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1 Identification

- · Product identifier
- · Trade name: RPMI 1640 without L-Glutamine
- · Article number: 1260254
- · Application of the substance / the mixture For Research Use Only
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier: MP Biomedicals, LLC 29525 Fountain Parkway Solon, OH 44139

United States www.mpbio.com

- · Information department: Quality Control Department
- · Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2 Hazard(s) identification

- · Classification of the substance or mixture
- The product is not classified, according to the Globally Harmonized System (GHS).
- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 0Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 0Fire = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description:

Mixture of substances listed below with nonhazardous additions.

Mixture: consisting of the following components.

· Dangerous components: Void

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4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Flush eyes with running water as a precaution.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

- Environmental precautions: Do not allow to enter sewers/surface or ground water.
- · Methods and material for containment and cleaning up: Pick up mechanically.
- · Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· Protective Action Criteria for Chemicals

<i>PAC-1</i> :		
144-55-8	Sodium Bicarbonate	13 mg/m ²
13477-34-4	Calcium Nitrate Tetrahydrate	12 mg/m ²
7487-88-9	magnesium sulphate	20 mg/m
34487-61-1	Phenol Red Sodium Salt	12 mg/m
98-92-0	nicotinamide	5.6 mg/n
150-13-0	p-Aminobenzoic Acid	15 mg/m
<i>PAC-2:</i>		
144-55-8	Sodium Bicarbonate	140 mg/m
13477-34-4	Calcium Nitrate Tetrahydrate	130 mg/n
7487-88-9	magnesium sulphate	220 mg/m
34487-61-1	Phenol Red Sodium Salt	130 mg/n
98-92-0	nicotinamide	62 mg/m³
150-13-0	p-Aminobenzoic Acid	69 mg/m ³

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Sodium Bicarbonate	840 mg/m³
Calcium Nitrate Tetrahydrate	770 mg/m³
magnesium sulphate	$1,300 \text{ mg/m}^3$
Phenol Red Sodium Salt	790 mg/m³
nicotinamide	690 mg/m³
p-Aminobenzoic Acid	410 mg/m³
	Sodium Bicarbonate Calcium Nitrate Tetrahydrate magnesium sulphate Phenol Red Sodium Salt nicotinamide p-Aminobenzoic Acid

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special requirements.
- · Conditions for safe storage, including any incompatibilities
- · Storage: 2-8°C
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Further information about storage conditions:
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see Section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Not required.

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Physical and chemical prope	rties	
Information on business about all and	al amical againstica	_
Information on basic physical and General Information	cnemicai properties	
Appearance:		
Form:	Solution	
Color:	According to product specification	
Odor:	Indeterminate	
Odor threshold:	Not determined.	
pH-value:	Not applicable.	
Change in condition		
Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not determined.	
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	See section 10	
Explosion limits:		
Lower:	Not Applicable	
Upper:	Not Applicable	
Vapor pressure:	Not applicable.	
Density:	Not Applicable	
Relative density	Not determined.	
Vapor density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with	Not Determined	
Water:	Easily soluble.	
Partition coefficient (n-octanol/wa	ter): Not determined.	
Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
Solvent content:		
Water:	98.8 %	
VOC content:	0.00 %	
	0.0 g/l / 0.00 lb/gl	
Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.

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· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity: Based on available data, the classification criteria are not met.
- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Irritant and potentially harmful
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

150-13-0 p-Aminobenzoic Acid

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· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Generally not hazardous for water
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Can not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Discard must be made according to official regulations.

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· Recommended cleansing agent: Water, if necessary with cleaning agents.

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· UN-Number · DOT, ADR, ADN, IMDG, IATA	Not regulated	
· UN proper shipping name · DOT, ADR, ADN, IMDG, IATA	Not regulated	
· Transport hazard class(es)		
· DOT, ADR, ADN, IMDG, IATA · Class	Not regulated	
· Packing group · DOT, ADR, IMDG, IATA	Not regulated	
Environmental hazards: Marine pollutant:	No	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	: II of Not applicable.	
· UN ''Model Regulation'':	Not regulated	

15 Regulatory information

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

Section 355	(extremely hazardous substances):
None of the	ingredients is listed.
Section 313	(Specific toxic chemical listings):
13477-34-4	Calcium Nitrate Tetrahydrate
TSCA (Toxi	c Substances Control Act):
7647-14-5	Sodium Chloride
144-55-8	Sodium Bicarbonate
50-99-7	D-(+)-Dextrose, Anhydrous
7558-79-4	Sodium Phosphate Dibasic Anhydrous
7447-40-7	Potassium Chloride
1119-34-2	L-Arginine Hydrochloride
61-90-5	L-Leucine
73-32-5	L-Isoleucine
7487-88-9	magnesium sulphate
657-27-2	L-Lysine Monohydrochloride
87-89-8	D-myo-Inositol
56-45-1	L-serine
72-18-4	L-Valine

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72-19-5	L-Threonine
51-35-4	4-Hydroxy-L-Proline
56-84-8	L-Aspartic Acid
147-85-3	L-Proline
56-86-0	L-Glutamic Acid, free acid
63-91-2	L-Phenylalanine
63-68-3	L-Methionine
56-40-6	Glycine
34487-61-1	Phenol Red Sodium Salt
73-22-3	L-Tryptophan
67-48-1	choline chloride
58-85-5	D-Biotin
98-92-0	nicotinamide
58-56-0	Pyridoxine Hydrochloride
68-19-9	Vitamin B12
137-08-6	D-Pantothenic Acid Calcium Salt
59-30-3	Folic Acid
Proposition	(5

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Quality Control Dept.

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· Date of preparation / last revision 01/23/2019 / -

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

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