

1. Identification of the substance/preparation and the company undertaking

Identification of the substance/preparation

Product Code: ax0333c

Product Name: Differentiation Supplement A

Product Use: Media Supplement

Company/Undertaking Identification

Axol Bioscience Ltd. Roslin Innovation Centre

Charnock Bradley Building

Easter Bush Campus

Easter Bush, EH25 9RG

United Kingdom

2. Composition/Information on ingredients Hazardous/Non-hazardous Components

This product does not contain hazardous chemicals of 1% or greater. Additionally, this product is not known to contain carcinogens at concentrations of 0.1% or greater. As a result, a Material Safety Data Sheet is not required for this product.

3. Hazards Identification

3.1 Classification of the substance or mixture

This substance does not meet the classification criteria of the EC Directives 67/548/EEC, 1999/45/EC or 1272/2008.

3.2. Label elements

No label required.

3.3. Other hazards

None.

4. First Aid Measures

4.1. Skin Contact: May cause skin irritation. Wash with soap and water for 15 minutes.

4.2. Eye Contact: May cause eye irritation. Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops.

4.3. Ingestion: No recognized ingestion hazard. If swallowed, rinse out mouth with water and seek immediate medical attention.

Contact Axol Technical Support at operations@axolbio.com

- 4.4. Inhalation:** No recognized inhalation hazard. If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

5. Fire-fighting Measures

- 5.1. Special hazards arising from the substance or mixture:** The product is non-flammable and largely water soluble.
- 5.2. Suitable extinguishing media:** Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.
- 5.3. Fire Fighting Procedures:** Standard procedure for laboratory chemical fires.

6. Accidental Release Measures

- 6.1. Personal precautions**
Use personal protective equipment such as eye protections, chemical-resistant gloves and lab coat. Implement appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.
- 6.2. Environmental precautions**
No special environmental precautions required.
- 6.3. Methods and material for contamination and cleaning up:** Absorb with inert absorbent material. Place into suitable sealed containers for disposal. Wash area thoroughly after cleaning up the spill.
- 6.4. Reference to other sections**
See section 8 for additional advice on PPE and section 13 for additional advice on disposal.

7. Handling and Storage

- 7.1. Precautions for safe handling**
Handling: Always wear PPE (Respirator, Gloves and safety goggles), handle in a fume hood to avoid respiratory or eye risk.
- 7.2. Conditions for safe storage, including any incompatibilities.**
Storage: -80°C Freezer.
- 7.3. Specific end use(s)**
Specific end use(s): For research use only.

8. Exposure Controls / Personal Protection

- 8.1. Control parameters**
Exposure Limits Contains no substances with UK occupational exposure limit values.

Contact Axol Technical Support at operations@axolbio.com

8.2. Exposure controls

Engineering measures: ensure adequate ventilation such as a laboratory safety cabinet.

Personal Protective Equipment

Respiratory protection: In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection: Nitrile gloves.

Eye protection: Safety glasses.

Skin protection: Lab coat.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: No special environmental precautions required. Avoid discharge into drains and waterways whenever possible.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance:	Form: Lyophilized white powder or clear liquid. Colour: Transparent
Odour:	No data available
Odour threshold:	No data available
pH:	Approx. pH7.0-7.5
Melting point:	Approx. 0°C
Boiling point:	Approx. 100°C
Flashpoint:	No data available
Evaporation rate:	Similar to water
Flammability (gas, solids):	Not applicable
Upper/lower flammability limits:	Not applicable
Vapour pressure:	Similar to water
Vapour density:	Similar to water
Relative density:	No data available
Solubility in water:	Miscible with water
Solubility in other solvents:	No data available
Partition coefficient (log Kow):	No data available
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	Not viscous
Explosive properties:	Not classified as explosive
Oxidising properties:	Not classified as oxidising

9.2. Other information

No other data available.

10. Stability and Reactivity

10.1. Reactivity

Not considered to be a reactive material.

Contact Axol Technical Support at operations@axolbio.com

- 10.2. Chemical stability**
Stable under normal conditions.
- 10.3. Possibility of hazardous reactions**
No hazardous reactions anticipated.
- 10.4. Conditions to avoid.**
Avoid excessive heat.
- 10.5. Incompatible materials**
Strong oxidising agents.
- 10.6. Hazardous decomposition products**
No data available.

