at high temperatures.
Ignition Temperature	
Decomposition temperature:	Not determined
Self-igniting:	Not determined
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits	
Lower:	Not determined
Upper:	Not determined
Vapour pressure:	Not determined
Density:	Not determined
General Info	
Relative density:	Not determined

Vapour density:	Not determined
Evaporation rate:	Not determined
Solubility in/ Miscibility with water:	Soluble
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	Not determined
Other information:	Not determined

Section 10: Stability and reactivity

Reactivity	
General	No further relevant information available.
Chemical Stability	
Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
Possibility of hazardous reactions:	No dangerous reactions known.
Conditions to avoid:	No further relevant information available.
Incompatible materials:	No further relevant information available.
Hazardous decomposition products:	None known

Section 11: Toxicological information

Information on toxicological effects	
General	Acute toxicity
Primary irritant effect:	
Inhalation:	Sensitisation possible through inhalation.
Skin contact:	Irritant to skin and mucous membranes.
Eye exposure:	Irritating effect.
Ingestion:	Not classified
Chronic Toxicity:	
General	Not classified

Section 12. Ecological information

Toxicity	
Aquatic toxicity:	No further relevant information available.

Persistence and degradability:	No further relevant information available.
Behaviour in environmental systems	
Bio-accumulative potential:	No further relevant information available.
Mobility in soil:	No further relevant information available.
Additional ecological information	
Results of PBT and vPvB assessment	PBT: Not applicable vPvB: Not applicable
Other adverse effects:	No further relevant information available.

Section 13. Ecological information

Waste treatment methods	
Recommendation	Do not dispose of raw product with household garbage. Do not allow raw product to reach sewerage system.
Uncleaned packaging:	
Recommendation:	Small volumes of enzymes may be deactivated by treating with a 5% solution of bleach for 12-16 hours then further diluted with water before disposal in domestic/trade waste.
Recommended cleansing agents:	Water, if necessary, together with cleansing agents.

Section 14. Transport information

General	Not listed as a hazardous material.
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Section 15. Regulatory Information

Safety health and environmental regulations/legislation specific for the substance or mixture	
Australian Inventory of Chemical Substances:	Substances are listed.
Standard for the Uniform Scheduling of Medicines and Poisons	S6
GHS label elements	None
Chemical safety assessment:	A Chemical Safety Assessment has not been carried out.

Section 16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and Acronyms

IARC: International Agency for Research on Cancer

CAS: Chemical Abstracts Service

PBT: Persistent Bio-accumulative and Toxic

vPvT: very Persistent and very Toxic