MATERIAL SAFETY DATA SHEET

Prepared according to Regulation (EC) 1907/2006 – REACH and 1272/2008 - CLP.

Version 1, Revision date: 14/06/2022

SECTION 1: PRODUCT IDENTIFICATION

Product name: myMATRIX MSC, myMATRIX iPSC, isoMATRIX
Product IDs: CXX01, CXX01/5; CXX05, CXX05/5; CXX04, CXX04/5

The products are intended to be used for culture of mesenchymal stromal cells (myMATRIX MSC), culture of induced pluripotent stem cells (myMATRIX iPSC), or the isolation of mesenchymal stromal cells from tissue explants (isoMATRIX). The offered cell culture well plates and flask are coated with a mixture of extracellular matrix mimetic materials. The cell culture ware is composed of polystyrene (PS) and the coating comprises mixtures of polysaccharides, polyethylene glycol, and peptides.

SECTION 2: HAZARDS IDENTIFICATION

This product mixture does not meet the criteria for classification as hazards in accordance with Regulation (EC) No 1272/2008. It is provided in accordance with good safety practice.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients: The product is prepared aseptically under clean room conditions by coating cell culture ware with mixtures of polysaccharides and a polymer conjugate. At the applied concentrations, all coating mixtures represent less than 0.1% of the final product.

1. Main constituent: Cell culture well plate made of PS with a lid with condensation ring or cell culture flask made of PS with a filter cap
   Polystyrene CAS No.: 68441-35-0
2. The polysaccharide is:
   Dextran sulfate CAS No.: 9011-18-1
3. The peptide-PEG conjugate contains a peptide sequence conjugated to PEG:
   PEG CAS No.: 25322-68-3

Chemical Structure:

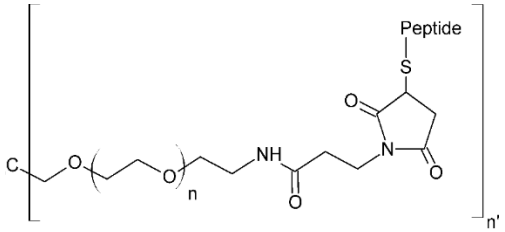

Figure 1. Chemical structure of peptide-PEG conjugate.

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The average molecular weight of the peptide-PEG conjugates is ~ 25,000 Da.
HAZARDOUS: Contains no substance classified as hazardous in concentrations, which should be taken into account according to Regulation (EC) No 1272/2008 directives.

SECTION 4: FIRST AID MEASURES

Inhalation:	Not anticipated under recommended usage conditions. After inhalation of decomposed products, remove the affected person to a source of fresh air and keep calm. Provide medical aid.
Ingestion:	Not anticipated under recommended usage conditions.
Skin contact:	Not anticipated under recommended usage conditions. Areas affected by molten material should be quickly placed under cold running water
Eye contact:	Not anticipated under recommended usage conditions. In case of contact with decomposed products, flush eyes with plenty of water. Get medical advice if irritation develops.

Note to physician: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing media:	Water, dry extinguishing media, carbon dioxide, foam
Specific hazards:	Principal toxicant in the smoke is carbon dioxide, carbon monoxide.

Special fire-fighting procedures: Use media appropriate for primary cause of fire.

Further information:	Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Aspirate or sweep up any spills from liquids added to the culture ware. All spilled material must be removed immediately to prevent slipping accidents. Dispose waste in accordance with local or national regulations. Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment.

SECTION 7: HANDLING AND STORAGE

Protect against moisture. Protect against physical damage. Do not freeze either. Do not autoclave. To prevent fire related hazards, protect the product from heat and fire. Keep the product unopened, sealed away from light for long time storage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

No exposure limit established. As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substances. Wear appropriate personal protective equipment, gloves, and safety glasses for eye protection.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form:	Cell culture plates and flasks, clear bottom, with lid or cap
Coating Color:	Colorless, clear to slightly structured
Odor:	Faint
Softening temperature:	> 60 °C (DIN/EN/ISO 306:2013)
Ignition temperature:	> 400 °C

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable under ordinary conditions of use and storage. Thermal decomposition may occur above 60 °C. To avoid thermal decomposition, do not heat.
Hazardous decomposition products:	Carbon dioxide and carbon monoxide may form when heated due to decomposition.
Hazardous polymerization:	The product is prepared using a stable thermoplastic, with no chemical reactivity.
Incompatibilities:	Incompatible with polymerization catalysts (peroxides, persulfates) and accelerators, strong oxidizers, strong bases and strong acids.
Conditions to avoid:	Incompatibles and heat.

SECTION 11: TOXICOLOGICAL INFORMATION

General information: The mixtures have not been tested for their effect on health. The mixtures contain polyanionic substances, which possess many biological activities in vivo. However, since the mixtures are provided at concentrations of less than 0.1% of the total product weight and individual substrates are poorly absorbed by the skin, no toxic effects are expected under normal operating conditions provided the recommended precautions. Reported toxicity of individual substrates used for the mixture are described in the following:

PEG:	The oral rat LD50 is 31.6 g/kg.
Dextran sulfate:	The oral rat LD50 is 20.6 g/kg

Potential effects are acute toxicity, behavior – somnolence, ataxia and diarrhea.
No component of this product present at levels higher than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC, if used as intended.

SECTION 12: ECOLOGICAL INFORMATION

Environmental fate: No information
Environmental toxicity: No information

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SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose the product or any contents into the environment. Dispose of container and unused contents in accordance with federal, state and local requirements. Processing, use or contamination of this product may change the waste management options.

SECTION 14: TRANSPORT INFORMATION

No restrictions for transport (ADR/RID, IMDG or ICAO/ATA)

SECTION 15: REGULATORY INFORMATION

For this product a chemical safety assessment was not carried out. Contains no REACH Annex XIV substrates nor substrates with REACH Annex XVII restrictions.

SECTION 16: OTHER INFORMATION

The product is intended for research purposes only as a laboratory consumable for cell culture. The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. The information contained herein is provided in good faith and is as accurate as possible but makes no representation as to its comprehensiveness or accuracy. However, neither denovoMATRIX GmbH, nor any other supplier of the products assumes any liability whatsoever for the accuracy or completeness of the information contained herein. The provided information relates only to the designated product and is not valid for any other product resulting as a modification or combination or any material or processes, not specified in this text.

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