



MagExtractor™ -Genome-  
 First issue: Mar 21, 2017  
 Revised issue:  
 SDS No.1407F

# Safety Data Sheet

## 1 Chemical product and company identification

Identification of the product	MagExtractor™ -Genome-
Product Code	NPK-101,102,192,101S
SUPPLIER	
Name	TOYOBO Co., Ltd.
Address	2-2-8 Dojima Hama Kita-ku Osaka, 530-8230 Japan
Department	Biotech support Department
Emergency Telephone No.	+81-6-6348-3786
Fax No.	+81-6-6348-3833
Recommended uses and restrictions on use	Isolation of genomic DNA This product is sold for research purposes only . It is not intended for food, drug, household, agricultural or cosmetic use.

## 2 Hazards identification

Important hazards	
Physical and chemical hazards	
Adverse effects on human health	Guanidinium hydrochloride is contained in Lysis&Binding Solution and Washing Solution. May cause eye and skin irritation.
Adverse effects on the environment	May develop poisonous gas in contact with oxidant.

### GHS classification

Hazard class and category	<Magnetic beads>	<Lysis&Binding Solution>	<Washing Solution>
Physical Hazards	Classification not possible	Classification not possible	Classification not possible
Health Hazards			
Acute toxicity: Oral	Not classified	Category 4	Category 4
Skin corrosion/Irritation	Classification not possible	Category 2	Category 2
Serious eye damage/Eye irritation	Category 2	Category 2	Category 2
Carcinogenicity	Classification not possible	Classification not possible	Classification not possible
Specific target organ toxicity (single exposure)	Category 3 (respiratory tract irritation)	Classification not possible	Classification not possible
Specific target organ toxicity (repeated exposure)	Category 1 (respiratory organs)	Classification not possible	Classification not possible
Environmental Hazards	Classification not possible	Classification not possible	Classification not possible



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### 2 Hazards identification(Continued)

Label elements

<Magnetic beads>

Pictograms or symbols



Signal word

Danger

Hazard statements

Causes serious eye irritation  
 May cause respiratory irritation  
 Cause damage to respiratory organs through prolonged or repeated exposure

Precautionary statements

Prevention

Wear eye protection / face protection. Wash hands thoroughly after handling.  
 Do not breathe dust / fume / gas / mist / vapours / spray. Use only outdoors or in a well-ventilated area.  
 Do not eat, drink or smoke when using this product.

Response

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice / attention.  
 If inhaled: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attentions if you feel unwell.

Storage

Store locked up.

Disposal

Store in a well-ventilated place. Keep container tightly closed.  
 Dispose of contents / container in accordance with local / regional / National /international regulation.

<Lysis&Binding Solution>, <Washing Solution>

Pictograms or symbols



Signal words

Warning

Hazard statements

Harmful if swallowed  
 Cause skin irritation  
 Causes serious eye irritation

Precautionary statements

Prevention

Wash hands thoroughly after handling  
 Do not eat, drink or smoke when using this product.

Response

Wear protective gloves/eye protection/face protection.  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you fell unwell. Rinse mouth.  
 IF ON SKIN: Wash with plenty of water and soap.  
 If skin irritation occurs: Get medical advice/attention.  
 Take off contaminated clothing and wash it before reuse.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. continue rinsing.  
 If eye irritation persists: Get medical advice/attention.

Disposal

Dispose of contents / container in accordance with local / regional / National /international regulation.



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### 3 Composition/information on ingredients

Chemical product (a substance or a mixture) Mixture  
 <Lysis & Binding Solution>, <Washing Solution>; aqueous solution  
 <Magnetic Beads>; aqueous dispersion

#### Chemical Nature

Parts Name	Main components	CAS No. (EC No.)
<Magnetic Beads>	Magnetic Beads (Silicon dioxide, triiron tetraoxide)	-
	Sodium Chloride	7647-14-5
<Lysis & Binding Solution>	Guanidine Hydrochloride	50-01-1
	di-Sodium Dihydrogen Ethylenediaminetetraacetate Dihydrate	6381-92-6
	Polyoxyethylene Sorbitan Monolaurate	9005-64-5
<Washing Solution>	Guanidine Hydrochloride	50-01-1

#### Components Contributing to the Hazard

Common Chemical Name (or Generic Name)	Silicon dioxide	triiron tetraoxide	Guanidine Hydrochloride
Synonyms	colloidal silica	iron(II) iron(III) oxide	Guanidinium Hydrochloride
Contained Parts:Percentage	Magnetic Beads: 15~30%	Magnetic Beads: 5~15%	Lysis&Binding Solution Washing Solution 45~65%
CAS No.	7631-86-9	1317-61-9	50-01-1

