


cDNA SYNTHESIS BUFFER – SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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|--|---|
| 1.1 Product Identifier Product Catalog: cDNA Synthesis Buffer CAS Number: N.A. |  |
| 1.2 Product use Laboratory research. | |
| 1.3 Details of the Supplier of the Safety Data Sheet Spatial Transcriptomics AB Street Address: Södra Fiskartorpsvägen 15 C City: Stockholm Province: Stockholm Postal Code: 114 33 Phone number: +46736697828 Email: sg@spatialtranscriptomics.com | |
| 1.4 Emergency telephone number +44 (0)870 8200418 (CHEMTREC) | |

SECTION 2 – HAZARDS IDENTIFICATION

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| 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 Acute toxicity, Oral, H300 Skin corrosion/irritation, (Category 2), H315 Serious Eye Damage/Irritation, (Category 2), H319 Classification according to EU Directives 67/548/EEC or 1999/45/EC T+ Very toxic R28 For the full text of the R-phrases mentioned in this Section, see Section 16. 2.2 Label elements Labelling according to Regulation (EC) No 1272/2008 The substance is classified and labelled according to the CLP regulation. |
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Hazard pictograms

Signal word: Danger

Hazard statement(s)

H300 Fatal if swallowed
 H315 Causes skin irritation
 H319 Causes serious eye irritation

Precautionary statement(s)

P264 Wash hands thoroughly after handling.
 P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

Hazard statements

H300 Fatal if swallowed
 H302 Harmful if swallowed
 H315 Causes skin irritation
 H319 Causes serious eye irritation

Precautionary statements

P264 Wash hands thoroughly after handling
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water
 P332 + P313 If skin irritation occurs: Get medical advice/attention
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P337 + P313 If eye irritation persists: Get medical advice/attention
 P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3 – COMPOSITION /INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous ingredients according to Regulation (EC) No 1272/2008

| Ingredient | Concentration, % (v/v) | Cas # | EC Number | Index number | Classification |
|------------|---------------------------|-------|--------------|-----------------|----------------|
|------------|---------------------------|-------|--------------|-----------------|----------------|

| | | | | | |
|---|------|---------|-----------|--------------|--|
| Actinomycin D | 12 | 50-76-0 | 200-063-6 | | Acute Tox. 2 - H300 |
| (R*,R*)-1,4-dimercapto-2,3-butanediol (DTT) | 0,6 | 60-24-2 | 200-464-6 | 605-001-00-5 | Eye Irrit. 2 - H319 Skin Irrit. 2 - H315 Acute Tox. 4 - H302 |
| BSA | 1 | | | | |
| First Strand Buffer | 24 | | | | |
| dNTP mix | 6 | | | | |
| DMSO | 0,14 | | | | |

SECTION 4 – FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5 – FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, sulfur oxides.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid substance contact. Do not inhale steams/aerosols. Ensure adequate ventilation

6.2 Environmental precautions

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (AppliSorb). Dispose of the material collected according to regulations. Ensure adequate ventilation. Clean up affected area.

6.4 Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Store in cool place. 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.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

8.2 Exposure controls

Appropriate engineering controls: General industrial hygiene practice.

Personal protective equipment

Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Full contact Material: Nitrile rubber Minimum layer thickness: 0,4 mm Break through time: 480 min Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0,2 mm Break through time: 60 min Material tested:Dermatril® P (KCL 743 / Aldrich Z677388, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario

Body Protection impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure Do not let product enter drains.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information

Appearance

Form Liquid

Colour Yellow

Odour No data available

pH-value at 20 °C No data available
Melting point No data available
Boiling point/Boiling range No data available
Flash point No data available
Evaporation rate No data available
Flammability (solid, gas) No data available
Upper/lower flammability or explosive limits
No data available
Vapour pressure No data available
Vapour density No data available
Relative density No data available
Water solubility soluble
Partition coefficient No data available
Auto-ignition temperature No data available
Decomposition temperature No data available
Viscosity No data available
Explosive properties No data available
Oxidizing properties No data available

9.2 Other information

No data available

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity

No further relevant information available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions known. Violent reactions possible with: strong oxidants
Forms explosive gas mixture with air.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Metals, oxidizing agents.

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides, Nitrogen oxides. Other decomposition products - No data available. In the event of fire: see section 5.

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity (Actinomycin D)

LD50 Oral - rat - 7.2 mg/kg

Remarks: Diarrhoea

Blood: Other changes

Skin corrosion/irritation

Actinomycin D: No data available

DTT: Irritating to skin.

Serious eye damage/eye irritation

Actinomycin D: No data available

DTT: Risk of serious damage to eyes.

Respiratory or skin sensitization

Actinomycin D: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

DTT: No data available

Germ cell mutagenicity

Actinomycin D: Laboratory experiments have shown mutagenic effects in (DNA damage, liver, rat).

DTT: No data available

Carcinogenicity

Actinomycin D: No data available

DTT: Conclusive but not sufficient for classification.

Reproductive toxicity

Actinomycin D: Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

DTT: Conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

Actinomycin D: No data available

DTT: Conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure

Actinomycin D: No data available

DTT: Conclusive but not sufficient for classification.

Aspiration hazard

No data available

Additional Information

Actinomycin D: RTECS: AU1575000 Anemia, Drowsiness, Weakness

Liver - Irregularities - Based on Human Evidence

DTT: No data available

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish No information available.

Toxicity to daphnia and other aquatic invertebrates No information available.

Toxicity to algae No information available.

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

Soil/water partition

coefficient (K_{oc}): No data available

Mobility: No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No known significant effects or critical hazards

SECTION 13 – DISPOSAL CONSIDERATION

13.1 Waste treatment methods

Recommendation: Disposal must be made in compliance with respective national regulations to official regulations. Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14 – TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 3172

IMDG: 3172

IATA: 3172

14.2 UN proper shipping name

ADR/RID: TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S. (Dactinomycin)

IMDG: TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S. (Dactinomycin)

IATA: Toxins, extracted from living sources, liquid, n.o.s. (Dactinomycin)

14.3 Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

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

This safety datasheet complies with the requirements of **Regulation (EC) No. 1907/2006**.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16 - OTHER INFORMATION

Full text of R-Statements referred to under sections 2 and 3.

| | |
|-----|--------------------------|
| T+ | Very toxic |
| R28 | Very toxic if swallowed. |

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: Spatial Transcriptomics AB

Contact: Dr. Stefania Giacomello

Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organisation ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal

Safety Data Sheet (SDS) – cDNA Synthesis Buffer

| | | | |
|--|------------------|------------------|--|
| concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative. | | | |
| Hazard | HFPA Hazard Code | HMIS Hazard Code | Disclaimer |
| Health | | | <p>This SDS is intended for research use only and to be used in laboratories. The SDS is intended to provide a brief summary of our knowledge and guidance regarding the use of the materials in this kit. The information contained here has been compiled from sources considered by ST to be dependable and is accurate to the best of the company’s knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations.</p> <p>This information is offered in good Faith. Each user of this kit need to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage or release to the environment. ST assumed no responsibility for injury to the recipient or third person for any damage to any property resulting from misuse or the product.</p> |

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