

Kit SDS Cover Sheet DPSCGM™

Version 2.0

Revision Date 30.06.2021

Print Date 26.04.2024

Product Information

Commercial
Product Name: Poietics®Product name: DPSCGM™Material number: PT-4516

Components

Fetal Bovine Serum	SDS attached
L-GLUTAMINE	SDS attached
GA-1000	SDS attached
Ascorbic Acid Solution	SDS attached

according to Work Health and Safety Regulations 2011



GA-1000

Version 2.0	Revision Date 30.06.2021	Print Date 26.04.2024
SECTION 1. PRODUCT AND COMPAN	IY IDENTIFICATION	
Product name	: GA-1000	
Manufacturer or supplier's detail	S	
Company	: Capsugel Australia Pty Ltd. Suite 610, 12 Century Circuit, Norwest NSW 2153, Australia	
	Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland	
Telephone Telefax E-mail address	: Tel +61 3 9550 0883 : Tel +61 3 9550 0890 : sds@lonza.com	
Emergency telephone number	: +41 61 313 94 94 (24h)	
Recommended use of the chemi	cal and restrictions on use	
Recommended use	: Scientific research and development	

46041 1 / 00000010126	ç	SDK AU/EN Page	2
		P302 + P352 IF ON SKIN: Wash with plenty of water.	
		the workplace. P280 Wear protective gloves. P285 In case of inadequate ventilation wear respiratory protection.	f
Precautionary statements	:	Prevention:	
Hazard statements	:	H317 May cause an allergic skin reaction. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Signal word	:	Danger	
GHS label elements Hazard pictograms	:		
Skin sensitisation	:	Category 1	
GHS Classification Respiratory sensitisation	:	Category 1	
	Respiratory sensitisation Skin sensitisation GHS label elements Hazard pictograms Signal word Hazard statements Precautionary statements	Respiratory sensitisation:Skin sensitisation:GHS label elements:Hazard pictograms:Signal word:Hazard statements:Precautionary statements:	Respiratory sensitisation: Category 1Skin sensitisation: Category 1GHS label elementsHazard pictograms: $\overbrace{\bigcirc}$ Signal word: DangerHazard statements: H317 May cause an allergic skin reaction. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.Precautionary statements: Prevention: P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P272 Contaminated work clothing should not be allowed out on the workplace. P280 Wear protective gloves. P285 In case of inadequate ventilation wear respiratory protection. Response: P302 + P352 IF ON SKIN: Wash with plenty of water.

according to Work Health and Safety Regulations 2011

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	P333 + P313 If skin irritation or ras advice/ attention. P342 + P311 If experiencing respir POISON CENTER/ doctor. P363 Wash contaminated clothing	atory symptoms: Call a
	Disposal:	
	P501 Dispose of contents/ containe waste disposal facility.	er to a local hazardous

Other hazards which do not result in classification

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	: Mixture		
Hazardous components			
Chemical name	CAS-No.	Concentration (% w/w)	
Gentamicin, sulfate (salt)	1405-41-0	>= 3 - < 5	

SECTION 4. FIRST AID MEASURES

General advice	:	When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	Move to fresh air. Call a physician immediately. If breathing is irregular or stopped, administer artificial respiration.
In case of skin contact	:	After contact with skin, wash immediately with plenty of soap and water. Wash clothing before reuse. Get medical attention if irritation develops and persists.
In case of eye contact	:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If eye irritation persists, consult a specialist.
If swallowed	:	Immediately give plenty of water (if possible charcoal slurry). Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Take victim immediately to hospital.
Most important symptoms and effects, both acute and delayed	:	Allergic appearance sensitising effects
Notes to physician	:	Treat symptomatically.