### 4 First-aid measures

Inhalation	In case of irritation by inhaling this product, move affected person to fresh air. Call a POISON CENTER or doctor if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Wash with plenty of clean water, immediately. If skin irritation occurs: Get medical advice/attention.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice / attention.
Ingestion	Rinse mouth. Call a POISON CENTER or doctor/physician if you fell unwell. Do not induce to vomiting.
Most important symptoms/effects	Inhalation, Ingestion: Cough, Diarrhea Skin, Eye: Pain, Redness

### 5 Fire-fighting measures

Extinguishing media	Powder, Carbon Dioxide, Foam, Dry sand
Specific hazards	Toxic gas containing carbon monoxide, nitrogen oxides, chlorine/hydrogen chloride may be generated upon combustion of.
Precautions for fire-fighters	Fire-fighting should be done from the windward side of fire area. Fire-fighters should wear proper protective equipment in case of large scale fire.

### 6 Accidental release measures

Personal precautions	Wear protective gear to avoid eye/skin contact and inhalation.
Environmental precautions	Avoid disposition to the environment.
Methods for cleaning up	Use cloth, paper or anything similar to soak up the solution leaking out of the container. Take up under vacuum using dust collecting filter.



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### 7 Handling and storage

#### Handling

Technical measures  
 Precautions

Wear protective equipment and avoid contact with eyes and skin.  
 Handle the reagent not to generate aerosol or dust.  
 Use only in a well-ventilated area.

Hygiene measures

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

#### Storage

Technical measures  
 Packaging Materials

Keep tightly closed and store at about 2-8°C.  
 Store in a well-ventilated area.  
 Store in the original package

### 8 Exposure controls and personal protection

#### Engineering controls

Set up good ventilation and exhaust system in the work area. Provide shower and eye washing apparatus nearby.

#### Personal protective equipment

Respiratory protection  
 Hand protection  
 Eye protection  
 Skin and body protection

Wear a dust mask.  
 Chemical safety gloves.  
 Chemical safety goggles.  
 Wear lab coat when needed.

### 9 Physical and chemical properties

#### Physical State

Liquid

#### Colour

Brown suspension(Magnetic Beads), Clear solution(Others)

#### pH

7.0~8.0

#### Flash point

No flammability due to aqueous solution

#### Explosion limit

Not explosive

#### Density

Not available

#### Solubility

Soluble in water except for Magnetic Beads .

### 10 Stability and reactivity

#### Chemical stability and hazardous reactions

Stable under normal handling.

#### Conditions to Avoid

Incompatible materials

Strong oxidizers

Hazardous decomposition products

carbon monoxide, nitrogen oxides, chlorine, hydrogen chloride



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### 11 Toxicological information

Acute toxicity May be harmful if swallowed  
 Skin irritation/corrosion May cause eye and skin irritation.  
 Specific target organ toxicity-single exposure May cause respiratory irritation.  
 Toxicological information on the component of this product

	Silicon dioxide	Triiron tetraoxide	Guanidine Hydrochloride
Acute toxicity			
Oral toxicity	Not available	Not classified	Rat: LD50 774mg/kg
Dermal toxicity	Not available	Not classified	Rabbit: LD0 >2000mg/kg
Inhalation toxicity	Not available	Not available	Rat: LC50 5.319mg/L
Skin corrosion/Irritation	Not available	Not classified	Category 2
Eye damage/irritation	Not available	Category 2	Category 2A
Carcinogenicity	IARC Group 3	Not available	Not available
Specific target organ toxicity-single exposure	Category 3 (respiratory tract irritation)	Not available	Not available
Specific target organ toxicity-repeated exposure	Category 1 (respiratory organs)	Not available	Not available

### 12 Ecological information

Ecotoxicity Not available  
 Persistence and degradability Not available  
 Bioaccumulative potential Not available  
 Mobility in soil Soluble in water and diffusible into water environment except for Magnetic Beads.

### 13 Disposal considerations

Waste from residues Dispose of in accordance with all applicable local and national laws and regulations.  
 Contaminated container and Contaminated packaging Dispose of in accordance with all applicable local and national laws and regulations.

### 14 Transport information

International Regulations  
 UN number Not classified  
 Specific Precautions Follow all of the laws and regulations in your respective country.  
 To prevent packages from breaking, handle with care.

### 15 REGULATORY INFORMATION

Follow all of the laws and regulations in your country.



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### 16 OTHER INFORMATION

#### Notice

It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. The information in this SDS, to the best of our knowledge, is accurate and correct. However, TOYOBO makes no warranty and assumes no liability whatsoever in connection with any use of this information. The information shall not be taken as being all inclusive and is to be used only a guide. All materials and mixtures may be present unknown hazards and should be used with caution. The SDS is subject to revision as new information becomes available.