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A Geno Technology, Inc. (USA) brand name

# Safety Data Sheet

Cat. # 786-407

## Nickel Chelating Resin

Size: 100ml Resin



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# Nickel Chelating Resin

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : Nickel Chelating Resin  
Product code : 060N\_059N\_062N\_061N

#### 1.2. Recommended use and restrictions on use

No additional information available

#### 1.3. Supplier

Geno Technology, Inc./ G-Biosciences  
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Saint Louis, 63132-1429 - United States  
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#### 1.4. Emergency telephone number

Emergency number : Chemtrec **1-800-424-9300** (USA/Canada), **+1-703-527-3887** (Intl)

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Flammable liquids Category 4  
Respiratory sensitization, Category 1

Skin sensitization, Category 1

Germ cell mutagenicity Category 2

Specific target organ toxicity (repeated exposure) Category 1

Hazardous to the aquatic environment - Acute Hazard Category 3

Hazardous to the aquatic environment - Chronic Hazard Category 3

Full text of H statements : see section 16

H227 Combustible liquid  
H334 May cause an allergy or asthma symptoms or breathing difficulties if inhaled  
H317 May cause an allergic skin reaction  
H341 Suspected of causing genetic defects  
H372 Causes damage to organs through prolonged or repeated exposure  
H402 Harmful to aquatic life  
H412 Harmful to aquatic life with long lasting effects

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H227 - Combustible liquid  
H317 - May cause an allergic skin reaction  
H334 - May cause an allergy or asthma symptoms or breathing difficulties if inhaled  
H341 - Suspected of causing genetic defects  
H372 - Causes damage to organs through prolonged or repeated exposure  
H402 - Harmful to aquatic life  
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS US) :

P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P272 - Contaminated work clothing must not be allowed out of the workplace  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P284 - [In case of inadequate ventilation] wear respiratory protection.  
P302+P352 - If on skin: Wash with plenty of water  
P304+P341 - If inhaled: If breathing is difficult, remove person to fresh air and keep

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comfortable for breathing  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P314 - Get medical advice/attention if you feel unwell.  
P321 - Specific treatment (see supplemental first aid instruction on this label)  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P342+P311 - If experiencing respiratory symptoms: Call a poison center or doctor  
P363 - Wash contaminated clothing before reuse.  
P370+P378 - In case of fire: Use media other than water to extinguish.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
ethanol	ethanol (ethyl alcohol) / ethanol, anhydrous, undenatured / ethyl alcohol	(CAS-No.) 64-17-5	10 - 50	Flam. Liq. 2, H225
nickel dichloride, hexahydrate	nickel chloride (NiCl <sub>2</sub> ), hexahydrate / nickel dichloride, hexahydrate / nickel(II)chloride, hexahydrate / nickelous chloride, hexahydrate	(CAS-No.) 7791-20-0	2 - 5	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 Muta. 2, H341 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.  
First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.  
First-aid measures after eye contact : Rinse eyes with water as a precaution.  
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause an allergy or asthma symptoms or breathing difficulties if inhaled.  
Symptoms/effects after skin contact : May cause an allergic skin reaction.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Combustible liquid.

### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Do not breathe dust/fume/gas/mist/vapors/spray. Only qualified personnel equipped with suitable protective equipment may intervene. No open flames, no sparks, and no smoking.

##### 6.1.2. For emergency responders

Protective equipment : 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 release to the environment. Notify authorities if product enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Separate working clothes from town clothes. Launder separately.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Store locked up.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<b>Nickel Chelating Resin</b>	
No additional information available	
<b>ethanol (64-17-5)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH STEL (ppm)	1000 ppm
<b>nickel dichloride, hexahydrate (7791-20-0)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup> (Inhalable fraction)

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

##### Hand protection:

Protective gloves

##### Eye protection:

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Safety glasses

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

Wear respiratory protection.

## 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
pH	: 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

### 10.6. Hazardous decomposition products

Hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

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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)

nickel dichloride, hexahydrate (7791-20-0)	
ATE US (oral)	100 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h

Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitization : May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.  
Germ cell mutagenicity : Suspected of causing genetic defects.  
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 : Causes damage to organs through prolonged or repeated exposure.

nickel dichloride, hexahydrate (7791-20-0)	
Specific target organ toxicity – repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified  
Viscosity, kinematic : No data available

Symptoms/effects after inhalation : May cause an allergy or asthma symptoms or breathing difficulties if inhaled.  
Symptoms/effects after skin contact : May cause an allergic skin reaction.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects. Harmful to aquatic life.

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 <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.7 g O <sub>2</sub> /g substance
ThOD	2.1 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.43

nickel dichloride, hexahydrate (7791-20-0)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable

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nickel dichloride, hexahydrate (7791-20-0)	
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

### 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)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

nickel dichloride, hexahydrate (7791-20-0)	
BCF fish 1	40 - 1000 (Pisces, Nickel ion)
BCF other aquatic organisms 1	0.9 - 11.6 (Daphnia magna, Nickel ion)
BCF other aquatic organisms 2	250 - 1700 (Chlorophyta, Nickel ion)

### 12.4. Mobility in soil

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 considerations

### 13.1. Disposal methods

Waste treatment methods : Waste treatment methods.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not applicable

### Transportation of Dangerous Goods

Not applicable

### Transport by sea

Not applicable

### Air transport

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

ethanol (64-17-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

nickel dichloride, hexahydrate (7791-20-0)	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory	

### 15.2. International regulations

#### CANADA

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### ethanol (64-17-5)

Listed on the Canadian DSL (Domestic Substances 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

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Revision date : 05/11/2017

Full text of H-phrases:

H225	Highly flammable liquid and vapour
H227	Combustible liquid
H301	Toxic if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H331	Toxic if inhaled
H334	May cause an allergy or asthma symptoms or breathing difficulties if inhaled
H341	Suspected of causing genetic defects
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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.*