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Version number 3

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1.1 Product identifier		
Trade name: L-Methionine		JEKVA
Article number: 28821		serving scientists
CAS Number:		
63-68-3		\sim
<i>EC number:</i> 200-562-9		
1.2 Relevant identified uses of	f the substance or mixture and uses advise	ed against
No further relevant informatio		
	the mixture Laboratory chemicals	(Δ)
1.3 Details of the supplier of a Manufacturer/Supplier:	the safety data sheet	
SERVA Electrophoresis GmbH	4	S
Carl-Benz-Str. 7	C	
D-69115 Heidelberg Tel.: +49 6221 13840-0	0.5	7
FAX: +49 6221 13840-10		
msds.info@serva.de	\circ	
	duct Safety department Tel.: +49 6221 138	840-35
1.4 Emergency telephone num Medical Emergency Informati		
	uinz - Phone: +49 (0) 6131 19240	
(advisory service in German o		
	0	
SECTION 2: Hazards iden	tification	
2.1 Classification of the subst	ance or mixture	
Classification according to R		
	according to the CLP regulation.	
2.2 Label elements	ation (EC) No 1272/2008 Void	
Hazard pictograms Void	alion (EC) NO 1272/2008 Vola	
Signal word Void		
Hazard statements Void		
2.3 Other hazards Results of PBT and vPvB asso	essment	
PBT: Not applicable.		
vPvB: Not applicable.		
SECTION 3: Composition/	information on ingredients	
3.1 Chemical characterisation	n: Substances	
CAS No. Description: 63-68-3 L-methionine		
Identification number(s):		
EC number: 200-562-9		
Description: Empirical formula: $C_5 H_{11} N$	0-S	
MW: 149.21	020	
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SECTION 4: First aid measures

- · 4.1 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 Immediately rinse with water.
- · After eye contact Rinse opened eye for several minutes under running water.
- · After swallowing
- Rinse out mouth and then drink plenty of water.
- If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- \cdot 4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

- Suitable extinguishing agents
- CO_2 , extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- \cdot 5.2 Special hazards arising from the substance or mixture
- In case of fire, the following can be formed, but not limited to: Nitrogen oxides (NOx) Sulphur dioxide (SO₂) Carbon monoxide and carbon dioxide
- · 5.3 Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- \cdot 6.3 Methods and material for containment and cleaning up: Pick up mechanically.
- 6.4 Reference to other sections No dangerous substances are released.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling Prevent formation of dust.
- Information about protection against explosions and fires: No special measures required.

· 7.2 Conditions for safe storage, including any incompatibilities

- · Storage
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:
- *Keep receptacle tightly sealed. Store in dry conditions.*
- Protect from exposure to the light.

• 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

• Additional information about design of technical systems: No further data; see item 7.

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- · 8.1 Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment
- \cdot General protective and hygienic measures

The usual precautionary measures should be adhered to when handling chemicals.

- Breathing equipment: Suitable respiratory protective device recommended.
- · 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.

• Penetration time of glove material

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

- \cdot For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:
- Natural rubber, NR

Nitrile rubber, NBR • Eye protection: Safety glasses

• **Body protection:** Protective work clothing.

0.1 Information on basis abusisal and al	annial manantia	
9.1 Information on basic physical and ch General Information	iemicai properties	
Appearance:		
Form:	Crystalline powder	
Colour:	White	
Odour:	Characteristic	
<i>pH-value</i> (25 <i>g/l</i>) <i>at</i> 20 • <i>C</i> :	5.5 - 6.5	
Change in condition		
Melting point/freezing point:	280 - 285 °C	
Initial boiling point and boiling range:	undetermined	
Flash point:	Not applicable	
Flammability (solid, gaseous)	Product is not flammable.	
Explosive properties:	Product does not present an explosion hazard.	
Density at 20 •C:	$0.43 \ g/cm^3$	
Bulk density at 20 °C:	ca. 550 kg/m ³	
Solubility in / Miscibility with		
Water at 20 °C:	ca. 50 g/l	
9.2 Other information	No further relevant information available.	

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SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

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

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:

Oral LD50 36 000 mg/kg (rat)

- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- $\cdot \textit{Reproductive toxicity Based on available data, the classification criteria are not met.}$
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** PBT assessment not available.
- · vPvB: vPvB assessment not available.
- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- **Recommendation** Smaller quantities can be disposed of with household waste.
- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

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

SECTION 14: Transport information	
· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es)	
· ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Anne Marpol and the IBC Code	x II of Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· ADR · Transport category	-
· UN ''Model Regulation'':	Void

SECTION 15: Regulatory information

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

· National regulations

• Water hazard class: Water hazard class 1 (Assessment by list): slightly hazardous for water.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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: Product safety department

· Contact: +49 6221 13840-35

· Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organisation PBT: persistent, bioaccumulative, toxic substance (REACH) vPvB: very persistent, very bioaccumulative substance (REACH) REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals CLP: Regulation on classification, labelling and packaging of substances and mixtures 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 IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

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PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

 \cdot * Data compared to the previous version altered.

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