

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

1.1 Product Identifiers

Product Name: MEM (Hanks' salts), non-essential amino acids, GlutaminePlus

Catalog Number: M35750

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

Identified Uses: For *in vitro* research use only.

1.3 Details of the supplier of the safety data sheet

Company:	R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE Minneapolis, MN 55413, USA	Telephone:	1-800-343-7475
		Fax:	1-612-656-4400
		Internet:	www.rndsystems.com
		Email address:	info@bio-techne.com
Canada:	21 Canmotor Avenue Toronto, Ontario M8Z4E6 Canada	Telephone:	1-855-668-8722
		Fax:	902-827-6402
		Email address:	Canada.inquiries@bio-techne.com
United Kingdom:	19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB	Telephone:	44 (0)1235 529449
		Fax:	44 (0)1235 533420
		Email address:	info.emea@bio-techne.com
China:	1193 Changning Road Unit 1901, Raffles City Changning Office Shanghai	Telephone:	86-400-821-3475
		Fax:	76 (021) 52371001
		Email address:	techsupport.cn@bio-techne.com

1.4 Emergency Telephone Number

Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call Bio-Techne day or night:
Bio-Techne Tel: US:612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475

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], GHS or 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.

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

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

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.	ACCIDENTIAL 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 PPE 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.		
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 uses		
	Not applicable.		
8.	EXPOSURE CONTROLS/PERSONAL PROTECTION		
8.1	Control parameters		
	Components with workplace control parameters		
	Contains no substances with occupational exposure limit values.		
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 Protective 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.		
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 No data available.
	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 oxidizing/reducing agents.		
10.6	Hazardous decomposition products	Strong acids/alkalis, strong oxidizing/reducing agents.		
11.	TOXICOLOGICAL INFORMATION			
11.1	Information on toxicological effects			
	Acute Toxicity	Classified based on available data.		
	Skin Corrosion / Irritation	Classified based on available data.		
	Serious Eye Damage / Irritation	Classified based on available data.		
	Respiratory or Skin Sensitization	Classified based on available data.		
	Germ Cell Mutagenicity	Classified based on available data.		
	Carcinogenicity	Classified based on available data.		
	Reproductive Toxicity	Classified based on available data.		
	Specific Target Organ Toxicity - Single Exposure	Classified based on available data.		
	Specific Target Organ Toxicity - Repeated Exposure	Classified based on available data.		
	Aspiration Hazard	Classified based on available data.		
	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.		
	Additional Information	Classified based on available data.		
12.	ECOLOGICAL INFORMATION			
12.1	Toxicity	No data available.		
12.2	Persistence and degradability	No data available.		
12.3	Bio accumulative 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 Other adverse effects**
No data available.

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

Does not meet the criteria for classification as hazardous for transport.

14.2 UN proper shipping name

Does not meet the criteria for classification as hazardous for transport.

14.3 Transport hazard class(es)

Does not meet the criteria for classification as hazardous for transport.

14.4 Packaging group

Does not meet the criteria for classification as hazardous for transport.

14.5 Environmental hazards

Does not meet the criteria for classification as hazardous for transport.

14.6 Special precautions for users

Does not meet the criteria for classification as hazardous for transport.

Additional Transport Information

Does not meet the criteria for classification as hazardous for transport.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

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

TSCA (Toxic Substances Control Act): Not applicable.

SARA 313: Not applicable.

SARA 311/312: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists.

End of safety data sheet