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

1.1. Product identifier
Micro tube 500µl Gen2 Ro/20µl

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

Use of the substance/mixture
For glucose determination in haemolysate.

1.3. Details of the supplier of the safety data sheet
Company name: SARSTEDT AG & Co.
Street: Sarstedtstraße 1
Place: D-51588 Nümbrecht
Post-office box: 1220
D-51582 Nümbrecht

Telephone: +49 (0)2293 / 305 - 0
E-mail: info@sarstedt.com
Contact person: Dr. Dagmar Flach
Jochen Hoffmann

E-Mail: sicherheitsdatenblatt@sarstedt.com
Internet: www.sarstedt.com
Responsible Department: R & D Centre

1.4. Emergency telephone number:
Poison Centre in Bonn (Germany): +49 (0)228 / 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)
Skin irritation, Category 2  H315: Causes skin irritation.
Eye irritation, Category 2  H319: Causes serious eye irritation.
Skin sensitization, Category 1  H317: May cause an allergic skin reaction.

Classification (67/548/EEC, 1999/45/EC)
Sensitizing  R43: May cause sensitization by skin contact.
Irritant  R36/38: Irritating to eyes and skin.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms:
Signal word: Warning

Hazard statements:
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.

Precautionary statements:
**Prevention:**
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P264 Wash skin thoroughly after handling.
- P280 Wear protective gloves/ eye protection/ face protection.

**Response:**
- P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
- P337 + P313 If eye irritation persists: Get medical advice/ attention.

**Disposal:**
- P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:
- 55965-84-9 mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

**Label elements**
This product contains a preparation of less than 125 ml. Due to the classification of the preparation a reduced labelling can be used for this article in accordance with the ordinance (EC) No. 1272/2008.

2.3 **Other hazards**
No information available.

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

3.2 **Mixtures**

**Hazardous components**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)</td>
<td>55965-84-9</td>
<td>T; R23/24/25 C; R34 R43 N; R50-R53</td>
<td>Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410</td>
<td>&gt;= 0.06 - &lt; 0.1</td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.
SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled:
Move to fresh air.
If unconscious place into recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact:
If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact:
Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed:
Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract free.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5: Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting: No information available.
5.3 Advice for fire fighters

Special protective equipment for fire fighters:
- Wear self-contained breathing apparatus for fire fighting if necessary.
- Further information:
  - Standard procedure for chemical fires.
  - Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:
- Use personal protective equipment.
- Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions:
- Prevent product from entering drains.
- Prevent further leakage or spillage if safe to do so.
- Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up:
- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Treat recovered material as described in the section "Disposal considerations".

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling:
- Do not breathe vapours/dust.
- Avoid exposure – obtain special instructions before use.
- Avoid contact with skin and eyes.
- For personal protection see section 8.
- Smoking, eating, and drinking should be prohibited in the application area.
- Dispose of rinse water in accordance with local and national regulations.
- Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Advice on protection against fire and explosion:
- Normal measures for preventive fire protection.
7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:
- Keep container tightly closed in a dry and well-ventilated place.
- Electrical installations / working materials must comply with the technological safety standards.
- See label.
- 12 non-combustible liquids
- No decomposition if stored and applied as directed.

Further information on storage conditions:

German storage class (LGK):
- 12 non-combustible liquids

Other data:
- 7.3 Specific end use(s)
  - Specific use(s):
    - Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Compounds</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)</td>
<td>55965-84-9</td>
<td>AGW</td>
<td>0.2 mg/m³</td>
<td>DE TRGS 900</td>
<td></td>
</tr>
</tbody>
</table>

Further information:
- DFG: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).
- When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child.

8.2 Exposure controls

Personal protective equipment
Hand protection:

Protective gloves
- The selected protective gloves have to satisfy the Specifications of EU-Directive 89/686/EEC and the standard EN 374 derived from it.
- This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us.
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection: Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection: Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

Environmental exposure controls
General advice:
Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>none</td>
</tr>
<tr>
<td>pH</td>
<td>6.9 – 7.3</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>no data available</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>approx. 100 °C, 1.013 hPa</td>
</tr>
<tr>
<td>Flash point</td>
<td>does not flash</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Density</td>
<td>1 g/cm³, 20 °C</td>
</tr>
<tr>
<td>Water solubility</td>
<td>completely miscible</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water:</td>
<td>no data available</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>The substance or mixture is not classified as oxidizing.</td>
</tr>
</tbody>
</table>

9.2 Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductivity</td>
<td>no data available</td>
</tr>
<tr>
<td>Oxidising potential</td>
<td>no data available</td>
</tr>
<tr>
<td>Surface tension</td>
<td>no data available</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

10.1 Reactivity
No dangerous reaction known under conditions of normal use.
10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Hazardous reactions: Further information: No decomposition if stored and applied as directed.

