

**Microvettes 500 / Multivettes 600 LH-Gel**

Revision date: 20.07.2021

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Microvettes 500 / Multivettes 600 LH-Gel

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

**Use of the substance/mixture**

For plasma separation.

**Uses advised against**

Observe the instructions for use and handling.

**1.3. Details of the supplier of the safety data sheet**

**Manufacturer**

Company name: SARSTEDT AG & Co. KG  
Street: Sarstedtstraße 1  
Place: D-51588 Nümbrecht  
Post-office box: 1220  
D-51582 Nümbrecht  
Telephone: +49 (0)2293 / 305 - 0  
Telefax: +49 (0)2293 / 305 - 2470  
e-mail: info@sarstedt.com  
Contact person: Dr. Daniel Will  
Telephone: +49 (0)2293 / 305 - 4500  
Jochen Hoffmann  
e-mail: sicherheitsdatenblatt@sarstedt.com  
Internet: www.sarstedt.com  
Responsible Department: R & D Center

**Supplier**

Company name: SARSTEDT Ltd.  
Street: Optimus Way, Optimus Point  
Place: GB-LE3 8JR Leicester  
Telephone: +44 (0) 116 235 9023  
Telefax: +44 (0) 116 236 6099  
e-mail: info.gb@sarstedt.com  
Internet: www.sarstedt.com

**1.4. Emergency telephone number:**

Call NHS 111 or a doctor (public). NPIS: 0344 892 0111 (healthcare professionals).

**Further Information**

All information in this safety data sheet refers to the unused product and its preparation.

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Regulation (EC) No. 1272/2008**

Hazard categories:

Acute toxicity: Acute Tox. 4

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Resp. Sens. 1

Respiratory or skin sensitisation: Skin Sens. 1

Hazard Statements:

Harmful if inhaled.

Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

**2.2. Label elements**

**Regulation (EC) No. 1272/2008**

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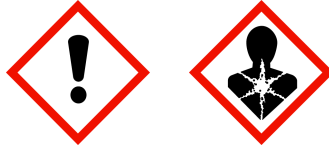
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**Hazard components for labelling**

Tris (2-ethylhexyl) trimellitate  
Lithium heparin

**Signal word:** Danger

**Pictograms:**



**Hazard statements**

H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash hands thoroughly after handling.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P302+P352 IF ON SKIN: Wash with plenty of Water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.

**Additional advice on labelling**

none

**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Chemical characterization**

The article contains separating gel and lithium heparin (up to 40 I.U.). Depending on the article, a mixing aid may be included.

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**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
3319-31-1	Tris (2-ethylhexyl) trimellitate			40 - < 45 %
	222-020-0			
	Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2; H332 H312 H319			
9045-22-1	Lithium heparin			1 - < 5 %
	232-681-7			
	Acute Tox. 4, Resp. Sens. 1, Skin Sens. 1; H302 H334 H317			
872-50-4	N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone			< 1 %
	212-828-1	606-021-00-7		
	Repr. 1B, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H360D H315 H319 H335			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
3319-31-1	222-020-0	Tris (2-ethylhexyl) trimellitate	40 - < 45 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = > 2,6 mg/l (dusts or mists); dermal: LD50 = > 1977 mg/kg; oral: LD50 = > 2000 mg/kg	
9045-22-1	232-681-7	Lithium heparin	1 - < 5 %
		oral: LD50 = 1950 mg/kg	
872-50-4	212-828-1	N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone	< 1 %
		dermal: LD50 = 8000 mg/kg; oral: LD50 = 3600 mg/kg STOT SE 3; H335: >= 10 - 100	

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**After inhalation**

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

**After ingestion**

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. The mixing aid itself can cause a blockage in the stomach and intestines. Do not give laxatives. Do not induce vomiting unless medically instructed to do so.

**4.2. Most important symptoms and effects, both acute and delayed**

No information available.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

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**Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**5.2. Special hazards arising from the substance or mixture**

In case of fire, the smoke may contain, in addition to the base material, combustion products with not definable toxic and / or irritant compositions. Combustion products may i.a. contain: carbon dioxide. Carbon monoxide.

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**General measures**

Do not breathe gas/fumes/vapour/spray. Use personal protection equipment. Observe the instructions for use and handling. Wear suitable protective gloves when taking blood samples and handling potentially infectious material.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

**Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents) or take up mechanically.

**6.4. Reference to other sections**

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Observe the instructions for use and handling.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep container tightly closed.

**Hints on joint storage**

No special measures are necessary.

**7.3. Specific end use(s)**

For plasma separation.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

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**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
872-50-4	1-Methyl-2-pyrrolidone	10	40		TWA (8 h)	WEL
		20	80		STEL (15 min)	WEL

**8.2. Exposure controls**



**Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

**Eye/face protection**

Wear eye protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Wear suitable protective gloves when taking blood samples and handling potentially infectious material.

**Skin protection**

Use of protective clothing.