according to Work Health and Safety Regulations 2011



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SECTION 5. FIREFIGHTING MEASURES	6		
Suitable extinguishing media	:	Not combustible. Use extinguishing measures that are appro circumstances and the surrounding enviror	•
Hazardous combustion products	:	No hazardous combustion products are kn	own
Specific extinguishing methods	:	Use water spray to cool unopened contained	ers.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained bre	eathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use respirator when performing operations involving potential exposure to vapour of the product. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	:	No special environmental precautions required.
Methods and materials for containment and cleaning up		Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and : explosion	Stable under normal conditions.
Advice on safe handling	 In case of insufficient ventilation, wear suitable respiratory equipment. Avoid exposure - obtain special instructions before use. Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin and eyes.
Hygiene measures	 DANGER! Avoid contact with the skin and the eyes. Avoid breathing dust or spray mist. Wash hands before breaks and immediately after handling the product.
Conditions for safe storage	Keep frozen or refrigerated.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

according to Work Health and Safety Regulations 2011



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Components with workplace control parameters				
Contains no substances with occup	ational exposure limit values.			
Engineering measures	: Provide sufficient air exchange ar	nd/or exhaust in work rooms.		
Personal protective equipment				
Respiratory protection	: In case of mist, spray or aerosol e personal respiratory protection an	•		
Hand protection Material Rate of permeability	: Nitrile rubber : > 480 min			
Eye protection	: Safety glasses Safety goggles			
Skin and body protection	: Choose body protection according concentration of the dangerous su Complete suit protecting against of	ubstance at the work place.		

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Aqueous solution
Colour	:	light yellow
Odour	:	odourless
Odour Threshold	:	no data available
рН	:	no data available
Melting point/freezing point	:	0°C
Initial boiling point and boiling range	:	no data available
Flash point	:	Does not sustain combustion.
Evaporation rate	:	no data available
Flammability (solid, gas)	:	no data available
Flammability (liquids)	:	no data available
Upper explosion limit / upper	:	no data available
flammability limit Lower explosion limit / Lower flammability limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	no data available

according to Work Health and Safety Regulations 2011



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Relative density	: no data available		
Water solubility	: soluble		
Partition coefficient: n-octanol/water	: no data available		
Auto-ignition temperature	: no data available		
Decomposition temperature	: no data available		
Viscosity, dynamic	: no data available		
Viscosity, kinematic	: no data available		

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Stable under normal conditions.
Conditions to avoid	:	None known.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	No decomposition if stored normally.

SECTION 11. TOXICOLOGICAL INFORMATION

Further information

Remarks: No data is available on the product itself.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity Toxicity to fish	: Remarks: no data available
Persistence and degradability Biodegradability	: Result: no data available
Bioaccumulative potential Bioaccumulation	: Remarks: no data available
Mobility in soil	SDK ALL/EN

according to Work Health and Safety Regulations 2011



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Distribution among environmental compartments	: Remarks: no data available			
Other adverse effects Additional ecological information	: No data is available on the product itself.			
SECTION 13. DISPOSAL CONSIDERATIONS				
Disposal methods				

Disposal methods		
Waste from residues	:	Dispose of in accordance with local regulations.
Contaminated packaging	:	Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

Proper shipping name

Transport hazard class

Environmental hazards

Packing group

IAT	Ά
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Not dangerous goods

Not dangerous goods

UN number Proper shipping name Transport hazard class Packing group Environmental bazarda	 Not applicable Not applicable Not applicable Not applicable
Environmental hazards	: no

IMDG

ADR

UN number Proper shipping name Transport hazard class Packing group Environmental hazards	 Not applicable Not applicable Not applicable Not applicable Not applicable Marine pollutant: no
	Not dangerous goods
UN number	: Not applicable

	Not applicable
:	Not applicable
:	Not applicable
:	Not applicable
:	no

according to Work Health and Safety Regulations 2011



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RID	: Not dangerous goods	
UN number Proper shipping name Transport hazard class Packing group Environmental hazards	 Not applicable Not applicable Not applicable Not applicable no 	
Special precautions for user	: none	
Transport in bulk according to Annex II of MARPOL 73/78 and t IBC Code	: Not applicable the	