10.4 Conditions to avoid
Conditions to avoid: no data available

10.5 Incompatible materials
Materials to avoid: no data available

10.6 Hazardous decomposition products
Hazardous decomposition products: no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

**Product**

Acute oral toxicity: no data available
Acute inhalation toxicity: no data available
Acute dermal toxicity: no data available
Acute toxicity (other routes of administration): no data available
Skin corrosion/irritation: May cause skin irritation and/or dermatitis.
Serious eye damage/eye irritation: May cause irreversible eye damage.
Respiratory or skin sensitisation: Causes sensitisation.
Aspiration toxicity: no data available
Further information: no data available

**Components:**
Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one [EC No. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No. 220-239-6] (3:1):

Acute oral toxicity: LD50 Oral: 53 mg/kg, rat
Acute inhalation toxicity: Acute toxicity estimate: 3 mg/l, vapour, Expert judgement
Acute dermal toxicity: Acute toxicity estimate: 300 mg/kg, Expert judgement
Acute toxicity (other routes of administration): no data available
Skin corrosion/irritation: Result: Causes burns.
Serious eye damage/eye irritation: May cause irreversible eye damage.
Respiratory or skin sensitisation: May cause sensitisation by skin contact. May cause an allergic skin reaction.
Acute effects (assessment): Toxic if swallowed, in contact with skin or if inhaled
Further information: no data available

SECTION 12: Ecological information

12.1 Toxicity
Product:
Toxicity to fish: no data available
Toxicity to daphnia and other aquatic invertebrates: no data available
Toxicity to algae: no data available
Toxicity to bacteria: no data available

Ecotoxicology Assessment
Toxicity data on soil: Not expected to absorb on soil.
Other organisms relevant to the environment: no data available

Compounds:
Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one [EC No. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No. 220-239-6] (3:1):
Toxicity to fish: LC50: 0.36 mg/l, 96 h, fish
Toxicity to daphnia and other aquatic invertebrates: no data available
Toxicity to algae: no data available
Toxicity to bacteria: no data available

Ecotoxicology Assessment
Toxicity data on soil: Not expected to adsorb on soil.
Other organisms relevant to the environment: no data available
12.2 Persistence and degradability

**Product:**

Biodegradability: no data available

**Components:**

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No. 220-239-6] (3:1):

Biodegradability: no data available

12.3 Bioaccumulative potential

**Product:**

Bioaccumulation: no data available

**Components:**

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No. 220-239-6] (3:1):

Bioaccumulation: no data available

12.4 Mobility in soil

**Product:**

Mobility: no data available
Distribution among environmental compartments: no data available
Environmental fate and pathways: no data available
Physico-chemical removability: no data available

**Components:**

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No. 220-239-6] (3:1):

Mobility: no data available
Distribution among environmental compartments: no data available
Environmental fate and pathways: no data available
Physico-chemical removability: no data available

12.5 Results of PBT and vPvB assessment

**Product:**

Assessment: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

**Components:**

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No. 220-239-6] (3:1):

12.6 Other adverse effects

Product:
- Biochemical Oxygen Demand (BOD): no data available
- Dissolved organic carbon (DOC): no data available
- Chemical Oxygen Demand (COD): no data available
- Adsorbed organic bound halogens (AOX): no data available
- Additional ecological information: no data available

Components:
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No. 220-239-6] (3:1):
- Biochemical Oxygen Demand (BOD): no data available
- Dissolved organic carbon (DOC): no data available
- Chemical Oxygen Demand (COD): no data available
- Adsorbed organic bound halogens (AOX): no data available
- Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product:
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
Can be disposed as waste water when in compliance with local regulations.

Contaminated packaging:
Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number

ADR
Not dangerous goods

IMDG
Not dangerous goods
IATA
Not dangerous goods

14.2 Proper shipping name

ADR
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

14.3 Transport hazard class

ADR
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

14.4 Packing group

ADR
Not dangerous goods

IMDG
Not dangerous goods

IATA_C
Not dangerous goods

IATA_P
Not dangerous goods

14.5 Environmental hazards

ADR
Not dangerous goods

IMDG
Not dangerous goods
IATA
Not dangerous goods

14.6 Special precautions for user
Not dangerous goods in the meaning of ADR/RID, ADNR, IMDG-Code, IATA-DGR

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Remarks: not applicable

SECTION 15: Regulatory information

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

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislation</td>
<td>Directive 96/82/EC does not apply</td>
</tr>
<tr>
<td>Water contamination class:</td>
<td>nwg not water endangering</td>
</tr>
<tr>
<td></td>
<td>Update: Classification acc. to VwVwS, annex 3.</td>
</tr>
<tr>
<td>TA Luft (Germany):</td>
<td>Total dust: not applicable</td>
</tr>
<tr>
<td></td>
<td>Inorganic substances in powdered form: not applicable</td>
</tr>
<tr>
<td></td>
<td>Inorganic substances in vapour or gaseous form: not applicable</td>
</tr>
<tr>
<td></td>
<td>Organic substances: portion class 1: 0.1%</td>
</tr>
<tr>
<td></td>
<td>Carcinogenic substances: not applicable</td>
</tr>
<tr>
<td></td>
<td>Mutagenic: not applicable</td>
</tr>
<tr>
<td></td>
<td>Toxic to reproduction: not applicable</td>
</tr>
</tbody>
</table>

15.2 Chemical Safety Assessment
A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3.

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R34 Causes burns.
R36/38 Irritating to eyes and skin.
R43 May cause sensitisation by skin contact.
R50 Very toxic to aquatic organisms.
R53 May cause long-term adverse effects in the aquatic environment.

Full text of H-phrases referred to under sections 2 and 3.

H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315  Causes skin irritation.
H317  May cause an allergic skin reaction.
H319  Causes serious eye irritation.
H331  Toxic if inhaled.
H400  Very toxic to aquatic life.
H410  Very toxic to aquatic life with long lasting effects.

Further information
The information contained herein is based on the present state of our knowledge and does not represent a guarantee of the properties of the product. Existing laws and regulations are to be observed by the user of our product at his responsibility.