

S-Monovette® RNA Exact

Revision date: 20.04.2021

Art. no. 01.2048.001

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

1.1. Product identifier

S-Monovette® RNA Exact

UFI: Q9QQ-21VV-KR9Y-Y63X

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

Use of the substance/mixture

For blood collection. The S-Monovette® RNA Exact is used for venous blood collection using the aspiration technique and allows a freely selectable sample volume of up to 9.7 ml (of which up to 2.4 ml are blood). The product serves to immediately stabilize all of the RNA contained in the blood (prevents degradation and new synthesis of RNA). The S-Monovette® RNA Exact standardizes preanalytics in a closed system during storage and transport of the sample.

Uses advised against

Use S-Monovette® only for blood collection and not for injection. Blood and blood components collected and processed in the S-Monovette® RNA Exact are not suitable for infusion or introduction into the human body.

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

Skin corrosion/irritation: Skin Corr. 1B

Serious eye damage/eye irritation: Eye Dam. 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

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Harmful if inhaled.
Causes severe skin burns and eye damage.
Causes serious eye damage.
Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Guanidine thiocyanate
Alcohols, C11-15, secondary, ethoxylated

Signal word: Danger

Pictograms:



Hazard statements

H314 Causes severe skin burns and eye damage.
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 Immediately 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.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container to waste disposal site according to legal regulations.

Special labelling of certain mixtures

EUH032 Contact with acids liberates very toxic gas.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

The S-Monovette® RNA Exact contains 7.3 ml of an aqueous stabilizer solution.

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
593-84-0	Guanidine thiocyanate			20 - < 25 %
	209-812-1			
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Aquatic Chronic 3; H332 H312 H302 H314 H318 H412 EUH032			
68131-40-8	Alcohols, C11-15, secondary, ethoxylated			5 - < 10 %
	614-295-4			
	Acute Tox. 4, Acute Tox. 4, Aquatic Chronic 2; H332 H302 H411			
65501-24-8	Ethylenediaminetetraacetic acid tripotassium salt			1 - < 5 %
	241-543-5			
	Eye Irrit. 2, Aquatic Chronic 3; H319 H412			

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		
593-84-0	209-812-1	Guanidine thiocyanate	20 - < 25 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: ATE = 1100 mg/kg; oral: LD50 = 593 mg/kg		
68131-40-8	614-295-4	Alcohols, C11-15, secondary, ethoxylated	5 - < 10 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = 1,06 mg/l (dusts or mists); dermal: LD50 = >2000 mg/kg; oral: LD50 = >=2000 mg/kg		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

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 occurs: Get medical advice/attention.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink 1 glass of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

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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

Non-flammable. In case of fire may be liberated: nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂), sulphur oxides (SO_x), hydrogen cyanide (HCN, prussic acid).

5.3. Advice for firefighters

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

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

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

Do not breathe gas/fumes/vapour/spray. Do not open Monovette®. Observe the instructions for use and handling. Please follow the procedure described in the instructions for use and use only the prescribed materials for blood collection. Use S-Monovette® only for blood collection and not for injection. Use S-Monovette® RNA Exact only with Safety-Multifly®-Needle (REF 85.1637.235, 85.1638.235, 85.1640.235 or 85.1642.235), length: 200 mm. The S-Monovette® RNA Exact is used exclusively with the aspiration technique. The plunger does not lock into the base. The S-Monovette® RNA Exact should always be filled as the last S-Monovette® for multiple withdrawals. Wear suitable protective gloves when taking blood samples and handling potentially infectious material.

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

Store in a place accessible by authorized persons only. Store at room temperature. Store light protected.

Hints on joint storage

Do not store together with: Acid.

7.3. Specific end use(s)

For blood collection. The S-Monovette® RNA Exact is used for venous blood collection using the aspiration

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technique and allows a freely selectable sample volume of up to 9.7 ml (of which up to 2.4 ml are blood). The product serves to immediately stabilize all of the RNA contained in the blood (prevents degradation and new synthesis of RNA). The S-Monovette® RNA Exact standardizes preanalytics in a closed system during storage and transport of the sample.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PNEC values

CAS No	Substance	
	Environmental compartment	Value
68131-40-8	Alcohols, C11-15, secondary, ethoxylated	
	Freshwater sediment	28,1 mg/kg
	Marine sediment	2,81 mg/kg
	Soil	5,6 mg/kg

8.2. Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

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

Suitable eye protection: goggles.

