

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Trade name: **GXT DNA/RNA Extraction Kit**

Date of issue: May 20, 2010

Revised at: March 20, 2019 (Version F)



## **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

### **1.1 Product identifier**

Trade name: **GXT DNA/RNA Extraction Kit**

Order number: 12.01.02

### **1.2 Relevant identified uses of the substance or mixture and uses advised against**

Laboratory chemical

### **1.3 Details of the supplier of the safety data sheet**

Hain Lifescience GmbH

Hardwiesenstr. 1

72147 Nehren, Germany

Tel.: +49 (0) 74 73- 94 51- 0

E-mail: msds@hain-lifescience.de

### **1.4 Emergency telephone number**

+49 (0) 74 73- 94 51- 0 (Mon-Fri 8:00-17:00 CET)

## **SECTION 2: Hazards identification**

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

Classification according to Regulation (EC) No. 1272/2008:

Acute Toxicity (oral, category 4)

Acute Toxicity (inhalation, category 4)

Flammable Liquid (category 2)

Skin Corrosive (category 1B)

Serious Eye Damage (category 1)

Aquatic Chronic (category 3)

### **2.2 Label elements**

Labelling according to Regulation (EC) No. 1272/2008:

Hazard pictograms:



Signal word:

Danger

Hazard statements:

H225:

Highly flammable liquid and vapour.

H302+332:

Harmful if swallowed or if inhaled.

H314:

Causes severe skin burns and eye damage.

H318:

Causes serious eye damage.

H412:

Harmful to aquatic life with long lasting effects.

EUH032:

Contact with acid liberates very toxic gas.

Precautionary statements:

P210:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P273:

Avoid release to the environment.

P280:

Wear protective gloves / protective clothing / eye protection.

P301+312:

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P304+340:

IF INHALED: Remove person to fresh air and keep

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Trade name: **GXT DNA/RNA Extraction Kit**

Date of issue: May 20, 2010

Revised at: March 20, 2019 (Version F)



Page 2 of 7

comfortable for breathing.  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 2.3 Other hazards

none

## **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

The reagent cartridges contain different solutions with the following hazardous substances:

**70-96% (w/w) ethanol** (EC no. 200-578-6, CAS no. 64-17-5)

Classification of ethanol (100%) according to Regulation (EC) No. 1272/2008: Flammable liquids (category 2); H225

**<35% guanidine thiocyanate** (Index no. 615-004-00-3, EC no. 209-812-1, CAS no. 593-84-0)

Classification of guanidine thiocyanate (100%) according to Regulation (EC) No. 1272/2008: Acute toxicity (category 4; inhalation), acute toxicity (category 4; dermal), acute toxicity (category 4; oral), skin corrosive (category 1B), chronic hazards to the aquatic environment (category 3); H302/312/332-314-412, EUH032

**<2% (w/w) Triton® X-100** (CAS no. 9002-93-1)

Classification of Triton® X-100 (100%) according to Regulation (EC) No. 1272/2008: Acute toxicity (category 4; oral), serious eye irritation (category 2), chronic hazards to the aquatic environment (category 2); H302-319-411

Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No 1907/2006 (REACH).

**<10% (w/w) citric acid** (EC no. 201-069-1, CAS no. 77-92-9)

Classification according to Regulation (EC) No. 1272/2008: Skin irritation (category 2), serious eye damage (category 1), specific target organ toxicity – single exposure (respiratory tract, category 3); H315-318-335

Full text of hazard statements: see section 16.

## **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

If symptoms arise, call a physician.

|                          |   |
|--------------------------|---|
| If inhaled:              | Remove to fresh air. Call a physician.  |
| If swallowed:            | Wash out mouth with plenty of water. Drink plenty of water. Call a physician.   |
| In case of skin contact: | Immediately wash skin with soap and copious amounts of water. Remove contaminated clothing. Call a physician.   |
| In case of eye contact:  | Immediately flush eyes with plenty of water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers. Call a physician. |

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Trade name: **GXT DNA/RNA Extraction Kit**

Date of issue: May 20, 2010

Revised at: March 20, 2019 (Version F)



Page 3 of 7

## **4.2 Most important symptoms and effects, both acute and delayed**

No data available.