SECTION 15. REGULATORY INFORMATION

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

Standard for the Uniform Scheduling of Medicines and Poisons Not applicable

SECTION 16. OTHER INFORMATION

Revision Date : 30.06.2021

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant: DIN - Standard of the German Institute for Standardisation: DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS -Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL -Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT -Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical

according to Work Health and Safety Regulations 2011



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Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System Date format : dd.mm.yyyy

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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according to Work Health and Safety Regulations 2011



Fetal Bovine Serum

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SECTION 1. PRODUCT AND COMPANY	(IDENTIFICATION	
Product name	: Fetal Bovine Serum	
Manufacturer or supplier's details		
Company	 Capsugel Australia Pty Ltd. Suite 610, 12 Century Circuit, Norwest NSW 2153, Australia Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland 	
Telephone Telefax E-mail address	: Tel +61 3 9550 0883 : Tel +61 3 9550 0890 : sds@lonza.com	
Emergency telephone number	: +41 61 313 94 94 (24h)	
Recommended use of the chemical and restrictions on use		
Recommended use	: Scientific research and development	

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Not a hazardous substance or mixture.
GHS label elements
Not a hazardous substance or mixture.
Other hazards which do not result in classification

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture Hazardous components No hazardous ingredients

SECTION 4. FIRST AID MEASURES

If inhaled	: No special precautions required.	
In case of skin contact	: Wash with water and soap as a precaution. If skin irritation persists, call a physician.	
In case of eye contact	: Immediately flush eye(s) with plenty of water. If eye irritation persists, consult a specialist.	
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Fetal Bovine Serum

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If swallowed	: Immediately give large quantities of water to drink. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.		
Most important symptoms and effects, both acute and delayed	: No information available.		
Notes to physician	: No information available.		

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Water spray Dry powder Foam	
Hazardous combustion products	: No hazardous combustion products are known	
Specific extinguishing methods	: Use water spray to cool unopened containers.	
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus.	

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment.
Environmental precautions	: Prevent product from entering drains.
Methods and materials for containment and cleaning up	: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	No special precautions required.
Advice on safe handling	:	No special precautions required.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice.
Conditions for safe storage	:	Keep tightly closed.
		Store in cool place.

according to Work Health and Safety Regulations 2011



Fetal Bovine Serum

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SECTION 8. EXPOSURE CONTRO	LS/PERSONAL PROTECTION	
Components with workplace Contains no substances with oc	control parameters	
Engineering measures	: Avoid splashes.	
Personal protective equipmer Respiratory protection	nt : No personal respiratory protective of required.	equipment normally
Hand protection Material Rate of permeability	Nitrile rubber> 480 min	
Eye protection	: Tightly fitting safety goggles	
Skin and body protection	: Choose body protection according concentration of the dangerous sub No special protective equipment re	stance at the work place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

	Appearance	:	Aqueous solution
	Colour	:	brown
	Odour	:	no data available
	Odour Threshold	:	no data available
	рН	:	6,8 - 8,3
	Melting point/freezing point	:	no data available
	Initial boiling point and boiling range	:	no data available
	Flash point	:	no data available
	Evaporation rate	:	no data available
	Flammability (solid, gas)	:	no data available
	Flammability (liquids)	:	no data available
	Upper explosion limit / upper flammability limit	:	no data available
	Lower explosion limit / Lower	:	no data available
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Fetal Bovine Serum

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flammability limit			
Vapour pressure	:	no data available	
Relative vapour density	:	no data available	
Relative density	:	no data available	
Density	:	no data available	
Water solubility	:	no data available	
Partition coefficient: n-octanol/water	:	no data available	
Auto-ignition temperature	:	no data available	
Decomposition temperature	:	no data available	
Viscosity, dynamic	:	no data available	
Viscosity, kinematic	:	no data available	

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Stable under normal conditions.
Conditions to avoid	:	no data available
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	No decomposition if stored normally.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity	
Acute oral toxicity	: Remarks: no data available
Acute inhalation toxicity	: Remarks: no data available
Acute dermal toxicity	: Remarks: no data available

