

## Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations


Printing date: February 05, 2019

Revision: February 05, 2019

### 1 Identification

- **Product identifier**
- **Trade name:** **SYSMEX STERILIZER**
- **Other means of identification:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Diagnostic testing
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
SYSMEX AMERICA, Inc  
577 Aptakisic Road  
Lincolnshire, IL 60069 USA  
Phone: 847-996-4500  
1-800-3SYSMEX (1-800-379-7639)
- **Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924 (North America)  
+1 (813)248-0585 (International)

### 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
Carc. 2 H351 Suspected of causing cancer.
- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**  
  
GHS08
- **Signal word:** Danger
- **Hazard statements:**  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317 May cause an allergic skin reaction.  
H351 Suspected of causing cancer.
- **Precautionary statements:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing mist, vapors, or spray.  
P272 Contaminated work clothing must not be allowed out of the workplace.

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- P280 Wear protective gloves/protective clothing/eye protection.
- P284 [In case of inadequate ventilation] wear respiratory protection.
- P302+P352 If on skin: Wash with plenty of soap and water.
- P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.
- P363 Wash contaminated clothing before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

113-98-4	potassium [2S-(2 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )]-3,3-dimethyl-7-oxo-6-(phenylacetamido)-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate ⚠ Resp. Sens. 1A, H334 ⚠ Skin Sens. 1A, H317	<10%
27083-27-8	Poly (1-hexamethylenebiguanide hydrochloride) ⚠ Acute Tox. 2, H330 ⚠ Carc. 2, H351; STOT RE 1, H372 ⚠ Eye Dam. 1, H318 ⚠ Acute Tox. 4, H302; Skin Sens. 1B, H317	<1%

· **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.  
 For the wording of the listed Hazard Statements, refer to section 16.

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air.  
 Provide oxygen treatment if affected person has difficulty breathing.  
 In case of irregular breathing or respiratory arrest provide artificial respiration.  
 If experiencing respiratory symptoms: Call a poison center/doctor.

· **After skin contact:**

Immediately remove any clothing soiled by the product.  
 Immediately wash with water and soap and rinse thoroughly.  
 If skin irritation or rash occurs: Get medical advice/attention.

· **After eye contact:**

Remove contact lenses if worn, if possible.

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Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**• After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

**• Most important symptoms and effects, both acute and delayed:**

Asthma attacks

Breathing difficulty

Coughing

Allergic reactions

Nausea

Gastric or intestinal disorders

**• Danger:**

Danger of impaired breathing.

Suspected of causing cancer.

**• Indication of any immediate medical attention and special treatment needed:**

Contains potassium [2S-(2 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )]-3,3-dimethyl-7-oxo-6-(phenylacetamido)-4-thia-1-azabicyclo[3.2.0] heptane-2-carboxylate, Poly (1-hexamethylenebiguanide hydrochloride). May produce an allergic reaction. Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

In cases of irritation to the lungs, initial treatment with corticoid steroid inhalants.

### 5 Fire-fighting measures

**• Extinguishing media****• Suitable extinguishing agents:**

The product is not flammable.

Use fire fighting measures that suit the environment.

**• For safety reasons unsuitable extinguishing agents: None.****• Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

**• Advice for firefighters****• Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

### 6 Accidental release measures

**• Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

**• Environmental precautions**

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Avoid release to the environment.

Inform respective authorities in case of seepage into water course or sewage system.

**· Methods and material for containment and cleaning up**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Send for recovery or disposal in suitable receptacles.

**· Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### 7 Handling and storage

**· Handling****· Precautions for safe handling:**

Use only in well ventilated areas.

Avoid splashes or spray in enclosed areas.

Open and handle receptacle with care.

Avoid breathing mist, vapors, or spray.

Avoid contact with the eyes and skin.

**· Conditions for safe storage, including any incompatibilities****· Requirements to be met by storerooms and receptacles:**

Store in cool, dry conditions in well sealed receptacles.