## **4.3 Indication of any immediate medical attention and special treatment needed**

No data available.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

In case of fire: Use alcohol-resistant dry chemical, powder or foam, or carbon dioxide for extinction (P370+378).

### **5.2 Special hazards arising from the substance or mixture**

Hydrogen cyanide, nitrous gases, sulphur oxides

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Prevent fire-fighting water from entering surface water or groundwater. Vapor is heavier than air. May emit toxic gases or fumes under fire conditions.

## **SECTION 6: Accidental release measures**

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

Wear gloves and chemical safety goggles. Remove all sources of ignition. Ventilate area and wash spill site after material pickup is complete.

### **6.2 Environmental precautions**

Do not allow product to enter drains.

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

Pick up mechanically.

### **6.4 Reference to other sections**

Disposal: see section 13.

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

No further requirements.

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

Keep tightly closed at 15-25°C in a dry, ventilated area away from heat sources and flammable and toxic substances.

### **7.3 Specific end use(s)**

No data available.

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Trade name: **GXT DNA/RNA Extraction Kit**

Date of issue: May 20, 2010

Revised at: March 20, 2019 (Version F)



Page 4 of 7

## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

Does not contain substances with exposure limit values.

### **8.2 Exposure controls**

Wear suitable protective clothing, gloves, and chemical safety goggles when handling the product. Close vial tightly immediately after use. Wash hands thoroughly after handling.

## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

- a) Appearance: liquid, colorless/brown/yellow
- b) Odour: odourless
- c) Odour threshold: No data available.
- d) pH: No data available.
- e) Melting point/freezing point: No data available.
- f) Initial boiling point and boiling range: No data available.
- g) Flash point: No data available.
- h) Evaporation rate: No data available.
- i) Flammability (solid, gas): No data available.
- j) Upper/lower flammability or explosive limits: No data available.
- k) Vapour pressure: No data available.
- l) Vapour density: No data available.
- m) Relative density: No data available.
- n) Solubility(ies): water soluble
- o) Partition coefficient n-octanol/water: No data available.
- p) Auto-ignition temperature: No data available.
- q) Decomposition temperature: No data available.
- r) Viscosity: No data available.
- s) Explosive properties: No data available.
- t) Oxidising properties: No data available.

### **9.2 Other information**

No data available.

## **SECTION 10: Stability and reactivity**

### **10.1 Reactivity**

No data available.

### **10.2 Chemical stability**

No data available.

### **10.3 Possibility of hazardous reactions**

No data available.

### **10.4 Conditions to avoid**

heating

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Trade name: **GXT DNA/RNA Extraction Kit**

Date of issue: May 20, 2010

Revised at: March 20, 2019 (Version F)



## 10.5 Incompatible materials

Strong acids, strong bases, strong oxidizing agents (e.g. sodium hypochlorite), cyanides

## 10.6 Hazardous decomposition products

Hydrogen cyanide, nitrous gases, sulphur oxides

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

a) Acute toxicity:

**Guanidine thiocyanate:**

LD50 (oral, rat): 593 mg/kg

LD50 (dermal, mouse): 300 mg/kg

**Triton® X-100:**

LD50 (oral, rat, male): 500 mg/kg

LD50 (dermal, rat, male): 8000 mg/kg

**Ethanol:**

LD50 (oral, rat): 7660 mg/kg

LD50 (inhalation, rat): 20000 ppm/10h

**Citric acid:**

LD50 (oral, rat): 3000 mg/kg

b) Skin corrosion/irritation:

