

Material Safety Data Sheet (MSDS) for Frozen and Living Cell Cultures (Biosafety Level 1 and 2)



1. Identification of the Product and the Establishment

Product name: Various human and animal cell cultures at Biosafety Level 1 or 2, deep-frozen and/or growing culture, supplied by CLS Cell Lines Service GmbH. The relevant cell line data can be found at: www.clsgmbh.de

CLS Catalog Number: various

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2. Hazards Identification

Categorized as non-infectious and non-toxic

GHS Symbol: NA

Signal Word: NA

HMIS Rating: Health: 0 Flammability: 0 Reactivity:0

NFPA Rating: Health: 0 Flammability:0 Reactivity:0

Biological Hazards

For Biosafety Level 1 Cell Cultures

Handle as a potentially biohazardous material at least under Biosafety Level 1 containment. Cell line is not known to cause disease in healthy humans. However it can never be excluded. Cell line has **NOT** been screened for Hepatitis B, human immunodeficiency viruses or other adventitious agents, unless otherwise reported on the Certificate of Analysis or the product information sheet. However personal protective equipment (PPE) and procedures should be followed at all means when working with the cell line.

For Biosafety Level 2 Cell Cultures

Handle as a potentially biohazardous material at least under Biosafety Level 2 containment. These cell lines are associated with human disease, hazards include: percutaneous injury, ingestion, mucous membrane exposure. Cell line has **NOT** been screened for Hepatitis B, human immunodeficiency viruses or other adventitious agents, unless otherwise reported on the Certificate of Analysis or the product information sheet. However personal protective equipment (PPE) and procedures should be followed at all means when working with the cell line.

Further information can be accessed on CLS Cell Lines Service Website www.clsgmbh.de

Chemical Hazards:

Frozen cell cultures may contain 5 to 10% (v/v) dimethyl sulphoxide (DMSO). DMSO may be harmful and toxic if in contact with skin or ingested, (R23/24/25), irritating to eyes and respiratory system (R36/37/38). Avoid skin contact, eye contact, digestive and respiratory epithelium (S24/25) if thawed. Person handling the cells should wear PPE (S36/37).

Physical Hazards:

There is a small risk that frozen vials may be pressurized, because of the trapped liquid nitrogen and could explode on warming. Such a risk will be increased if the vial has been shipped to the customer in a liquid nitrogen container (dry-shipper). Wear protective equipment when handling such packages.

3. Composition / Information on Ingredients

Various animal and human cell cultures at Biosafety level 1 or 2
Frozen or growing cells are shipped in a yellow, or pink liquid cell culture media (pH 6-8), which may contain inorganic salts, vitamins, amino acids, carbohydrates, other nutrients and phenol red dissolved in water. Frozen cultures may also contain 5-10% DMSO as a cryoprotectant.

Unit: cryovial; frozen liquid in a small plastic container (vial) or
Flask: living cell culture in a plastic flask

Cryovial:

Hazardous Ingredient(s)	CAS no.	Percentage	EC no.
Dimethyl Sulfoxide	67-68-5	5-10	200-664-3

Non-Hazardous Ingredient(s)

Non-Hazardous Ingredient(s)	Percentage
Cell culture media, supplemented for freezing	60-80
FBS(Fetal Bovine Serum)	0-20
Cells	1

4. First Aid Measures

In all means, report to your Safety Officer and seek Medical Advice immediately

Skin contact:

Wash off immediately with plenty of water and soap. Remove all contaminated clothing

Eye contact:

Flush eyes immediately with water for 10-15 minutes.

Ingestion:

If the material was swallowed, rinse the mouth with water. If the person is unconscious seek emergency medical attention. Avoid vomiting unless directed by a medical doctor.

Inhalation: If the person is unconscious seek emergency medical attention. Remove person to fresh air

5. Fire Fighting Measures

General: During a fire, irritating and toxic gases may be generated by thermal decomposition.

Unsuitable Extinguisher medium: N/A

Autoignition Temperature: N/A

Explosion limits: N/A

Extinguisher medium: Use medium suitable for surrounding environment

Protective equipment for firefighting: N/A

6. Accidental Release Measures

Use personal protective equipment when working with the cell lines, including safety glasses, laboratory gloves and appropriate laboratory clothing to prevent skin exposure. Do not open primary containers if not authorized.

Do not flush into surface water.

Clean contaminated surface thoroughly. Autoclave before disposal into appropriated containers.

