

Date: 10.6.2008

Former date: -

1. Identification of the Chemical and of the Manufacturer, Importer or Other Undertaking

Identification of the substance or preparation

Trade name: **DNARelease™ Additive**Code of the preparation: **F-355**

Use of the substance or preparation

Molecular biology applications

Identification of the manufacturer, importer or other undertaking

Manufacturer, importer, other undertaking: **Finnzymes Oy**

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Postcode and post office: 02150 Espoo

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Telefax: +358-9-2472 3200

E-mail: fz@finnzymes.fi

Emergency telephone number

HUS 09-471977 HUS Poison Information Centre, or +358-9-4711 (operator), Helsinki, Finland, or your local centre for detoxification.

2. Hazards Identification

Health hazard of the chemical mixture as a whole: No information available. It is however recommended to prevent ingestion and skin contact.

- Proteinase K: May cause respiratory tract, skin and eye irritation. May cause allergic reactions.
- Glycerol: Irritating to eyes, skin and respiratory system.

3. Composition and Information on Ingredients

Description

The concentrations of the following ingredients in the purchased product exceed the limits for which notification is needed according to Regulation (EC) N:o 1907/2006 of the European Parliament and Council. Glycerol is not classified hazardous according to Regulation (EC) N:o 1907/2006 EPC.

Hazardous ingredients:

| CAS number or other code | Name of the ingredient | Concentration % w/w | Warning symbol, R phrases and S phrases | Tube containing the ingredient |
|--------------------------|------------------------|---------------------|--|--------------------------------|
| 39450-01-6 | Proteinase K | 2 | X _n R: 22, 36/37/38, 42/43 S: 24, 26, 36/37/39 | Additive |
| 56-81-5 | Glycerol | <56 | | Loading dye |

Full chemical name of the ingredient (CAS number: name):**Other information:** R and S phrases: see section 16.

4. First Aid Measures

Special instructions: Wearing of gloves and other protective clothing are advised.**Inhalation:** Remove from exposure immediately. Get medical attention if needed.

Proteinase K: Perform artificial respiration if necessary.

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Skin: Wash the area of exposure with soap or mild detergent and plenty of water until no evidence of chemical remains (for at least 15 minutes). Remove contaminated clothing, jewellery and shoes immediately. Wash clothing before reuse. Get medical attention immediately.

Splashes in eyes: Wash the eyes with water or saline for at least 15 minutes, lifting upper and lower eyelids occasionally until no evidence of chemical remains. Get medical attention immediately.

Ingestion: Seek medical advice. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side.

Information to doctor or other trained persons giving first aid: No specific antidote. Treat symptomatically and supportively.

5. Fire-Fighting Measures

Suitable extinguishing media: Alcohol resistant foam, CO₂, dry chemical.

Extinguishing media which must not be used for safety reasons:

Special exposure hazards in a fire: Toxic gases and vapors heavier than air may be released if glycerol is involved in a fire. Glycerol decomposes upon heating above 290°C forming corrosive gas (acrolein).

Special protective equipment for a fire: Wear full protective clothing and approved self-contained breathing apparatus with full face piece operated in the pressure demand.

Other instructions: Move container from fire area if you can do it without risk. Do not scatter spilled material with high-pressure water streams. Dike fire-control water for later disposal. Use agents suitable for type of surrounding fire. Avoid breathing hazardous vapors, keep upwind.

6. Accidental Release Measures

Personal precautions: Wear appropriate personal protective equipment.

Environmental precautions: Avoid heat, flames and other sources of ignition.

Methods for cleaning up: Absorb liquid spills with a dry absorbent. Collect spill in appropriate sealed container and hold for waste disposal.

Other instructions: Ventilate area. Do not flush spilled material into sewer.

7. Handling and Storage

Handling: Handling and storage in accordance with all current regulations and standards.

Storage: Keep separated from incompatible substances. Store in a tightly closed container, in a cool, dry, ventilated area.

8. Exposure Controls/Personal Protection

Technical measures for exposure controls: Use adequate ventilation. Provide access to a safety shower and eye-wash in the immediate work area.

Limit values for workplace air:

TLV values: Glycerol TLV (mist): 10 mg/m³ (TWA) (ACGIH 2006).
HTP 20 mg/m³ / 8h (Finland)

Other information on limit values:

Personal protective equipment

Special instructions for protection and hygiene:

Respiratory protection: Proteinase K: Under frequent use or heavy exposure respiratory protection may be needed.
Glycerol: If mist or vapors are present above TLV use an approved respirator.

Hand protection: Wear protective, impervious, chemical resistant gloves.

Eye protection: Safety glasses with side shields or goggles.

Skin protection: Wear chemical resistant clothing.

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12. Ecological Information

Persistence in the environment

Biodegradation:

Chemical degradation:

Bioaccumulation:

Mobility:

Toxic effects on organisms

Aquatic toxicity:

Other toxicity: Glycerol: Substance generally non-hazardous to the water supply.

Other information: Keep out of water supplies and sewers.

13. Disposal Conditions

Dispose in accordance with all applicable regulations. Keep out of water supplies and sewers.

14. Transport Information

UN number:

Packaging category:

Land transport

Transport class:

Risk code:

Name according to bill of freight:

Other information:

Sea transport

IMDG class:

Correct technical name:

Other information:

Air transport

ICAO/IATA class:

Correct technical name:

Other information:

15. Regulatory Information

Chemical Safety Assessment: Not required.

Information on the warning label

Letter code of the warning symbol and indications of danger for the preparation:

Names of the ingredients given on the warning label:

R phrases:

S phrases:

Special regulations on certain preparations:

National regulations:

16. Other Information

R phrases used

22: Harmful if swallowed.

36/37/38: Irritating to eyes, respiratory system and skin.

42/43: May cause sensitization by inhalation and skin contact.

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S phrases used

24: Avoid contact with skin.

26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

Directions for use

Other information

The information here is believed to be correct as of the date hereof but is provided without warranty of any kind. The recipient of our products is responsible for observing any laws and guidelines applicable.

Additional information available from

Finnzymes Oy

Sources of information used in the compilation of the safety data sheet

MSDS Canadian Centre for Occupational Health and Safety

MSDS US Centre for Occupational Health and Safety

International Chemical Safety Cards

Revisions