11. Toxicological Information

11.1 Information on toxicological effects

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

(a) acute toxicity	Not expected to be toxic. Contains no hazardous components above thresholds of concern.
(b) skin corrosion/irritation	Not expected to be corrosive or irritant. Contains no hazardous components above thresholds of concern.
(c) serious eye damage/irritation	Not expected to cause eye damage or irritation. Contains no hazardous components above thresholds of concern.
(d) respiratory/skin sensitisation	Not expected to cause respiratory/skin irritation. Contains no hazardous components above thresholds of concern.
(e) germ cell mutagenicity	Not expected to be mutagenic. Contains no hazardous components above thresholds of concern.
(f) carcinogenicity	Not expected to be carcinogenic. Contains no hazardous components above thresholds of concern.
(g) reproductive toxicity	Not expected to be toxic to reproduction. Contains no hazardous components above thresholds of concern.
(h) STOT- single exposure	Not expected to be toxic. Contains no hazardous components above thresholds of concern.
(i) STOT- repeated exposure	Not expected to be toxic. Contains no hazardous components above thresholds of concern.
(j) aspiration hazard	Not applicable.

Contact Axol Technical Support at operations@axolbio.com

12. Ecological Information

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

12.1. Toxicity

Not expected to be toxic to aquatic organisms, based upon consideration of the components.

12.2. Persistence and degradability

Not expected to persist in the environment.

12.3. Bioaccumulative potential

Not expected to bioaccumulate.

12.4. Mobility in soil

Expected to partition to the aqueous compartment.

12.5. Results of PBT and vPvB assessment

The mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. Other adverse effects

None identified.

13. Disposal Considerations

13.1. Waste treatment methods.

The generation of waste should be avoided wherever possible. Empty containers or liners may retain some product residue. This material and its container must be disposed of according to approved disposal technique. Disposal of this product, it's solutions or any by-products shall comply with the requirements of all applicable local, regional or national/federal regulations.

14. Transport Information

	ADR	IMDG	ICAO
14.1 UN Number	None	None	None
14.2 UN Proper shipping name	None	None	None
14.3 Transport hazard class(es)	None	None	None
14.4 Packing group	None	None	None
14.5 Environmental hazards	None	None	None
14.6 Special precautions for user	None	None	None

Contact Axol Technical Support at operations@axolbio.com

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable	Not applicable	Not applicable
---	----------------	----------------	----------------

15. Regulatory Information

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

- Substances of very high concern: None.
- Restricted substances under EC 1907/2006, Annex XVII: None.
- Substances listed under Annex I of Regulation (EC) No. 689/2008: None.
- Restricted Substances listed under Annex V of Regulation (EC) No. 689/2008: None.
- Substances under regulation (EC) No. 850/2004 of the European Parliament and the council of 29th April 2004 on persistent organic pollutants and amending directive 79/117/EEC: None.
- German Water hazard classes: Not classified.
- Other International Inventories: No information available.

15.2. Chemical safety assessment

No Chemical safety assessment has been carried out for this product.

16. Other Information

Revision information: This is a new SDS.

List of Abbreviations used in this SDS:

CAS Chemical Abstracts Service
 CLP Classification, Labelling and Packaging Regulation (EC) no 1272/2008
 EC European Community/Commission
 PBT Persistent, Bioaccumulative and Toxic
 REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) no 1907/2006
 vPvB very Persistent, very Bioaccumulative

References:

Supplier SDS
 Classification and Labelling Inventory European Chemicals Agency, <http://echa.europa.eu/>

Method used for classification of mixtures:

/Ingredient based approaches

H Statements used in Section 3

H300 Fatal if swallowed
 H301 Toxic if swallowed
 H310 Fatal in contact with skin
 H315 Causes skin irritation
 H317 May cause an allergic skin reaction
 H318 Causes serious eye damage
 H319 Causes serious eye irritation

Contact Axol Technical Support at operations@axolbio.com



MSDS Product Information Sheet

ax0333-c Differentiation Supplement A

H330 Fatal if inhaled

H331 Toxic if inhaled

H361 Suspected of damaging fertility or the unborn child

H373 May cause damage to organs through prolonged or repeated exposure

H400 Very toxic to aquatic life

H411 Toxic to aquatic life with long-lasting effects

Training requirements for workers

No special training requirements.

The information above is believed to be correct but 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 Axol Bioscience Ltd. 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.

Usage Statement: This product is intended for research use only and is not to be used for any other purpose, which includes but is not limited to, unauthorized commercial uses, *in vitro* diagnostic uses, *ex vivo* or *in vivo* therapeutic uses or any type of consumption or application to humans.

END OF SAFETY DATA SHEET

Contact Axol Technical Support at operations@axolbio.com

PHONE: +44 (0) 131 651 9710

US CALL TOLL FREE: 1-800-678-AXOL (2965)

 www.axolbio.com

Axol Bioscience Limited, Easter Bush Campus, Easter Bush, EH25 9RG