If spilled, follow appropriate cleaning procedure. Use absorbent material and disinfect. Wash contaminated clothing separately. Wash with soap and water Additional personal protective equipment for cleaning may be mandatory.

7. Handling and Storage

Handling and store according to instructions on product information sheet.

Follow established laboratory procedures when handling.

Open only under a sterile workbench. Wear protective equipment.

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Handle as if containing infectious material.

Storage:

Keep cryovial at -150°C (freezer) or at -196°C (liquid nitrogen vapor phase).

8. Exposure Controls / Personal Protection

Hygienic measures:

Avoid the contact with skin, eyes and clothing. Keep away from food and drinks. Wash hands immediately after handling the product.

Normally, no respiratory protective equipment is required. Use fume hood to keep airborne concentrations low. No exposure limits are known.

Use protective gloves and safety glasses and wear a lab coat while handling the product. European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Handle as for Hazard Group 2.

9. Physical and Chemical Properties

Physical Properties:

Frozen or Liquid, no information available for cell cultures.

Chemical Properties:

Frozen cell cultures may contain DMSO. DMSO is stable. It is incompatible with a very wide range of materials, including acid chlorides, strong acids, strong oxidizing agents, strong reducing agents, phosphorus halides, moisture, copper wool + trichloroacetic acid, hygroscopic.

10. Stability and Reactivity

Chemical Stability: Stable

Reactivity data: Stable

Conditions to Avoid: N/A

Hazardous Decomposition Products: N/A

Hazardous Polymerization: will not occur

11. Toxicological Information

Not hazardous according to Directive 1272/2008 (CLP)

No toxic or exposure data available for cell lines, however general protection procedures occur. Wear appropriate protection equipment. Kindly note the toxicological properties have not been fully reported.

Toxicity data for DMSO:

ORL-RAT LD50 14500 mg kg⁻¹

IVN-MAN TDLO 686 mg kg⁻¹

IVN-MUS LD50 3100 mg kg⁻¹

IVN-DOG LD50 2500 mg kg

ORL-MAM LD50 21400 mg kg⁻¹

IPR-RAT LD50 8200 mg kg⁻¹

ORL-BWD LD50 100 mg kg⁻¹

12. Ecological Information

No ecological information available.

13. Disposal Considerations

Follow established procedures for Containment (Biosafety) Level 1 and 2. Hazardous waste generators are required. Please check if discarded chemical is classified as a hazardous waste. Follow all national, regional and local regulations.

14. Transport Information

Non-hazardous, non-toxic for air, sea and land transportation. Not classified as dangerous goods, not subject to IATA or the European Agreement concerning international Carriage of Dangerous Goods.

Additional information may occur for the carriage of Dangerous Goods by road and air, regarding classification, packaging and labeling, as cryovials (deep-frozen ampoules) must be shipped on dry ice or liquid nitrogen. The package will indicate all required information.

Regulations for labeling:

In case of dry ice: UN no. 1845 label and G9– dry ice, Packaging group 3

In case of liquid nitrogen: UN no.: 1013, Cryo can may contain porous material fully absorbed with liquid nitrogen

15. Regulatory Information

All necessary licenses for import, holding, transfer and export are in place from CLS. Recipient only must provide evidence of permits and licenses required by law for receiving and handling. Substances are for research use only.

16. Other Information

Recommended use: For in vitro research use only.

Disclaimer:

In the event of an accident involving exposure of a person to the material contained in the samples, contact CLS during normal working hours. Refer to section 1 for full contact details.

The information provided in the present Material Safety Data Sheet is believed to be correct at the date of publication based upon data available to CLS. No guarantee is given for its accuracy or completeness, but is intended as guidance only. Users should make independent decision and assessments regarding the completeness based on their needs and data available to them. Biological material may be hazardous and should be used with caution.

CLS Cell Lines Service GmbH shall not be held liable for any damage resulting from handling or from contact with the product.

The MSDS was written in accordance with the European Union Council Directive 1907/2006 and 1272/2008 and European Union Council Directive 98/24/EC (April 07, 1998) for the protection of the health and safety of workers from risks related to chemical agents, fourteenth individual directive within the meaning of Article 16(1) of the Directive 89/391/EEC. Commission Directive 2001/58/EC (July 27, 2001) amending for the second time Directive 91/155/EEC defining and laying down the detailed arrangements for the system of information relating to dangerous preparations in implementation of Article 14 of the European Parliament Directive 1999/45/EC and relating to dangerous substances in implementation of Article 27 of Council Directive 67/548/EEC.