Kit Name: $\alpha(2,6)$ -Sialyltransferase, recombinant

Kit PN: GKT-S26

This product is a multi-level kit, composed of the following modules and individual chemical components:

Kit Components

| Kit Component Part Number | Kit Component Name | Qty |
|------------------------------|---|---------|
| GKT-S26 | α(2,6)-Sialyltransferase, recombinant, 150 μg | 1 vial |
| WS0326 | 5x Reaction Buffer for GKT-S26, 1 ml | 1 vial |
| WS0329 | CMP-NANA, 10 mg | 3 vials |

SDSs for each component follow this cover sheet.

Transportation Information for the Kit:

Proper Shipping Names:

| Not Regulated Not Regulated Not Regulated | DOT | IATA/ICAO | China | |
|---|---------------|---------------|---------------|--|
| | Not Regulated | Not Regulated | Not Regulated | |





Revision Date: 01/15/2020 Issue Date: 05/07/2019

1 Identification

· Product identifier

• Product name: $\alpha(2,6)$ -Sialyltransferase, recombinant

· Product Code: GKT-S26

· Application of the substance / the mixture Reagents and Standards for Analytical Chemical Laboratory Use

· Details of the supplier of the safety data sheet

Manufacturer/Supplier:
 Agilent Technologies, Inc.
 5301 Stevens Creek Blvd
 Santa Clara, CA 95051, USA

• Email: pdl-msds_author@agilent.com • Phone number: 800-227-9770

· Emergency telephone number: CHEMTREC®: 1-800-424-9300

2 Hazard identification

· Classification of the substance or mixture

The product is not classified, according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Precautionary statements

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

In case of inadequate ventilation wear respiratory protection.

If swallowed: Call a doctor if you feel unwell.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

If on skin: Wash with plenty of soap and water.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Collect spillage.

Store in accordance with local/regional/national/international regulations.

Store in a well-ventilated place. Keep container tightly closed.

Store separately.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
- · NFPA ratings (scale 0 4)



(Contd. on page 2)

Revision Date: 01/15/2020 Issue Date: 05/07/2019

Product name: $\alpha(2,6)$ -Sialyltransferase, recombinant

· HMIS-ratings (scale 0 - 4)

Health = 00 REACTIVITY 0

Fire = 0Reactivity = 0

(Contd. of page 1)

3 Composition/Information on ingredients

- · Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.
- · Dangerous components: Void

4 First aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Firefighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures
- Wear protective gloves / eye protection / face protection.
- · Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up: Pick up mechanically.
- 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.

Revision Date: 01/15/2020 Issue Date: 05/07/2019

Product name: $\alpha(2,6)$ -Sialyltransferase, recombinant

(Contd. of page 2)

7 Handling and storage

- · Handling:
- · Precautions for safe handling Wear protective gloves / eye protection / face protection.
- Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · 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.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- · Protection of hands:

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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- · Material of gloves Wear suitable gloves.
- · Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Wear eye protection / face protection.

9 Physical and chemical properties

| Information on basic physical and chemical properties | |
|---|--------|
| General Information | |
| · Appearance: | |
| Form: | Liquid |

Color: Colorless

Odor: Odorless

Odor threshold: Not determined.

· pH-value at 20 °C: 8.4

· Change in condition

Melting point/Melting range:Undetermined.Boiling point/Boiling range:100 ℃

· Flash point: Not applicable.

(Contd. on page 4)

Revision Date: 01/15/2020 Issue Date: 05/07/2019

Product name: $\alpha(2,6)$ -Sialyltransferase, recombinant

| | | (Contd. of page 3 |
|---------------------------------------|---|-------------------|
| · Flammability (solid, gaseous): | Not determined. | |
| · Decomposition temperature: | Not determined. | |
| · Auto igniting: | Product is not selfigniting. | |
| · Danger of explosion: | Product does not present an explosion hazard. | |
| · Explosion limits: | | |
| Lower: | Not determined. | |
| Upper: | Not determined. | |
| · Vapor pressure at 20 ℃: | 23 hPa | |
| Density: | Not determined. | |
| · Relative density | Not determined. | |
| · Vapor density | Not applicable. | |
| · Evaporation rate | Not applicable. | |
| · Solubility in / Miscibility with | | |
| Water: | Insoluble. | |
| · Partition coefficient (n-octanol/wa | ter): Not determined. | |
| · Viscosity: | | |
| Dynamic at 20 ℃: | 0.952 mPas | |
| Kinematic: | Not applicable. | |
| · Solvent content: | | |
| Water: | 97.3 % | |
| · Other information | No further relevant information available. | |