Skin corrosion/irritation

Remarks: no data available

Serious eye damage/eye irritation

according to Work Health and Safety Regulations 2011



Fetal Bovine Serum

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Remarks: no data available		
Respiratory or skin sensitisation		
Remarks: no data available		
Germ cell mutagenicity		
Genotoxicity in vitro	: Remarks: no data available	
Carcinogenicity		
Remarks: no data available		
Reproductive toxicity		
Effects on fertility	: Remarks: no data available	
STOT - single exposure		
Remarks: no data available		
STOT - repeated exposure		
Remarks: no data available		
Further information		
Remarks: No data is available on the	e product itself.	
ECTION 12. ECOLOGICAL INFORMA	ΤΙΟΝ	
Ecotoxicity		
Toxicity to fish	: Remarks: no data available	
Persistence and degradability		
Biodegradability	: Result: no data available	
Bioaccumulative potential		
Bioaccumulation	: Remarks: no data available	
Mobility in soil		
Distribution among environmental compartments	: Remarks: no data available	
Other adverse effects		
Additional ecological information	: no data available	

SECTION 13. DISPOSAL CONSIDERATIONS

according to Work Health and Safety Regulations 2011



Fetal Bovine Serum

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Disposal methods Waste from residues	: Dispose of in accordance with local r	egulations.
SECTION 14. TRANSPORT INFO	RMATION	
ΙΑΤΑ	Not dangerous goods	
UN number	: Not applicable	

	Proper shipping name Transport hazard class Packing group Environmental hazards	:	Not applicable Not applicable Not applicable no
IMDG			Not dangerous goods
	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	::	Not applicable Not applicable Not applicable Not applicable Marine pollutant: no
ADR			Not dangerous goods
	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	: : : : : : : : : : : : : : : : : : : :	Not applicable Not applicable Not applicable Not applicable no
RID		•	Not dangerous goods
	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	:	Not applicable Not applicable Not applicable Not applicable no
	Special precautions for user	:	none
	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15. REGULATORY INFORMATION

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

Standard for the Uniform Scheduling of Medicines and Poisons Not applicable

according to Work Health and Safety Regulations 2011



Fetal Bovine Serum

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SECTION 16. OTHER INFORMATION

Revision Date : 30.06.2021

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS -Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL -Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT -Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System Date format : dd.mm.yyyy

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according to Work Health and Safety Regulations 2011

L-GLUTAMINE

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION						
Product name :	L-GLUTAMINE					
Manufacturer or supplier's details						
Company	: Capsugel Australia Pty Ltd. Suite 610, 12 Century Circuit, Norwest NSW 2153, Australia					
	Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland					
Telephone	: Tel +61 3 9550 0883					
Telefax	: Tel +61 3 9550 0890					
E-mail address	: sds@lonza.com					
Emergency telephone number	: +41 61 313 94 94 (24h)					
Recommended use of the chemical	and restrictions on use					
Recommended use	: Scientific research and development					

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification Not a hazardous substance or mixture. **GHS** label elements Not a hazardous substance or mixture.

Other hazards which do not result in classification

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture Hazardous components No hazardous ingredients

SECTION 4. FIRST AID MEASURES

If inhaled	: No special precautions required.	
In case of skin contact	: Wash with water and soap as a precaution. If skin irritation persists, call a physician.	
In case of eye contact	: Immediately flush eye(s) with plenty of water. If eye irritation persists, consult a specialist.	
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Lonza

according to Work Health and Safety Regulations 2011



L-GLUTAMINE

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If swallowed	: Immediately give large quantities of Do not induce vomiting without med Never give anything by mouth to an	ical advice.
Most important symptoms and effects, both acute and delayed	: No information available.	
Notes to physician	: No information available.	

