

ENCES[®] G-Biosciences, St Louis, MO, USA | 1-800-628-7730 | 1-314-991-6034 | technical@GBiosciences.com

A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Cat. # 786-310

Glutathione Resin

Size: 25ml Resin





Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 06/03/2013 Revision date: 05/11/2017 Version: 7.1

SECTION 1: Identification		
1.1. Identification	. Misture	
Product form : Mixture		
Product name	: Glutathione Resin	
roduct code	: 109G_110G_111G_112G_113G	
.2. Recommended use and r	restrictions on use	
No additional information available		
1.3. Supplier		
Geno Technology, Inc./ G-Bioscience 800 Page Avenue Saint Louis, 63132-1429 - United Sta ⁵ 800-628-7730 - F 314-991-1504 <u>echnical@GBiosciences.com</u> - <u>www</u>	tates	
.4. Emergency telephone nu	umber	
mergency number	: Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)	
ECTION 2: Hazard(s) ident	tification	
.1. Classification of the subs	stance or mixture	
GHS US classification		
lammable liquids Category 4 H22	27 Combustible liquid	
ull text of H statements : see section	•	
.2. GHS Label elements, incl	cluding precautionary statements	
HS US labeling		
ignal word (GHS US)	: Warning	
azard statements (GHS US)	: H227 - Combustible liquid	
Precautionary statements (GHS US)	 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P370+P378 - In case of fire: Use media other than water to extinguish. P403+P235 - Store in a well-ventilated place. Keep cool. 	
	P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation	
3. Other hazards which do	P501 - Dispose of contents/container to hazardous or special waste collection point, in	
	P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation	
lo additional information available	P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation not result in classification	
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o additional information available 4. Unknown acute toxicity (ot applicable ECTION 3: Composition/In 1. Substances ot applicable 2. Mixtures Name ethanol ull text of hazard classes and H-stat	P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation International result in classification (GHS US) Information on ingredients Image: Common Name (Synonyms) Product identifier % GHS US classification Image: Common Name (Synonyms) Product identifier % GHS US classification Image: Common Name (Synonyms) Product identifier % GHS US classification Image: Common Name (Synonyms) Product identifier % GHS US classification Image: Common Name (Synonyms) Image: Classifier Image: Common Name (Synonyms) Image: Classifier Image: Common Name (Synonyms) Image: Classifier Image: Classifier % GHS US classification Image: Classifier Image: Classifier % Image: Classifier % GHS US classification Image: Classifier Image: Classifier % Image: Classifier % GHS US classifier Image: Classifier Image: Classifier % Imade: Classifier % <	
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lo additional information available .4. Unknown acute toxicity (lot applicable SECTION 3: Composition/In .1. Substances lot applicable .2. Mixtures Name ethanol full text of hazard classes and H-star SECTION 4: First-aid measu	P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation Intersult in classification (GHS US) Information on ingredients Common Name (Synonyms) Product identifier % GHS US classification thanol (ethyl alcohol) / ethanol, anhydrous, undenatured / ethyl alcohol (CAS-No.) 64-17-5 > 50 Flam. Liq. 2, H225 atements : see section 16 ures ethanove person to fresh air and keep comfortable for breathing. t Wash skin with plenty of water. 	