**· Information about storage in one common storage facility:** Store away from foodstuffs.**· Specific end use(s)** No relevant information available.

### 8 Exposure controls/personal protection

**· Control parameters****· Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**· Exposure controls****· General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

**· Engineering controls:** No relevant information available.**· Breathing equipment:**

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

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· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Eye protection:**



Safety glasses

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment**

Avoid release to the environment.

· **Risk management measures** No relevant information available.

### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **Appearance:**

Form: Liquid

Color: Clear

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value at 20 °C (68 °F):** 7

· **Melting point/Melting range:** Not determined.

· **Boiling point/Boiling range:** 100 °C (212 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits**

Lower: Not determined.

Upper: Not determined.

· **Oxidizing properties:** Non-oxidizing.

· **Vapor pressure:** Not determined.

· **Density:** Not determined.

· **Relative density:** Not determined.

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- |   |                                    |
|---|------------------------------------|
| <b>· Vapor density:</b>                           | Not determined.                    |
| <b>· Evaporation rate:</b>                        | Not determined.                    |
| <b>· Solubility in / Miscibility with Water:</b>  | Fully miscible.                    |
| <b>· Partition coefficient (n-octanol/water):</b> | Not determined.                    |
| <b>· Viscosity</b>                                |                                    |
| <b>Dynamic:</b>                                   | Not determined.                    |
| <b>Kinematic:</b>                                 | Not determined.                    |
| <b>· Other information</b>                        | No relevant information available. |

### 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**  
Under fire conditions only:  
Carbon monoxide and carbon dioxide  
Nitrogen oxides (NOx)  
Chlorine

### 11 Toxicological information

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

**· LD/LC50 values that are relevant for classification:**

**113-98-4 potassium [2S-(2 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )]-3,3-dimethyl-7-oxo-6-(phenylacetamido)-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate**

Oral LD50 6257 mg/kg (mouse)  
8900 mg/kg (rat)

- **Primary irritant effect:**
- **On the skin:** Slight irritant effect on skin and mucous membranes.
- **On the eye:** Slight irritant effect on eyes.
- **Sensitization:** May cause sensitization by inhalation and skin contact.

**· IARC (International Agency for Research on Cancer):**

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None of the ingredients are listed.

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

· **Probable route(s) of exposure:**

- Ingestion.
- Inhalation.
- Eye contact.
- Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Suspected of causing cancer.
- **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.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity** Harmful to aquatic life with long lasting effects.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

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### 14 Transport information

- |  |                 |
|--|-----------------|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· DOT, ADR/RID/ADN, IMDG, IATA</li> </ul>                                   | Not regulated.  |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· DOT, ADR/RID/ADN, IMDG, IATA</li> </ul>                     | Not regulated.  |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· DOT, ADR/RID/ADN, IMDG, IATA</li> <li>· Class</li> </ul> | Not regulated.  |
| <ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· DOT, ADR/RID/ADN, IMDG, IATA</li> </ul>                               | Not regulated.  |
| <ul style="list-style-type: none"> <li>· <b>Environmental hazards</b></li> <li>· Marine pollutant:</li> </ul>                                  | No              |
| <ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> </ul>  | Not applicable. |
| <ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>             | Not applicable. |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for females:**

None of the ingredients are listed.

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· **Chemicals known to cause developmental toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL) (Substances not listed.):**

All ingredients are listed.

### 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.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 2: Acute toxicity – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Resp. Sens. 1: Respiratory sensitisation – Category 1

Resp. Sens. 1A: Respiratory sensitisation – Category 1A

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1A: Skin sensitisation – Category 1A

Skin Sens. 1B: Skin sensitisation – Category 1B

Carc. 2: Carcinogenicity – Category 2

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

· **Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))

Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do))

Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

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ChemTel Inc.  
1305 North Florida Avenue  
Tampa, Florida USA 33602-2902  
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573  
Website: [www.chemtelinc.com](http://www.chemtelinc.com)