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Water spray Dry powder Foam	
Hazardous combustion products	: Nitrogen oxides (NOx) Carbon oxides (Cox)	
Specific extinguishing methods	: Use water spray to cool unopened containers.	
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus	s.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment.
Environmental precautions	: Prevent product from entering drains.
Methods and materials for containment and cleaning up	: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Take precautionary measures against static discharges.
Advice on safe handling	:	No special precautions required.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice.
Conditions for safe storage	:	No special storage conditions required.

according to Work Health and Safety Regulations 2011



L-GLUTAMINE

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SECTION 8. EXPOSURE CONTRO	LS/PERSONAL PROTECTION	
Components with workplace	control parameters	
Contains no substances with or	ccupational exposure limit values.	
Engineering measures	: Avoid splashes.	
Personal protective equipme	nt	
Respiratory protection	: No personal respiratory protective or required.	equipment normally
Hand protection Material Rate of permeability	: Nitrile rubber : > 480 min	
Eye protection	: Safety glasses	
Skin and body protection	: Choose body protection according concentration of the dangerous sub No special protective equipment re	ostance at the work place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

	Appearance	:	Aqueous solution
	Colour	:	no data available
	Odour	:	no data available
	Odour Threshold	:	no data available
	рН	:	no data available
	Melting point/freezing point	:	no data available
	Initial boiling point and boiling range	:	no data available
	Flash point	:	no data available
	Evaporation rate	:	no data available
	Flammability (solid, gas)	:	no data available
	Flammability (liquids)	:	no data available
	Upper explosion limit / upper flammability limit	:	no data available
	Lower explosion limit / Lower	:	no data available
f	/ 00000028037		

according to Work Health and Safety Regulations 2011



L-GLUTAMINE

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flammability limit		
Vapour pressure	: no data available	
Relative vapour density	: no data available	
Relative density	: no data available	
Density	: no data available	
Water solubility	: no data available	
Partition coefficient: n-octanol/water	: no data available	
Auto-ignition temperature	: no data available	
Decomposition temperature	: no data available	
Viscosity, dynamic	: no data available	
Viscosity, kinematic	: no data available	

SECTION 10. STABILITY AND REACTIVITY

:	Stable under recommended storage conditions.
:	Stable under normal conditions.
:	Stable under normal conditions.
:	no data available
:	Strong oxidizing agents
:	No decomposition if stored normally.
	· : :

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity	
Acute oral toxicity	: Remarks: no data available
Acute inhalation toxicity	: Remarks: no data available
Acute dermal toxicity	: Remarks: no data available

Skin corrosion/irritation

Remarks: no data available

Serious eye damage/eye irritation

according to Work Health and Safety Regulations 2011

L-GLUTAMINE

	Print Date 26.04.2024
o data available	
o data available	
o data available	
ata available	
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Other adverse effectsAdditional ecological information: no data available

SECTION 13. DISPOSAL CONSIDERATIONS



according to Work Health and Safety Regulations 2011

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L-GLUTAMINE

/ersion	1 2.0	Revision Date 30.06.2021	Print Date 26.04.202
Di	sposal methods		
Wa	aste from residues :	Dispose of in accordance with local re	egulations.
SECTIO	ON 14. TRANSPORT INFORMATION	I	
ΙΑΤΑ		Not dangerous goods	
	UN number	: Not applicable	
	Proper shipping name	: Not applicable	
	Transport hazard class	: Not applicable	
	Packing group	: Not applicable	
	Environmental hazards	: no	
IMDG		Not dangerous goods	
	UN number	: Not applicable	
	Proper shipping name	: Not applicable	
	Transport hazard class	: Not applicable	
	Packing group	: Not applicable	
	Environmental hazards	: Marine pollutant: no	
ADR		: Not dangerous goods	
	UN number	: Not applicable	
	Proper shipping name	: Not applicable	
	Transport hazard class	: Not applicable	
	Packing group	: Not applicable	
	Environmental hazards	: no	
RID		: Not dangerous goods	
	UN number	: Not applicable	
	Proper shipping name	: Not applicable	
	Transport hazard class	: Not applicable	
	Packing group Environmental hazards	: Not applicable : no	
	Special precautions for user	: none	
	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	: Not applicable e	

SECTION 15. REGULATORY INFORMATION

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

Standard for the Uniform Scheduling of Medicines and Poisons Not applicable

according to Work Health and Safety Regulations 2011

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SECTION 16. OTHER INFORMATION

