

**S-Monovettes GlucoEXACT**

Revision date: 04.04.2024

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

**1.1. Product identifier**

S-Monovettes GlucoEXACT

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

**Use of the substance/mixture**

For glucose determination.

**Uses advised against**

See instructions for use - SARSTEDT S-Monovette® Blood collection system at [www.sarstedt.com](http://www.sarstedt.com).

**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:	<a href="mailto:info@sarstedt.com">info@sarstedt.com</a>	
Contact person:	Dr. Daniel Will	Telephone: +49 (0)2293 / 305 - 4500
	Jochen Hoffmann	
E-mail:	<a href="mailto:sicherheitsdatenblatt@sarstedt.com">sicherheitsdatenblatt@sarstedt.com</a>	
Internet:	<a href="http://www.sarstedt.com">www.sarstedt.com</a>	
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:	<a href="mailto:info.gb@sarstedt.com">info.gb@sarstedt.com</a>	
Internet:	<a href="http://www.sarstedt.com">www.sarstedt.com</a>	

**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**

**GB CLP Regulation**

Acute Tox. 2; H310  
Acute Tox. 2; H330  
Acute Tox. 3; H301

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**

**GB CLP Regulation**

**Hazard components for labelling**

potassium fluoride  
Ethylenediaminetetraacetic acid tripotassium salt dihydrate

**Signal word:** Danger

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**Pictograms:**



**Hazard statements**

- H301 Toxic if swallowed.  
H310+H330 Fatal in contact with skin or if inhaled.

**Precautionary statements**

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P262 Do not get in eyes, on skin, or on clothing.  
P264 Wash ... thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P284 Wear respiratory protection.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P321 Specific treatment (see ... on this label).  
P330 Rinse mouth.  
P302+P352 IF ON SKIN: Wash with plenty of ....  
P310 Immediately call a POISON CENTER/doctor.  
P321 Specific treatment (see ... on this label).  
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P310 Immediately call a POISON CENTER/doctor.  
P320 Specific treatment is urgent (see ... on this label).  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/container to ....

**Additional advice on labelling**

none

**2.3. Other hazards**

No information available.

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

**3.2. Mixtures**

**Chemical characterization**

S-monovettes GlucoEXACT contain < 445 µl stabiliser solution.

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**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
7789-23-3	potassium fluoride			100 %
	232-151-5	009-005-00-2		
	Acute Tox. 3, Acute Tox. 3, Acute Tox. 3; H331 H311 H301			
5949-29-1	Citric acid monohydrate			1 - < 5 %
	201-069-1		01-2119457026-42	
	Eye Irrit. 2, STOT SE 3; H319 H335			
65501-24-8	Ethylenediaminetetraacetic acid tripotassium salt dihydrate			1 - < 5 %
	676-659-9			
	Acute Tox. 4, STOT RE 2; H332 H373			

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	
7789-23-3	232-151-5	potassium fluoride	100 %
		inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: LD50 = 245 mg/kg	
5949-29-1	201-069-1	Citric acid monohydrate	1 - < 5 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = 5400 mg/kg	
65501-24-8	676-659-9	Ethylenediaminetetraacetic acid tripotassium salt dihydrate	1 - < 5 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: LD50 = 2800 mg/kg	

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**After inhalation**

Provide fresh air.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

**After ingestion**

Rinse mouth immediately and drink 1 glass of water.

**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**

**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

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toxic and / or irritant compositions. Combustion products may i.a. contain: carbon dioxide. Carbon monoxide.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

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 advice**

See instructions for use - SARSTEDT S-Monovette® Blood collection system at [www.sarstedt.com](http://www.sarstedt.com).

**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.

**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**

See instructions for use - SARSTEDT S-Monovette® Blood collection system at [www.sarstedt.com](http://www.sarstedt.com). Avoid contact with eyes and skin. Take off contaminated clothing.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

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

**Requirements for storage rooms and vessels**

Keep container tightly closed.

**Hints on joint storage**

Keep in a cool place away from acids.

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

For glucose determination.

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

**8.1. Control parameters**

**8.2. Exposure controls**



**Individual protection measures, such as personal protective equipment**

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**Eye/face protection**

Wear eye protection/face 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.

**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:	liquid	
Colour:	colourless	
Odour:	odourless	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		5,06
Viscosity / kinematic:		No data available
Water solubility:		completely miscible
Solubility in other solvents		
There are no data available on the mixture itself.		
Partition coefficient n-octanol/water:		No data available
Vapour pressure:		No data available
Density:		1,059 g/cm <sup>3</sup>
Relative vapour density:		No data available
Particle characteristics:		No data available

**9.2. Other information**

**Information with regard to physical hazard classes**

**Explosive properties**

There are no data available on the mixture itself.