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- on the skin: May be harmful in contact with skin.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

(Contd. on page 5)

Revision Date: 01/15/2020 Issue Date: 05/07/2019

Product name: α(2,6)-Sialyltransferase, recombinant

(Contd. of page 4)

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not hazardous for water.
- · Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.
- Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

| 14 Transport information | | |
|--|-----------------|---------|
| · UN-Number · DOT/TDG, ADR, ADN, IMDG, IATA | not regulated | |
| · UN proper shipping name · DOT/TDG, ADR, ADN, IMDG, IATA | not regulated | |
| · Transport hazard class(es) | | |
| · DOT, ADR, ADN, IMDG, IATA · Class | not regulated | |
| · Packing group · DOT/TDG, ADR, IMDG, IATA | not regulated | |
| · Environmental hazards: | Not applicable. | |
| | | (0 11 0 |

Revision Date: 01/15/2020 Issue Date: 05/07/2019

Product name: $\alpha(2,6)$ -Sialyltransferase, recombinant

| | | (Contd. of page 5) |
|---------------------------------------|-----------------|--------------------|
| · Special precautions for user | Not applicable. | |
| · Transport in bulk according to Anne | x II of | |
| MARPOL73/78 and the IBC Code | Not applicable. | |
| · UN "Model Regulation": | not regulated | |

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

| ·TSCA | (Toxic | Substances | Control | Act): |
|-------|--------|-------------------|---------|-------|
|-------|--------|-------------------|---------|-------|

| 7647-14-5 | sodium chloride | ACTIVE |
|-----------|---|--------|
| 4432-31-9 | 2-morpholinoethanesulphonic acid | ACTIVE |
| 7732-18-5 | water, distilled, conductivity or of similar purity | ACTIVE |

· Canadian substance listings:

· Canadian Domestic Substances List (DSL)

| 7647-14-5 | endium | chloride |
|-----------|--------|----------|

4432-31-9 2-morpholinoethanesulphonic acid

7732-18-5 water, distilled, conductivity or of similar purity

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

None of the ingredients is listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Precautionary statements

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

In case of inadequate ventilation wear respiratory protection.

If swallowed: Call a doctor if you feel unwell.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

If on skin: Wash with plenty of soap and water.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Collect spillage.

Store in accordance with local/regional/national/international regulations.

Store in a well-ventilated place. Keep container tightly closed.

Store separately.

Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 7)

Revision Date: 01/15/2020 Issue Date: 05/07/2019

Product name: $\alpha(2,6)$ -Sialyltransferase, recombinant

(Contd. of page 6)

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

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Revision Date: 01/10/2020 Issue Date: 09/26/2019

1 Identification

· Product identifier

· Product name: 5x Reaction Buffer for GKT-S26

· Product Code: WS0326

· Application of the substance / the mixture Reagents and Standards for Analytical Chemical Laboratory Use

Details of the supplier of the safety data sheet

• Manufacturer/Supplier: Agilent Technologies, Inc. 5301 Stevens Creek Blvd

Santa Clara, CA 95051, USA
• Email: pdl-msds author@agilent.com

• **Phone number:** 800-227-9770

· Emergency telephone number: CHEMTREC®: 1-800-424-9300

2 Hazard identification

· Classification of the substance or mixture

The product is not classified, according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a doctor if you feel unwell.

Rinse mouth.

If on skin: Wash with plenty of soap and water.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Collect spillage.

Store in accordance with local/regional/national/international regulations.

Store separately.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
- · NFPA ratings (scale 0 4)



 $\begin{aligned} & \text{Health} = 0 \\ & \text{Fire} = 0 \\ & \text{Reactivity} = 0 \end{aligned}$

· HMIS-ratings (scale 0 - 4)



Health = 0 Fire = 0 Reactivity = 0

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Revision Date: 01/10/2020 Issue Date: 09/26/2019

Product name: 5x Reaction Buffer for GKT-S26

(Contd. of page 1)

3 Composition/Information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.
- · Dangerous components:

64-19-7 acetic acid

1.3% w/w

4 First aid measures

- Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Firefighting measures

- · Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures
- Wear protective gloves / eye protection / face protection.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

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

· 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 Wear protective gloves / eye protection / face protection.
- · Information about protection against explosions and fires: No special measures required.