Revision Date : 30.06.2021

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS -Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL -Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT -Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System Date format : dd.mm.yyyy

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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according to Work Health and Safety Regulations 2011



Ascorbic Acid Solution

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SECTION 1. PRODUCT AND COMPANY	(IDENTIFICATION	
Product name	: Ascorbic Acid Solution	
Manufacturer or supplier's details		
Company	 Capsugel Australia Pty Ltd. Suite 610, 12 Century Circuit, Norwest NSW 2153, Australia Lonza Ltd Muenchensteinerstrasse 38 CH-4002 Basel, Switzerland 	
Telephone Telefax E-mail address	 Tel +61 3 9550 0883 Tel +61 3 9550 0890 sds@lonza.com 	
Emergency telephone number	: +41 61 313 94 94 (24h)	
Recommended use of the chemica	al and restrictions on use	
Recommended use	: Scientific research and development	

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification Not a hazardous substance or mixture. **GHS** label elements Not a hazardous substance or mixture. Other hazards which do not result in classification

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture Hazardous components No hazardous ingredients

SECTION 4. FIRST AID MEASURES

If inhaled	: No special precautions required.	
In case of skin contact	: Wash with water and soap as a precaution. If skin irritation persists, call a physician.	
In case of eye contact	: Immediately flush eye(s) with plenty of water. If eye irritation persists, consult a specialist.	
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according to Work Health and Safety Regulations 2011



Ascorbic Acid Solution

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If swallowed	: Immediately give large quantities of wa Do not induce vomiting without medica Never give anything by mouth to an ur	al advice.
Most important symptoms and effects, both acute and delayed	: No information available.	
Notes to physician	: No information available.	

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Water spray Dry powder Foam	
Hazardous combustion products	: No hazardous combustion products are known	
Specific extinguishing methods	: Use water spray to cool unopened containers.	
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus.	

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment.	
Environmental precautions	: Prevent product from entering drains.	
Methods and materials for containment and cleaning up	: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).	

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	Take precautionary measures against static discharge	€S.
Advice on safe handling	No special precautions required.	
Hygiene measures	Handle in accordance with good industrial hygiene an practice.	d safety
Conditions for safe storage	No special storage conditions required.	

according to Work Health and Safety Regulations 2011



Ascorbic Acid Solution

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SECTION 8. EXPOSURE CONTRO	LS/PERSONAL PROTECTION	
Components with workplace	control parameters	
Contains no substances with oc	cupational exposure limit values.	
Engineering measures	: Avoid splashes.	
Personal protective equipmer	nt	
Respiratory protection	: No personal respiratory protective e required.	equipment normally
Hand protection	APC21 I. I	
Material Rate of permeability	: Nitrile rubber : > 480 min	
Eye protection	: Tightly fitting safety goggles	
Skin and body protection	: Choose body protection according concentration of the dangerous sub No special protective equipment re-	stance at the work place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

	Appearance	:	Aqueous solution
	Colour	:	no data available
	Odour	:	no data available
	Odour Threshold	:	no data available
	рН	:	no data available
	Melting point/freezing point	:	no data available
	Initial boiling point and boiling range	:	no data available
	Flash point	:	no data available
	Evaporation rate	:	no data available
	Flammability (solid, gas)	:	no data available
	Flammability (liquids)	:	no data available
	Upper explosion limit / upper flammability limit	:	no data available
	Lower explosion limit / Lower	:	no data available
f	/ 0000000017		

according to Work Health and Safety Regulations 2011



Ascorbic Acid Solution

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flammability limit			
Vapour pressure	:	no data available	
Relative vapour density	:	no data available	
Relative density	:	no data available	
Density	:	no data available	
Water solubility	:	no data available	
Partition coefficient: n-octanol/water	:	no data available	
Auto-ignition temperature	:	no data available	
Decomposition temperature	:	no data available	
Viscosity, dynamic	:	no data available	
Viscosity, kinematic	:	no data available	