**Triton® X-100:** weak irritation (rabbit)

**Citric acid:** weak irritation (rabbit)

c) Serious eye damage/irritation:

**Triton® X-100:** severe irritation (rabbit)

**Citric acid:** severe irritation (rabbit)

d) Respiratory or skin sensitisation: No data available.

e) Germ cell mutagenicity: No data available.

f) Carcinogenicity: No data available.

g) Reproductive toxicity: No data available.

h) Specific target organ toxicity - single exposure: No data available.

i) Specific target organ toxicity - repeated exposure: No data available.

j) Aspiration hazard: No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Guanidine thiocyanate**

Fish toxicity: LC50 (Poecilia reticulata): 89,1 mg/l /96h

Daphnia toxicity: EC50 (Daphnia magna): 42,4 mg/l /48h

**Triton® X-100**

Fish toxicity: LD50 (Pimephales promelas): 8.9 mg/l /96h

Daphnia toxicity: EC50 (Daphnia): 26 mg/l /96h

**Citric acid**

Fish toxicity: LD50 (Leuciscus idus): 440 mg/l /48h

Daphnia toxicity: LD50 (Daphnia): 120 mg/l /72h

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Trade name: GXT DNA/RNA Extraction Kit

Date of issue: May 20, 2010

Revised at: March 20, 2019 (Version F)



## 12.2 Persistence and degradability

Triton® X-100

Biodegradation: readily biodegradable

Ethanol

Biodegradation: readily biodegradable

## 12.3 Bioaccumulative potential

No data available.

## 12.4 Mobility in soil

No data available.

## 12.5 Results of PBT and vPvB assessment

No data available.

## 12.6 Other adverse effects

No data available.

## **SECTION 13: Disposal considerations**

### 13.1 Waste treatment methods

Dispose of unused reagents and waste in accordance with federal, state, and local regulations. Do not allow product to enter drains. Transfer used cartridges, pipette tips and disposable pumps to a container for biohazardous waste and autoclave before disposal.

## **SECTION 14: Transport information**

### 14.1 UN number

ADR/RID: 3316

IMDG: 3316

IATA: 3316

### 14.2 UN proper shipping name

ADR/RID: CHEMICAL KIT

IMDG: CHEMICAL KIT

IATA: CHEMICAL KIT

### 14.3 Transport hazard class(es)

ADR/RID: 9

IMDG: 9

IATA: 9

### 14.4 Packing group

ADR/RID: II

IMDG: II

IATA: II

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Trade name: **GXT DNA/RNA Extraction Kit**

Date of issue: May 20, 2010

Revised at: March 20, 2019 (Version F)



## 14.6 Special precautions for user

No data available.

## **SECTION 15: Regulatory information**

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

No data available.

### 15.2 Chemical safety assessment

No data available.

## **SECTION 16: Other information**

The following hazard statements refer to the classification of the components (pure substance, 100%) and not to the classification of the mixture:

|               |   |
|---------------|---|
| H225:         | Highly flammable liquid and vapour.                       |
| H302+312+332: | Harmful if swallowed, in contact with skin or if inhaled. |
| H302:         | Harmful if swallowed.                                     |
| H314:         | Causes severe skin burns and eye damage.                  |
| H315:         | Causes skin irritation.                                   |
| H318:         | Causes serious eye damage.                                |
| H319:         | Causes serious eye irritation.                            |
| H335:         | May cause respiratory irritation.                         |
| H411:         | Toxic to aquatic life with long lasting effects.          |
| H412:         | Harmful to aquatic life with long lasting effects.        |
| EUH032:       | Contact with acids liberates very toxic gas.              |

The above product shall be used by trained staff only. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. Hain Lifescience shall not be held liable for any damage or other consequences resulting from handling or from contact with the above product.

### Changes compared to the previous version of this document

| Section | Title                  | Change  |
|---------|------------------------|---|
| 2       | Hazards identification | New classification of the mixture, new label elements |