Altogen Biosystems

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SAFETY DATA SHEET

03/03/2021

1 Identification of the substance/mixture and of the company/undertaking

· Product identifier

· Product name: Liver In Vivo Transfection Reagent

· Catalog number: 5060, 5061, 5062 · Chemical name: Not applicable

- · Application of the substance / the preparation: Laboratory chemicals
- **REACH registration number**: No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.
- · Relevant identified uses of the substance or mixture and uses advised against
 - ·Relevant identified uses: General Purpose Reagent
 - ·Use Description Code: SU22 Public domain (administration, education, entertainment, services, craftsmen), PROC15 Use as a laboratory reagent, PC21 Laboratory chemicals, SU24 -

Scientific research and development • Uses advised against: Not for consumer use

- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

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· Further information obtainable from:

Please visit our site: http://www.altogen.com Contact us at e-mail: techserv@altogen.com

· Emergency telephone number:

For Chemical Emergency (Spill, Leak, Fire, Exposure or Accident), Call CHEMTREC Day or Night

Domestic North America: 1-800-424-9300

International: 1-703-527-3887

2 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description:** Solution, consisting of the following components
- · Components:

7732-18-5 Water >90%

· Other components:

Components not listed here are not hazardous to health or their concentrations do not exceed the limits specified in the OSHA Hazard Communication Standard 29 CFR 1910.1200.

No components need to be disclosed according to the applicable regulations.

3 Hazards identification

- · Classification of the substance or mixture: Not a hazardous substance or mixture
- · GHS Label elements, including precautionary statements: Not a hazardous substance or mixture
- · Hazards not otherwise classified (HNOC) or not covered by GHS: None
- · Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008 [CLP]

Physical Hazards: Not Hazardous **Health Hazards:** Not Hazardous

Environmental Hazards: Not Hazardous

Classification according to Directive 67/548/EEC or 1999/45/EC: Not Hazardous

Additional Information: Not applicable

· Label elements

· Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms: No pictogram

Signal word: None

Hazard statements: Not applicable

Precautionary statements: Observe the general safety regulations when handling chemicals **Other hazards:** this mixture does not contain any substances that are assessed to be a PBT or vPvB

- · Classification system:
- · NFPA ratings (scale 0 4)

Health = 0

Fire = 0

Reactivity = 0

· HMIS-ratings (scale 0 - 4)

Health = 0

Fire = 0

Reactivity = 0

· OSHA Hazard Overview (Criteria according to 29CFR1910.1200)

Not applicable

· Target Organs

Not applicable or unknown

4 First aid measures

- General information: No special measures required.
- · **After inhalation:** Not expected to be an inhalation hazard under anticipated conditions of normal use. Supply fresh air; consult doctor in case of complaints.
- · **After skin contact:** Generally the product does not irritate the skin; rinse with plenty of water. Immediate medical attention is not required.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor

5 Firefighting measures

· Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam

- · Special hazards arising from the substance or mixture: No further relevant information available
- · Protective equipment: No special measures required
- · Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures:

Not required

· Environmental precautions:

Dilute with plenty of water

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust)

· Reference to other sections:

For disposal see section 13

7 Handling and storage

· Handling. Precautions for safe handling:

No special measures required

· Information about protection against explosions and fires:

No special measures required

· Storage:

Keep container tightly closed in a dry and well ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature 2 - 8 $^{\circ}$ C

Storage class (TRGS 510): 12: Non Combustible Liquids

· Requirements to be met by storerooms and receptacles:

No special requirements

· Information about storage in one common storage facility:

Not required

· Specific end use(s):

No further relevant information available

8 Exposure controls/personal protection

· Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· Additional information:

The lists that were valid during the creation were used as basis

- · Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed

· Breathing equipment:

Not required

· Protection of hands:

Protective gloves. The glove material has to be impermeable to the product/ the substance/ the preparation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application

· Eve protection:

Use of goggles is recommended

· Environmental exposure controls:

No special environmental precautions required. Dilute with plenty of water.

9 Physical and chemical properties

· General Information

· Appearance:

Form: Liquid
Color: Colorless
Odor: Odorless

· Change in condition

Melting point/Melting range: Undetermined Boiling point/Boiling range: Undetermined

· Flash point: Not applicable

· Auto igniting: Product is not self-igniting

· Danger of explosion: Product does not present an explosion hazard

Density: Not determined
 Solubility in / Miscibility with
 Water: Fully miscible

· Other information: No further relevant information available

10 Stability and reactivity

- · Reactivity: None known
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known

11 Toxicological information

- Acute toxicity: No evidence indicating acute toxicity.
- Primary irritant effect: on the skin: No irritant effect on the eye: No irritating effect
- · Sensitization: No sensitizing effects known
- · Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

- · Reproductive toxicity No data available
- · Specific target organ toxicity single exposure No data available
- · Specific target organ toxicity repeated exposure

No data available

· Aspiration hazard

No data available

· Additional Information

RTECS: Not available

· **Additional toxicological information:** The product is not subject to classification according to internally approved calculation methods for preparations. When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information

- · Aquatic toxicity: No further relevant information available
- · Persistence and degradability: No further relevant information available
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available
- Results of PBT and vPvB assessment: This mixture does not contain any components assessed as PBT or vPvB
- · Additional ecological information:
- · General notes: Generally not hazardous for water

13 Disposal considerations

- Waste treatment methods: Minimize production of waste wherever possible. This material and its container must be disposed of in according to approved disposal technique.
- · Recommendation: Smaller quantities can be disposed of with household waste
- · Uncleaned packagings: Empty containers may retain some product residues.
- · Recommendation: Disposal must be made according to official regulations
- · Recommended cleansing agent: Water, if necessary with cleansing agents

14 Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

· Not classified as dangerous in the meaning of transport regulations.

UN-NumberDOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name · DOT, ADR, ADN, IMDG, IATA	Void
 Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class 	Void
Packing groupDOT, ADR, IMDG, IATA	Void
 Environmental hazards Marine pollutant:	No
· Special precautions for user	N/A
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	N/A

15 Regulatory information

· Substances of Very High Concern:

None

· Restricted substances under EC 1907/2006, Annex XVII:

None

· Restricted substances under Annex V of Regulation (EC) No 689/2008:

None

• Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC:

None

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients are listed

• Section 313 (Specific toxic chemical listings):

None of the ingredients are listed

• Section 302 (Specific toxic chemical listings):

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

• TSCA (Toxic Substances Control Act):

None of the ingredients are listed

· California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

· Chemicals known to cause cancer:

None of the ingredients are listed

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed

· Cancerogenicity categories

• EPA (Environmental Protection Agency)

None of the ingredients are listed

· IARC (International Agency for Research on Cancer)

None of the ingredients are listed

· NTP (National Toxicology Program)

None of the ingredients are listed

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients are listed

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed

· German Water hazard classes (Wassergefährdungsklassen)

Not classified

· Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act

· Product related hazard information:

Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations according to directives on hazardous materials.

16 Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

This information is based on our present knowledge and shall be used only as a guide. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Altogen Biosystems is not held liable for any damage resulting from handling or from contact with the above mentioned products.

SDS has been prepared in accordance with ISO 11014-1 Standard and OSHA Hazard Communication Standard 29 CFR 1910.1200.

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

Altogen Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Direct technical questions and/or concerns to e-mail: techserv@altogen.com

See www.altogen.com or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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