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

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid	
Colour:	yellowish	
Odour:	slight inherent smell	
pH-Value (at 25 °C):		6,8

Changes in the physical state

Melting point:	not determined
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Boiling point or initial boiling point and boiling range: not determined

Flash point: not determined

Flammability

Solid/liquid: not applicable

Gas: not applicable

Explosive properties

The product is not: Explosive. No data available.

Lower explosion limits: not determined

Upper explosion limits: not determined

Self-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Vapour pressure: not determined

Density: 1,088 g/cm³

Water solubility: completely miscible

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

Relative vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with: Acid.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

10.4. Conditions to avoid

Heating. Store light protected.

10.5. Incompatible materials

Do not mix with: Acids.

10.6. Hazardous decomposition products

Contact with acids liberates toxic gas. In case of fire may be liberated: nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂), sulphur oxides (SO_x), hydrogen cyanide (HCN, prussic acid).

SECTION 11: Toxicological information

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

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ATEmix calculated

ATE (inhalation aerosol) 4,499 mg/l

Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
593-84-0	Guanidine thiocyanate				
	oral	LD50 mg/kg	593	Rat	ECHA
	dermal	ATE mg/kg	1100		
	inhalation vapour	ATE	11 mg/l		
	inhalation aerosol	ATE	1,5 mg/l		
68131-40-8	Alcohols, C11-15, secondary, ethoxylated				
	oral	LD50 mg/kg	>=2000	Rat	ECHA
	dermal	LD50 mg/kg	>2000	Rat	ECHA
	inhalation vapour	ATE	11 mg/l		
	inhalation (4 h) aerosol	LC50	1,06 mg/l	Rat	

Additional information on tests

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

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
593-84-0	Guanidine thiocyanate					
	Acute fish toxicity	LC50 mg/l	89,1	96 h Fish	ECHA	
	Acute algae toxicity	ErC50	130 mg/l	72 h alga	ECHA	
	Acute crustacea toxicity	EC50 mg/l	42,4	48 h aquatic invertebrates	ECHA	
68131-40-8	Alcohols, C11-15, secondary, ethoxylated					
	Acute fish toxicity	LC50	3,2 mg/l	96 h Pimephales promelas		
	Acute crustacea toxicity	EC50	7,3 mg/l	48 h Daphnia magna		

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
593-84-0	Guanidine thiocyanate	-1,11
68131-40-8	Alcohols, C11-15, secondary, ethoxylated	3,382

12.4. Mobility in soil

The product has not been tested.

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12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.7. Other adverse effects

No information available.

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)

<u>14.1. UN number:</u>	UN 1760
<u>14.2. UN proper shipping name:</u>	CORROSIVE LIQUID, N.O.S.
<u>14.3. Transport hazard class(es):</u>	8
<u>14.4. Packing group:</u>	III
Hazard label:	8



Classification code:	C9
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	80
Tunnel restriction code:	E

Inland waterways transport (ADN)

<u>14.1. UN number:</u>	UN 1760
<u>14.2. UN proper shipping name:</u>	CORROSIVE LIQUID, N.O.S.
<u>14.3. Transport hazard class(es):</u>	8
<u>14.4. Packing group:</u>	III
Hazard label:	8



Classification code:	C9
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1

Marine transport (IMDG)

<u>14.1. UN number:</u>	UN 1760
<u>14.2. UN proper shipping name:</u>	CORROSIVE LIQUID, N.O.S.
<u>14.3. Transport hazard class(es):</u>	8

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14.4. Packing group:

III

Hazard label:

8



Special Provisions:

223, 274

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:

UN 1760

14.2. UN proper shipping name:

CORROSIVE LIQUID, N.O.S.

14.3. Transport hazard class(es):

8

14.4. Packing group:

III

Hazard label:

8



Special Provisions:

A3 A803

Limited quantity Passenger:

1 L

Passenger LQ:

Y841

Excepted quantity:

E1

IATA-packing instructions - Passenger:

852

IATA-max. quantity - Passenger:

5 L

IATA-packing instructions - Cargo:

856

IATA-max. quantity - Cargo:

60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

No

14.6. Special precautions for user

Warning: strongly corrosive.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

Other applicable information

For safe transport, SARSTEDT offers a complete packaging system for the S-Monovette® that has been tested and meets the requirements of packaging regulation P 650 of the ADR, RID, ICAO and IATA.

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 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

National regulatory information

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Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D): 2 - obviously hazardous to water

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): 2,4,5,7,8,9,10,11,12,13,14,15,16.

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
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

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

Classification	Classification procedure
Acute Tox. 4; H332	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

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. 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.

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