**Self-ignition temperature**

Solid:

No data available

Gas:

No data available

**Oxidizing properties**

There are no data available on the mixture itself.

**Other safety characteristics**

Evaporation rate:

No data available

Solid content:

No data available

**SECTION 10: Stability and reactivity**

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**10.1. Reactivity**

There are no data available on the mixture itself.

**10.2. Chemical stability**

There are no data available on the mixture itself.

**10.3. Possibility of hazardous reactions**

Contact with acid releases hydrofluoric acid.

**10.4. Conditions to avoid**

There are no data available on the mixture itself.

**10.5. Incompatible materials**

There are no data available on the mixture itself.

**10.6. Hazardous decomposition products**

There are no data available on the mixture itself.

**Further information**

Do not mix with acids.

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in GB CLP Regulation**

**Acute toxicity**

Fatal in contact with skin.

Fatal if inhaled.

Toxic if swallowed.

**ATEmix calculated**

ATE (oral) 92,50 mg/kg; ATE (dermal) 113,2 mg/kg; ATE (inhalation vapour) 1,130 mg/l; ATE (inhalation dust/mist) 0,1880 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7789-23-3	potassium fluoride				
	oral	LD50 245 mg/kg	Rat	(IUCLID)	
	dermal	ATE 300 mg/kg			
	inhalation vapour	ATE 3 mg/l			
	inhalation dust/mist	ATE 0,5 mg/l			
5949-29-1	Citric acid monohydrate				
	oral	LD50 5400 mg/kg	Mouse	(external safety data sheet)	OECD 401
	dermal	LD50 >2000 mg/kg	Rat		OECD 402
65501-24-8	Ethylenediaminetetraacetic acid tripotassium salt dihydrate				
	oral	LD50 2800 mg/kg	Rat	(external safety data sheet)	(OECD 401)
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

**Irritation and corrosivity**

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

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

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**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects 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.

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.

**Additional information on tests**

The mixture is classified as not 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**

There are no data available on the mixture itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
5949-29-1	Citric acid monohydrate					
	Acute fish toxicity	LC50 440 - 760 mg/l	96 h	Leuciscus idus (golden orfe)	(IUCLID)	
65501-24-8	Ethylenediaminetetraacetic acid tripotassium salt dihydrate					
	Acute fish toxicity	LC50 792 mg/l	96 h	Lepomis macrochirus	(external safety data sheet)	
	Acute algae toxicity	ErC50 >100 mg/l	72 h	Daphnia magna (Big water flea)	(external safety data sheet)	OECD 201

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
7789-23-3	potassium fluoride	-0,77
5949-29-1	Citric acid monohydrate	-1,72

**12.4. Mobility in soil**

There are no data available on the mixture itself.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

There are no data available on the mixture itself.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

There are no data available on the mixture itself.

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**12.7. Other adverse effects**

There are no data available on the mixture itself.

**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

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

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

<b>14.1. UN number or ID 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.

**Inland waterways transport (ADN)**

<b>14.1. UN number or ID 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.

**Marine transport (IMDG)**

<b>14.1. UN number or ID 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.

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number or ID 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.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

See section 6 and 7.

**14.7. Maritime transport in bulk according to IMO instruments**

The mixture is not intended for bulk haulage.

**SECTION 15: Regulatory information**

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

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

**Additional information**

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC



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**National regulatory information**

Water hazard class (D): 2 - obviously hazardous to water

**Additional information**

Instructions of BG RCI (Germany):  
M005 hydrogen fluoride, hydrofluoric acid and inorganic fluoride  
M050 handling of hazardous materials

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

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

**15.2. Chemical safety assessment**

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

**SECTION 16: Other information**

**Changes**

This data sheet contains changes from the previous version in section(s): 2,7,9,11.  
First issue.

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**Abbreviations and acronyms**

Acute Tox: Acute toxicity  
 Eye Irrit: Eye irritation  
 STOT SE: Specific target organ toxicity - single exposure  
 STOT RE: Specific target organ toxicity - repeated exposure  
 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  
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

**Classification for mixtures and used evaluation method according to GB CLP Regulation**

Classification	Classification procedure
Acute Tox. 2; H310	Calculation method
Acute Tox. 2; H330	Calculation method
Acute Tox. 3; H301	Calculation method

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

H301 Toxic if swallowed.  
 H310 Fatal in contact with skin.  
 H310+H330 Fatal in contact with skin or if inhaled.  
 H311 Toxic in contact with skin.  
 H319 Causes serious eye irritation.  
 H330 Fatal if inhaled.

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H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

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