

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product Identifiers

Product Name: Human iPSC-Derived Liver Organoid Expansion and Maintenance medium

Catalog Number: RIPO-RWM010

UFI: No information available.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Uses: For Research Use Only.

1.3 Details of the supplier of the safety data sheet

Switzerland:

Company: ACROBiosystems AG

Address: Switzerland Innovation Park Basel Area AG Lichtstrasse 35 4056 Basel

Internet: www.acrobiosystems.com

Telephone: +41-800-040-012

Fax: +1-888-377-6111

Email Address: Customerservice@acrobiosystems.com

China: (Headquarter and Manufacturing Center)

Company: ACROBIOSYSTEMS CO., LTD

Address: FLOOR 4, BUILDING 4. NO.8 HONGDA NORTH ROAD, BDA, BEIJING, CHINA

Telephone: +86-010-67855298

Fax: +1-888-377-6111

Email Address: Customerservice@acrobiosystems.com

USA:

Company: Acrobiosystems Inc.

Address: 1 Innovation Way, Newark, DE 19711, USA

Telephone: +1-800-810-0816

Fax: +1-888-377-6111

Email Address: Customerservice@acrobiosystems.com

1.4 Emergency Telephone Number

Emergency Tel: Switzerland: +41-800-040-012 / China: +86-010-67855298 / USA: +1-800-810-0816.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

This substance does not meet the classification criteria of the EC Directives 67/548/EEC, 1999/45/EC, 1272/2008 [CLP], 1907/2006/EC, GHS and 29 CFR 1910.1200 [OSHA].

2.2 Label Elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other Hazards - None

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

- This product does not contain hazardous chemicals at concentrations of 1% or greater. This product is not known to contain carcinogens at concentrations of 0.1% or greater.
- This product does not contain gaseous or non-gaseous mixtures above the exposure limits. This product is not known to contain persistent, bioaccumulative and toxic substances and endocrine disrupting properties. This product does not contain any substance classified as skin sensitizer.
- This product does not contain any substance in nanoform.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Advice

Consult a doctor and show this safety data sheet.

If Inhaled

Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

In Case of Skin Contact

Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.

In Case of Eye Contact

Flush with copious amounts of water for at least 15 minutes. Consult a doctor.

If Swallowed

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Not applicable.

4.3 Indication of immediate medical attention and special treatment needed

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

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

In combustion, may emit toxic fumes.

5.3 Precautions for fire-fighters

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.

6.4 Reference to other sections

For required personal protection equipment see section 8. For disposal see section 13.

7. HANDLING AND STORAGE**7.1 Precautions for safe handling**

Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure. Replace the contaminated clothing immediately and wash hands and face after using of the substances.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.

7.3 Specific end use(s)

In addition to use mentioned in the Section 1.2, unforeseen other specific end uses.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 Control parameters****Components with workplace control parameters**

Contains no substances with occupational exposure limit values and biological limit values.

Derived No effect level (DNEL) & Predicted No Effect Concentration (PNEC)

No data available.

8.2 Exposure controls**Appropriate Engineering Controls**

Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

Personal Protection Equipment

Eye / Face Protection

Use appropriate safety glasses.

Skin Protection

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

Body Protection

Wear appropriate protective clothing.

Respiratory Protection

If risk assessment indicates necessary, use a suitable respirator.

Environment exposure controls

No data available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Lyophilized white powder or clear liquid.	Vapor Pressure	No data available.
Odor	Little to none.	Vapor Density	No data available.
Odor Threshold	No data available.	Relative Density	No data available.
pH	No data available.	Solubility(ies)	Soluble
Melting / Freezing Point	No data available.	Partition Coefficient	No data available.
Boiling Point / Range	No data available.	Autoignition Temperature	No data available.
Flash Point	No data available.	Decomposition Temperature	No data available.
Evaporation Rate	No data available.	Viscosity	No data available.
Flammability (Solid, Gas)	No data available.	Explosive Properties	No data available.
Upper / Lower Flammability or Explosive Limits	No data available.	Oxidizing Properties	No data available.

9.2 Other safety information

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4 Conditions to avoid

Heat, moisture.

10.5 Incompatible materials

Strong acids / alkalis, strong oxidising / reducing agents.

10.6 Hazardous decomposition products

Under recommended conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data, the classification criteria are not met.

Skin Corrosion / Irritation

Classified based on available data, the classification criteria are not met.

Serious Eye Damage / Irritation

Classified based on available data, the classification criteria are not met.

Respiratory or Skin Sensitization

Classified based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Classified based on available data, the classification criteria are not met.

Carcinogenicity

Classified based on available data, the classification criteria are not met.

Reproductive Toxicity

Classified based on available data, the classification criteria are not met.

Specific Target Organ Toxicity-Single Exposure

Classified based on available data, the classification criteria are not met.

Specific Target Organ Toxicity-Repeated Exposure

Classified based on available data, the classification criteria are not met.

Aspiration Hazard

Classified based on available data, the classification criteria are not met.

Symptoms / Routes of Exposure

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: There may be irritation of the throat.

Skin: There may be mild irritation at the site of contact.

Eyes: There may be irritation and redness.

Delayed / Immediate Effects: No known symptoms.

11.2 Information on other hazards**Endocrine disrupting properties**

No data available.

Other information

None

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 Additional information

None

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

Contaminated Packaging

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

14. TRANSPORT INFORMATION

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.

14.1 UN-Number

Not applicable.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packaging group

Not applicable.

14.5 Environmental hazards

No information available.

14.6 Special precautions for users

No information available.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010, (EU) 2017/542 and (EU) 2020/878.

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture

SVHC	EC inventory	TSCA	SARA 313	SARA 311/312	CERCLA Reportable Quantity	California Proposition 65	KECI	AIIC	ENCS
×	×	×	×	×	×	×	×	×	×

[SVHC]	Candidate list of Substances of Very High Concern for authorization under EU REACH regulation
[EC inventory]	European Inventory of Existing Commercial Chemical Substances
[TSCA]	United States Toxic Substances Control Act Inventory
[SARA 313]	Superfund Amendments and Reauthorization Act: Part 313
[SARA 311/312]	Superfund Amendments and Reauthorization Act: Part 311/312
[CERCLA Reportable Quantity]	Comprehensive Environmental Response, Compensation, and Liability Act
[California Proposition 65]	Safe Drinking Water and Toxic Enforcement Act of 1986
[KECI]	Korea Existing Chemicals Inventory
[AIIC]	Australian. Inventory of Industrial Chemical (AIIC)
[ENCS]	Japan Inventory of Existing & New Chemical Substances

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been made for this product.

16. OTHER INFORMATION

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

End of safety data sheet.