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Stable under r	ecommended storage conditions.
Chemical stability	Stable under r	normal conditions.
Possibility of hazardous reactions	Stable under r	normal conditions.
Conditions to avoid	no data availa	ble
Incompatible materials	Strong oxidizir	ng agents
Hazardous decomposition products	No decompos	ition if stored normally.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity	
Acute oral toxicity	: Remarks: no data available
Acute inhalation toxicity	: Remarks: no data available
Acute dermal toxicity	: Remarks: no data available

Skin corrosion/irritation

Remarks: no data available

Serious eye damage/eye irritation

according to Work Health and Safety Regulations 2011



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Remarks: no data available		
Respiratory or skin sensitisation		
Remarks: no data available		
Germ cell mutagenicity		
Genotoxicity in vitro	: Remarks: no data available	
Carcinogenicity		
Remarks: no data available		
Reproductive toxicity		
Effects on fertility	: Remarks: no data available	
STOT - single exposure		
Remarks: no data available		
STOT - repeated exposure		
STOT - repeated exposure Remarks: no data available		
Remarks: no data available	e product itself.	
Remarks: no data available Further information Remarks: No data is available on the	·	
Remarks: no data available Further information	·	
Remarks: no data available Further information Remarks: No data is available on the	·	
Remarks: no data available Further information Remarks: No data is available on the CTION 12. ECOLOGICAL INFORMA	·	
Remarks: no data available Further information Remarks: No data is available on the CTION 12. ECOLOGICAL INFORMAT	TION	
Remarks: no data available Further information Remarks: No data is available on the CTION 12. ECOLOGICAL INFORMAT Ecotoxicity Toxicity to fish	TION	
Remarks: no data available Further information Remarks: No data is available on the CTION 12. ECOLOGICAL INFORMAT Ecotoxicity Toxicity to fish Persistence and degradability Biodegradability	TION : Remarks: no data available	
Remarks: no data available Further information Remarks: No data is available on the CTION 12. ECOLOGICAL INFORMA Ecotoxicity Toxicity to fish Persistence and degradability	TION : Remarks: no data available	
Remarks: no data available Further information Remarks: No data is available on the CTION 12. ECOLOGICAL INFORMAT Ecotoxicity Toxicity to fish Persistence and degradability Biodegradability Bioaccumulative potential	TION : Remarks: no data available : Result: no data available	
Remarks: no data available Further information Remarks: No data is available on the CTION 12. ECOLOGICAL INFORMAT Ecotoxicity Toxicity to fish Persistence and degradability Biodegradability Bioaccumulative potential Bioaccumulation	TION : Remarks: no data available : Result: no data available	
Remarks: no data available Further information Remarks: No data is available on the CTION 12. ECOLOGICAL INFORMAT Ecotoxicity Toxicity to fish Persistence and degradability Biodegradability Bioaccumulative potential Bioaccumulation Mobility in soil Distribution among environmental	TION : Remarks: no data available : Result: no data available : Remarks: no data available	

SECTION 13. DISPOSAL CONSIDERATIONS

according to Work Health and Safety Regulations 2011



Ascorbic Acid Solution

Version 2.0 Disposal methods Waste from residues		Revision Date 30.06.2021	Print Date 26.04.2024
		: Dispose of in accordance with local regulations.	
SECTION 14. TRANSPORT INFORMATION			
ΙΑΤΑ		Not dangerous goods	
	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	 Not applicable Not applicable Not applicable Not applicable no 	
IMDG		Not dangerous goods	
	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	 Not applicable Not applicable Not applicable Not applicable Not applicable Marine pollutant: no 	
ADR		: Not dangerous goods	
	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	 Not applicable Not applicable Not applicable Not applicable no 	
RID		Not dangerous goods	
	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	 Not applicable Not applicable Not applicable Not applicable no 	

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not applicable

: none

SECTION 15. REGULATORY INFORMATION

Special precautions for user

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

Standard for the Uniform Scheduling of Medicines and Poisons Not applicable

according to Work Health and Safety Regulations 2011



Ascorbic Acid Solution

Version 2.0

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