(Contd. on page 3)

Revision Date: 01/10/2020 Issue Date: 09/26/2019

Product name: 5x Reaction Buffer for GKT-S26

(Contd. of page 2)

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/ Personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

64-19-7 acetic acid

- EL Short-term value: 15 ppm Long-term value: 10 ppm
- EV Short-term value: 37 mg/m³, 15 ppm Long-term value: 25 mg/m³, 10 ppm
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
- Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

7.5

- · Material of gloves Wear suitable gloves.
- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Wear eye protection / face protection.

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- General Information
- · Appearance:

Form: Liquid
Color: Colorless
Odor: Odorless
Odor threshold: Not determined.

· pH-value at 20 °C:

Change in condition

Melting point/Melting range: 0 %Boiling point/Boiling range: 100 %

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not applicable.

(Contd. on page 4)

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Product name: 5x Reaction Buffer for GKT-S26

| | | (Contd. of page |
|-------------------------------------|---|-----------------|
| Decomposition temperature: | Not determined. | |
| Auto igniting: | Product is not selfigniting. | |
| Danger of explosion: | Product does not present an explosion hazard. | |
| Explosion limits: | | |
| Lower: | Not determined. | |
| Upper: | Not determined. | |
| Vapor pressure at 20 ℃: | 23 hPa | |
| Density at 20 °C: | 0.99581 g/cm ³ | |
| Relative density | Not determined. | |
| Vapor density | Not determined. | |
| Evaporation rate | Not determined. | |
| Solubility in / Miscibility with | | |
| Water: | Not miscible or difficult to mix. | |
| Partition coefficient (n-octanol/wa | ter): Not determined. | |
| Viscosity: | | |
| Dynamic at 20 ℃: | 0.952 mPas | |
| Kinematic: | Not determined. | |
| Solvent content: | | |
| Organic solvents: | 1.3 % | |
| Water: | 95.7 % | |
| Solids content: | 0.0 % | |
| Other information | No further relevant information available. | |

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- on the skin: May be harmful in contact with skin.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

(Contd. on page 5)

Revision Date: 01/10/2020 Issue Date: 09/26/2019

Product name: 5x Reaction Buffer for GKT-S26

(Contd. of page 4)

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it 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 further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- * Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.
- Uncleaned packagings:
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

Not Regulated, De minimis Quantities

- · UN-Number
- · DOT/TDG, ADR, ADN, IMDG, IATA not regulated
- · UN proper shipping name
- · DOT/TDG, ADR, ADN, IMDG, IATA not regulated
- · Transport hazard class(es)
- DOT, ADR, ADN, IMDG, IATA
- · Class not regulated

(Contd. on page 6)

Revision Date: 01/10/2020 Issue Date: 09/26/2019

Product name: 5x Reaction Buffer for GKT-S26

| | | (Contd. of page 5 |
|-------------------------------------|-----------------|-------------------|
| · Packing group | | |
| · DOT/TDG, ADR, IMDG, IATA | not regulated | |
| · Environmental hazards: | Not applicable. | |
| · Special precautions for user | Not applicable. | |
| Transport in bulk according to Anne | ex II of | |
| MARPOL73/78 and the IBC Code | Not applicable. | |
| · UN "Model Regulation": | not regulated | |

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara

| · Section 355 (extremely hazardous substances): |
|---|
| None of the ingredients is listed. |
| · Section 313 (Specific toxic chemical listings): |

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act)·

| 130A (Toxic Substances Control Acty. | | |
|--------------------------------------|---|--------|
| 77-86-1 | trometamol | ACTIVE |
| 64-19-7 | acetic acid | ACTIVE |
| 7732-18-5 | water, distilled, conductivity or of similar purity | ACTIVE |

- Canadian substance listings:
- · Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

64-19-7 acetic acid

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a doctor if you feel unwell.

Rinse mouth.

If on skin: Wash with plenty of soap and water.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Collect spillage.

Store in accordance with local/regional/national/international regulations.

Store separately.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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Revision Date: 01/10/2020 Issue Date: 09/26/2019

Product name: 5x Reaction Buffer for GKT-S26

(Contd. of page 6)

16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

- CA





Revision Date: 01/15/2020 Issue Date: 09/26/2019

1 Identification

· Product identifier

Product name: CMP-NANA (10 mg vial)

· Product Code: WS0329

· CAS Number: 3063-71-6

· Application of the substance / the mixture Reagents and Standards for Analytical Chemical Laboratory Use

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Agilent Technologies, Inc. 5301 Stevens Creek Blvd Santa Clara, CA 95051, USA

• Email: pdl-msds_author@agilent.com • Phone number: 800-227-9770

· Emergency telephone number: CHEMTREC®: 1-800-424-9300

2 Hazard identification

· Classification of the substance or mixture

The substance is not classified, according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Precautionary statements

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center if you feel unwell.

