

## 1 Identification

- **Product identifier**
- **Trade name:** SC Amino Acid Mixture
- **Article number:** 4400022
- **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)**



- **HMIS-ratings (scale 0 - 4)**



- **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.

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**· Dangerous components:**

CAS: 7048-04-6 EINECS: 200-157-7 RTECS: HA2285000	L-Cysteine Hydrochloride Monohydrate	2.5-10%
CAS: 73-24-5 EINECS: 200-796-1 RTECS: AU6125000	Adenine	1-2.5%

**· Additional information:**

150-13-0	P-Aminobenzoic Acid	0-1%
73-22-3	L-Tryptophan	2.5-<10%
60-18-4	L-Tyrosine	2.5-<10%
66-22-8	Uracil	2.5-<10%
72-18-4	L-Valine	2.5-<10%

## 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.

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### · Protective Action Criteria for Chemicals

· PAC-1:		
150-13-0	p-Aminobenzoic Acid	15 mg/m <sup>3</sup>
· PAC-2:		
150-13-0	p-Aminobenzoic Acid	69 mg/m <sup>3</sup>
· PAC-3:		
150-13-0	p-Aminobenzoic Acid	410 mg/m <sup>3</sup>

## 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:** 15-30°C
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **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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## 9 Physical and chemical properties

· <b>Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Powder
· <b>Color:</b>	According to product specification
· <b>Odor:</b> Indeterminate	
· <b>Odor threshold:</b> Not determined.	
· <b>pH-value:</b> Not applicable.	
· <b>Change in condition</b>	
· <b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b> Not applicable.	
· <b>Flammability (solid, gaseous):</b> Not determined.	
· <b>Decomposition temperature:</b> Not determined.	
· <b>Auto igniting:</b> Product is not selfigniting.	
· <b>Danger of explosion:</b> See section 10	
· <b>Explosion limits:</b>	
· <b>Lower:</b>	Not Applicable
· <b>Upper:</b>	Not Applicable
· <b>Vapor pressure:</b> Not applicable.	
· <b>Density:</b> Not Applicable	
· <b>Relative density</b> Not determined.	
· <b>Vapor density</b> Not applicable.	
· <b>Evaporation rate</b> Not applicable.	
· <b>Solubility in / Miscibility with</b> Not Determined	
· <b>Water:</b> Easily soluble.	
· <b>Partition coefficient (n-octanol/water):</b> Not determined.	
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not applicable.
· <b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
· <b>VOC content:</b>	0.00 % 0.0 g/l / 0.00 lb/gl
· <b>Solids content:</b> 100.0 %	
· <b>Other information</b> 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.

· **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimate)

Oral	LD50	21,619 mg/kg (rat)
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- **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	3
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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:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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.

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- **Uncleaned packagings:**
- **Recommendation:** Discard must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleaning agents.

## 14 Transport information

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

## 15 Regulatory information

· <b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
· <b>Sara</b>	
· <b>Section 355 (extremely hazardous substances):</b>	
None of the ingredients is listed.	
· <b>Section 313 (Specific toxic chemical listings):</b>	
None of the ingredients is listed.	
· <b>TSCA (Toxic Substances Control Act):</b>	
61-90-5	L-Leucine
56-41-7	L-Alanine
1119-34-2	L-Arginine Hydrochloride
70-47-3	L-ASPARAGINE, ANHYDROUS
56-84-8	L-Aspartic Acid
56-85-9	L-Glutamine
56-86-0	L-Glutamic Acid, free acid
56-40-6	Glycine
71-00-1	L-Histidine
87-89-8	D-myo-Inositol, cell culture reagent
73-32-5	L-Isoleucine

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657-27-2	L-Lysine Monohydrochloride
63-68-3	L-Methionine
63-91-2	L-Phenylalanine
147-85-3	L-Proline
56-45-1	L-serine
72-19-5	L-Threonine, cell culture reagent
73-22-3	L-Tryptophan
60-18-4	L-Tyrosine
66-22-8	Uracil
72-18-4	L-Valine
73-24-5	Adenine
150-13-0	p-Aminobenzoic Acid

- **TSCA new (21st Century Act) (Substances not listed)**

7048-04-6	L-Cysteine Hydrochloride Monohydrate
73-24-5	Adenine

- **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.

- **Date of preparation / last revision** 02/26/2018 / -

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**· 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)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*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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