**Respiratory protection**

Not required if used as intended.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state: Separating gel: pasty / liquid  
 Colour: white / colourless  
 Odour: characteristic  
 pH-Value: No data available

**Changes in the physical state**

Melting point: No data available  
 Boiling point or initial boiling point and boiling range: No data available  
 Flash point: No data available

**Flammability**

Solid/liquid: No data available  
 Gas: No data available

**Explosive properties**

No data available.

Lower explosion limits: No data available  
 Upper explosion limits: No data available

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Auto-ignition temperature:	No data available
<b>Self-ignition temperature</b>	
Solid:	No data available
Gas:	No data available
Decomposition temperature:	No data available
<b>Oxidizing properties</b>	
No data available	
Vapour pressure:	No data available
Density:	No data available
Water solubility:	Preparation partially soluble
<b>Solubility in other solvents</b>	
not determined	
Partition coefficient n-octanol/water:	No data available
Relative vapour density:	No data available
Evaporation rate:	No data available
<b><u>9.2. Other information</u></b>	
Solid content:	No data available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No data available.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No data available.

**10.4. Conditions to avoid**

Heating.

**10.5. Incompatible materials**

Oxidizing agents. Fluorine. Acids. Alkalis (alkalis).

**10.6. Hazardous decomposition products**

No data available.

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute toxicity**

Harmful if inhaled.

**ATEmix calculated**

ATE (inhalation aerosol) 3,415 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
3319-31-1	Tris (2-ethylhexyl) trimellitate				
	oral	LD50 > 2000 mg/kg	Rat		
	dermal	LD50 > 1977 mg/kg	Rabbit		
	inhalation vapour	ATE 11 mg/l			
	inhalation (4 h) aerosol	LC50 > 2,6 mg/l	Rat		
9045-22-1	Lithium heparin				
	oral	LD50 1950 mg/kg	Rat	ChemIDplus - Database	
872-50-4	N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone				
	oral	LD50 3600 mg/kg	Rat	IUCLID	
	dermal	LD50 8000 mg/kg	Rabbit	IUCLID	

**Irritation and corrosivity**

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Lithium heparin)

May cause an allergic skin reaction. (Lithium heparin)

**Carcinogenic/mutagenic/toxic effects for reproduction**

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.

**Additional information on tests**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

**11.2. Information on other hazards**

**Endocrine disrupting properties**

No data available

**SECTION 12: Ecological information**

**12.1. Toxicity**

The mixing aid itself can cause mechanical side effects in water birds or aquatic life if swallowed.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
3319-31-1	Tris (2-ethylhexyl) trimellitate					
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Oryzias latipes		
	Acute algae toxicity	ErC50 > 100 mg/l	72 h	Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50 > 180 mg/l	48 h	Daphnia magna (Big water flea)		
872-50-4	N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone					
	Acute fish toxicity	LC50 832 mg/l	96 h	Lepomis macrochirus (Bluegill)	IUCLID	
	Acute algae toxicity	ErC50 > 500 mg/l	72 h	Scenedesmus quadricauda	IUCLID	
	Acute crustacea toxicity	EC50 ca. 4897 mg/l	48 h	Daphnia magna (Big water flea)	IUCLID	

**12.2. Persistence and degradability**

The product is expected to be environmentally inert. In sunlight, a photochemical degradation of the surface is expected. Significant biodegradation is not expected.

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
3319-31-1	Tris (2-ethylhexyl) trimellitate	8,8
872-50-4	N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone	-0,54

**BCF**

CAS No	Chemical name	BCF	Species	Source
3319-31-1	Tris (2-ethylhexyl) trimellitate	< 2,7		

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The product has not been tested.

**12.6. Endocrine disrupting properties**

The product has not been tested.

**12.7. Other adverse effects**

No information available.

**Further information**

Avoid release to the environment.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number:**

No dangerous good in sense of this transport regulation.



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<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.
<b>Inland waterways transport (ADN)</b>	
<b>14.1. UN number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.
<b>Marine transport (IMDG)</b>	
<b>14.1. UN number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.
<b>Air transport (ICAO-TI/IATA-DGR)</b>	
<b>14.1. UN number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.
<b>14.5. Environmental hazards</b>	
ENVIRONMENTALLY HAZARDOUS:	No
<b>14.6. Special precautions for user</b>	No information available.
<b>14.7. Maritime transport in bulk according to IMO instruments</b>	not applicable

**SECTION 15: Regulatory information**

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

**EU regulatory information**

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):  
N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 30

2010/75/EU (VOC): 0,293 %

2004/42/EC (VOC): 0,293 %

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

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**SECTION 16: Other information**

**Changes**

First issue.

**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  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
RID: Regulations concerning the international carriage of dangerous goods by rail  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
ICAO: International Civil Aviation Organization  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
SVHC: Substance of Very High Concern  
VOC: Volatile Organic Compounds  
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

Classification	Classification procedure
Acute Tox. 4; H332	Calculation method
Eye Irrit. 2; H319	Calculation method
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method

**Relevant H and EUH statements (number and full text)**

H302 Harmful if swallowed.  
H312 Harmful in contact with skin.

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H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*