If on skin: Wash with plenty of soap and water.

IF INHALED: Call a doctor if you feel unwell.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Collect spillage.

Store in accordance with local/regional/national/international regulations.

Store in a well-ventilated place. Keep cool.

Store separately.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
- · NFPA ratings (scale 0 4)



(Contd. on page 2)

Revision Date: 01/15/2020 Issue Date: 09/26/2019

Product name: CMP-NANA (10 mg vial)

· HMIS-ratings (scale 0 - 4)

Health = 0 0 REACTIVITY 0

Fire = 0Reactivity = 0 (Contd. of page 1)

3 Composition/Information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description

3063-71-6 Cytidine 5'-monophospho-N-acetylneuraminic acid, di-sodium salt

4 First aid measures

- Description of first aid measures
- · General information: No special measures required.
- · **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Firefighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
- Wear protective gloves / eye protection / face protection.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically.
- · 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.

Revision Date: 01/15/2020 Issue Date: 09/26/2019

Product name: CMP-NANA (10 mg vial)

(Contd. of page 2)

7 Handling and storage

- · Handling:
- · Precautions for safe handling Wear protective gloves / eye protection / face protection.
- Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- Specific end use(s) No further relevant information available.

8 Exposure controls/ Personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection: Wear eye protection / face protection.

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Powder
Color: Beige

Odor: Odorless
Odor threshold: Not determined.

· **pH-value:** Not applicable.

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

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|--|---|-----------------|
| · Flash point: | Not applicable. | |
| · Flammability (solid, gaseous): | Product is not flammable. | |
| · Decomposition temperature: | Not determined. | |
| · Auto igniting: | Not determined. | |
| Danger of explosion: | Product does not present an explosion hazard. | |
| · Explosion limits: | | |
| Lower: | Not determined. | |
| Upper: | Not determined. | |
| · Vapor pressure: | Not applicable. | |
| Density: | Not determined. | |
| · Relative density | Not determined. | |
| · Vapor density | Not applicable. | |
| · Evaporation rate | Not applicable. | |
| · Solubility in / Miscibility with | | |
| Water: | Soluble. | |
| · Partition coefficient (n-octanol/wat | ter): Not determined. | |
| · Viscosity: | | |
| Dynamic: | Not applicable. | |
| Kinematic: | Not applicable. | |
| Solids content: | 100.0 % | |
| · Other information | No further relevant information available. | |

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- Primary irritant effect:
- on the skin: May be harmful in contact with skin.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

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The substance is not subject to classification.

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- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it 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 further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation: Dispose of contents/container in accordance with local/regional/national/international regulations.
- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

| 14 Transport information | | | | |
|--|---------------|--|--|--|
| · UN-Number · DOT/TDG, ADR, ADN, IMDG, IATA | not regulated | | | |
| · UN proper shipping name · DOT/TDG, ADR, ADN, IMDG, IATA | not regulated | | | |
| · Transport hazard class(es) | | | | |
| · DOT, ADR, ADN, IMDG, IATA | | | | |
| · Class | not regulated | | | |
| · Packing group · DOT/TDG, ADR, IMDG, IATA | not regulated | | | |

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|--|-----------------|-------------------|
| · Environmental hazards: | Not applicable. | |
| · Special precautions for user | Not applicable. | |
| · Transport in bulk according to Annex | | |
| MARPOL73/78 and the IBC Code | Not applicable. | |
| · UN "Model Regulation": | not regulated | |

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is not listed.

- · Canadian substance listings:
- · Canadian Domestic Substances List (DSL)

Substance is not listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

Substance is not listed.

· Canadian Ingredient Disclosure list (limit 1%)

Substance is not listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Precautionary statements

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center if you feel unwell.

If on skin: Wash with plenty of soap and water.

IF INHALED: Call a doctor if you feel unwell.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store in accordance with local/regional/national/international regulations.

Store in a well-ventilated place. Keep cool.

Store separately.

Dispose of contents/container in accordance with local/regional/national/international regulations.

* Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

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