Geogard™ Ultra /ersion 1.0	MSDS Number: 000000004096	Revision Date: 2015.05.20
ECTION 1. IDENTIFICATION		
Product name	: Geogard™ Ultra	
Product code	: 00000004096	
Manufacturer or supplier's	s details	
Company	 Lonza Inc. 90 Boroline Road Allendale, NJ 07401 USA Business Telephone 1-201-316-9200 Lonza Inc. 1200 Bluegrass Lakes Pkwy Alpharetta, GA 30004 USA Business Telephone 1-678-624-5800 	
E-mail address	: prodinfo@lonza.com	
Emergency telephone numb	ber : +41 61 313 94 94 (24h)	
	For US only CHEMTREC 1-800-424-	9300
Recommended use of the	chemical and restrictions on use	
D		

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture according to US Regulation 29 CFR 1910.1200 (HazCom2012).

GHS Label element

Not a hazardous substance or mixture according to US Regulation 29 CFR 1910.1200 (HazCom2012). Based on available data, the classification criteria are not met.Handle in accordance with good industrial hygiene and safety practice.

Precautionary statements

: Prevention:

ionaly statements	
-	P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
	P262 Do not get in eyes, on skin, or on clothing.
	P280 Wear protective gloves/ protective clothing/ eye protection/
	face protection.
	P270 Do not eat, drink or smoke when using this product.
	Response:
	P314 Get medical advice/ attention if you feel unwell.
	Storage:
	P410 + P403 Protect from sunlight. Store in a well-ventilated
	place.
	, P402 + P404 Store in a dry place. Store in a closed container.
	Disposal:
	P501 Dispose of contents/container in accordance with local regulation.

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Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
D-Glucono-1,5-lactone	90-80-2	74.25<=
Sodium benzoate	532-32-1	24.75<=
Calcium gluconate	299-28-5	1.00<=

SECTION 4. FIRST AID MEASURES

If inhaled	No special prec	autions required.
In case of skin contact	water.	th skin, wash immediately with plenty of soap and persists, call a physician.
In case of eye contact		sh eye(s) with plenty of water. persists, consult a specialist.
If swallowed	Immediately giv	o not induce vomiting - seek medical advice. ve large quantities of water to drink. thing 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	:	Dry powder Water spray Foam
Specific hazards during firefighting	:	Heating or fire can release toxic gas.
Further information	:	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	:	Use personal protective equipment.
equipment and emergency proce-		

Geogard[™] Ultra Version 1.0 MSDS Number: 00000004096 Revision Date: 2015.05.20 dures Environmental precautions General advice Prevent product from entering drains. : Methods and materials for con-Sweep up or vacuum up spillage and collect in suitable container 2 tainment and cleaning up for disposal. SECTION 7. HANDLING AND STORAGE Advice on safe handling No special precautions required. ÷ Keep container tightly closed. Conditions for safe storage

To maintain product quality, do not store in heat or direct sunlight.

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Components with workplace control parameters

Appropriate engineering controls Personal protective equipment Respiratory protection : No personal respiratory protective equipment normally required. Hand protection Remarks Wear suitable gloves. Take note of the information given by the 5 producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Eye protection Safety glasses with side-shields 1 Skin and body protection Wear suitable protective clothing and gloves. 2 Handle in accordance with good industrial hygiene and safety Hygiene measures 2 practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	powder
Colour	:	white
Odour	:	mild
Odour Threshold	:	no data available
рН Ref. 55.4 / 00000004096	:	no data available

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Melting point/range	: no data available	
Boiling point/boiling range	: no data available	
Flash point	: > 93.34 °C	
Evaporation rate	: no data available	
Upper explosion limit	: no data available	
Lower explosion limit	: no data available	
Vapour pressure	: no data available	
Relative vapour density	: no data available	
Relative density	: no data available	
Density	: no data available	
Solubility(ies) 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	:	no data available
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition prod- ucts	:	Nitrogen oxides (NOx) Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of	:	Inhalation
exposure		Ingestion
		Eyes