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5	· · · · · · · · · · · · · · · · · · ·			
4.2.	Most important symptoms and effects	acute and delayed)		
No addit	ional information available			
4.3.	3. Immediate medical attention and special treatment, if necessary			
Treat sy	mptomatically.			
SECTI	ON 5: Fire-fighting measures			
5.1.	Suitable (and unsuitable) extinguishir	ng media		
Suitable	Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.			
5.2.	Specific hazards arising from the che	mical		
Fire haz		Combustible liquid.		
5.3.	Special protective equipment and pre	cautions for fire-fighters		
		 Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. 		
SECTI	ON 6: Accidental release measu	ires		
6.1.	Personal precautions, protective equi	pment and emergency procedures		
6.1.1.	For non-emergency personnel			
Emerger	ncy procedures	Ventilate spillage area. No open flames, no sparks, and no smoking.		
6.1.2. Protectiv	For emergency responders	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".		
6.2.	Environmental precautions			
Avoid re	lease to the environment.			
6.3.	Methods and material for containment	t and cleaning up		
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters se waters.		Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.		
Other information : Dispose of materials or solid resi		Dispose of materials or solid residues at an authorized site.		
6.4.	Reference to other sections			
For furth	er information refer to section 13.			
SECTI	ON 7: Handling and storage			
7.1.	Precautions for safe handling			
Precauti	ons for safe handling	Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.		
Hygiene	measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.		
7.2.	Conditions for safe storage, including	any incompatibilities		
Storage		Store in a well-ventilated place. Keep cool.		
Storage	temperature	: 4 °C		
SECTI	ON 8: Exposure controls/perso	nal protection		
8.1.	Control parameters			
Glutat	hione Resin			
No add	litional information available			
ethanc	ol (64-17-5)			
	USA - ACGIH - Occupational Exposure Limits			
ACGIH	I STEL (ppm)	1000 ppm		
0.0				
8.2.	Appropriate engineering controls	Ensure good ventilation of the work station		
	• •	Ensure good ventilation of the work station.		

8.3.	Los allocations and its	and the set of the set	measures/Persor	and the second second bases	and the state of the second
X 3	Individual	protection	measures/Persol	nal protective	equinment

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Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and	chemical properties	
Physical state	: Liquid	
Color	: No data available	
Odor	: No data available	
Odor threshold	: No data available	
рН	: No data available	
Melting point	: Not applicable	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: 65 °C	
Relative evaporation rate (butyl acetate=1)	: No data available	
Flammability (solid, gas)	: Not applicable.	
Vapor pressure	: No data available	
Relative vapor density at 20 °C	: No data available	
Relative density	: No data available	
Solubility	: No data available	
Log Pow	: No data available	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Viscosity, kinematic	: No data available	
Viscosity, dynamic	: No data available	
Explosion limits	: No data available	
Explosive properties	: No data available	
Oxidizing properties	: No data available	
9.2. Other information		

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

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0.6. Hazardous decomposition products	
lazardous decomposition products.	
SECTION 11: Toxicological informati	on
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
ethanol (64-17-5)	
LD50 oral rat	10740 mg/kg body weight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	> 20 mg/l (4 h, Rat, Inhalation)
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
ethanol (64-17-5)	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
ethanol (64-17-5)	
LC50 fish 1	14200 mg/l (US EPA, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	9300 mg/l (48 h, Daphnia magna, Pure substance)
12.2. Persistence and degradability	
ethanol (64-17-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0.8 - 0.967 g O ₂ /g substance
Chemical oxygen demand (COD)	1.7 g O ₂ /g substance
ThOD	2.1 g O ₂ /g substance
BOD (% of ThOD)	0.43
12.3. Bioaccumulative potential	
ethanol (64-17-5)	
BCF fish 1	1 (Other, 72 h, Cyprinus carpio, Static system, Fresh water, Read-across)
Log Pow	-0.35 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 24 °C)
	Low potential for bioaccumulation (Log Kow < 4).

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ethanol (64-17-5)	
Surface tension	0.0245 N/m (20 °C)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal consider	ations	
13.1. Disposal methods Waste treatment methods Image: Comparison of the second secon	: Waste treatment methods.	
SECTION 14: Transport information	lion	
Department of Transportation (DOT)		
In accordance with DOT		
Not regulated		
Transportation of Dangerous Goods		
Transport by sea		
Not regulated		
Air transport		
Not regulated		
SECTION 15: Regulatory inform	ation	
15.1. US Federal regulations		
ethanol (64-17-5)		
Listed on the United States TSCA (Toxic	Substances Control Act) inventory	
15.2. International regulations		
CANADA		
ethanol (64-17-5)		
Listed on the Canadian DSL (Domestic S	ubstances List)	
EU-Regulations		
National regulations		
ethanol (64-17-5)		
Listed on IARC (International Agency for	Research on Cancer)	
15.3. US State regulations		
SECTION 16: Other information		
according to Foderal Deviator (Mal 77 No. 59 /	Janday Marsh 26, 2012 / Dulas and Desulations	

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Revision date	:	05/11/2017
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Full text of H-phrases:

	H225	Highly flammable liquid and vapour
	H227	Combustible liquid

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SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.