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	Skin	
Skin corrosion/irritation		
Skin irritation	: non irritant Exposure time: 15 min Method: EPISKIN Human Skin M	<i>l</i> odel Test
The following toxicologica	al data refer to:	
D-Glucono-1,5-lactone(C	CAS-No.: 90-80-2)	
Acute toxicity		
Acute oral toxicity (LD50)	: > 2,000 mg/kg Species: Rat Method: OECD Test Guideline 4 Test substance: see user defined	-
Germ cell mutagenicity		
Genotoxicity in vitro	: negative Ames test, Salmonella typhimuri Metabolic activation: yesRemark	
	negative Chromosome aberration test in v Metabolic activation: noRemarks	, 0

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity		
Toxicity to fish	:	Remarks: no data available
Persistence and degradability		
Biodegradability	:	Remarks: no data available
Bioaccumulative potential		
Bioaccumulation	:	Remarks: no data available
Mobility in soil		
Mobility III Soli		
Distribution among environmental compartments	:	Remarks: no data available
Other adverse effects		
Results of PBT and vPvB assess- ment	:	This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no sub- stance considered to be very persistent and very bioaccumulating (vPvB).
Additional ecological information	:	Information given is based on data on the components and the ecotoxicology of similar products.

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The following ecotoxicological data refer to:

D-Glucono-1,5-lactone (CAS-No.: 90-80-2)

Ecotoxicity

Toxicity to fish (LC50)	:	360 mg/l Species: Leuciscus idus (Golden orfe) Acute toxicity Exposure time: 48 h Method: DIN 38412 Part 15
Toxicity to daphnia and other aquatic invertebrates (EC50)	:	305 mg/l Species: Daphnia magna (Water flea) Immobilization Exposure time: 24 h Method: OECD Test Guideline 202
Toxicity to algae (ErC50)	:	> 500 mg/l Species: Scenedesmus capricornutum (fresh water algae) End point: Growth rate Exposure time: 72 h Method: DIN 38412
Toxicity to bacteria (EC0)	:	> 500 mg/l
		Species: Pseudomonas putida Growth inhibition Exposure time: 16 h Test Type: Growth inhibition Method: DIN 38412 Part 8
Persistence and degradability		
Biodegradability	:	Test Type: Closed Bottle test Result: Readily biodegradable Biodegradation: 71 % Exposure time: 5 Days Method: OECD Test Guideline 301D
		Test Type: Zahn-Wellens Test Result: Biodegradable Biodegradation: 98 % Exposure time: 2 Days Method: OECD Test Guideline 302 B

Test substance: see user defined free text

Bioaccumulative potential

no data available

Mobility in soil

no data available Ref. 55.4 / 00000004096

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Other adverse effects

no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues

: Dispose of in accordance with local regulations. Contact waste disposal services.

Not dangerous goods

SECTION 14. TRANSPORT INFORMATION

ΙΑΤΑ

IMDG

ADR

RID

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

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DOT		:	Not dangerous goods
	UN number Proper shipping name Transport hazard class Packing group Environmental hazards	:	Not applicable Not applicable Not applicable Not applicable no
TDG		:	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 An- nex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15. REGULATORY INFORMATION

WHMIS Classification	Not a controlled Product
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EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards : No SARA Hazards

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations	
Massachusetts Right To Know	
	No components are subject to the Massachusetts Right to Know Act.
Massachusetts Right To Know	
	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know	

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Geoo	ard™	Ultra
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	No components are subject act	ct to the Pennsylva	nia Right to know	
Pennsylvania Right To Know	1			
	Calcium gluconate	299-28-5	90 - 100 %	
	Sodium benzoate	532-32-1	90 - 100 %	
	D-Glucono-1,5-lactone	90-80-2	90 - 100 %	
New Jersey Right To Know				
	No components are subject act	No components are subject to the New Jersey Right to know act		
New Jersey Right To Know				
	Calcium gluconate	299-28-5	90 - 100 %	
	Sodium benzoate	532-32-1	90 - 100 %	
	D-Glucono-1,5-lactone	90-80-2	90 - 100 %	
The components of this proc	luct are reported in the following inv	ventories:		
TSCA	: All components of this pro	: All components of this product are listed on the EPA TSCA		

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

8(b) inventory list.

SECTION 16. OTHER INFORMATION

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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.