# Safety Data Sheet (SDS)

| Revision Number: 3.0                           | Last updated 31 July 2019   |
|--|---|
| 1. Product and Company Identification          | <u>on</u>   |
| Product Name:                                  | Cyclo (-RGDyK)<br>-HN - RGD Y(D-)K - CO-  |
| Manufacturer/Supplier:                         | AnaSpec, Inc.  www.anaspec.com  34801 Campus Drive Fremont, CA 94555 Tel: 510-791-9560 Fax: 510-791-9572 Email: service@anaspec.com  Kaneka Eurogentec SA, Rue du Bois Saint Jean 5 4102 Seraing Belgium Tel. +32-4-3727400 Fax. +32-4-3727500 E-mail info@eurogentec.com  Kaneka Eurogentec Helpdesk |
|  | Tel. +32-4-3727665  |
| Catalog Number Relevant identified uses of the | AS-61183-5  |
| substance/preparation and uses advised against | For laboratory use only.  |
| Emergency information                          | Please contact the regional Eurogentec representation in your country or Kaneka Eurogentec S.A. directly (from 8 am to 6 pm)  |
| 2. Hazards Identification                      |   |
|  | ecommend handling all chemicals with caution. Use proper dling chemicals. To our knowledge, the hazards of this material  |
|  | angerous substance according to the GHS cards: Not a dangerous substance according to the GHS   |
| GHS Signal Words: None                         |   |

GHS Hazard Statements: None

GHS Precautionary Statements: None

Potential Health Effects for:

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give

oxygen. Good hygiene practice requires that exposure be kept to a minimum and that suitable control

measures be used in an occupational setting.

Ingestion: If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Skin: In case of contact, immediately wash skin with soap and copious amount of water.

Eyes: In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Chronic Exposures: No information available. We recommend limiting prolonged exposure.

Target Organs: No information available

HMIS Classification

Health hazard: 0

Chronic Health Hazard: 0

Flammability: 0
Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

| 3. Composition |
|----------------|
|----------------|

Ingredients/Components:

Chemical Name: Cyclo (-RGDyK)

-HN - RGD Y(D-)K - CO-

Molecular formula: NA Molecular weight: 619.7

CAS-No NA EC-No NA

# 4. First Aid Measures

| Inhalation: | If dust is inhaled, remove from contaminated area.  |  |  |
|-------------|---|--|--|
| innatation. |   |  |  |
|             | Encourage patient to blow nose to ensure clear passage of breathing.                                |  |  |
|             | If irritation or discomfort persists seek medical attention.  |  |  |
| Ingestion:  | If swallowed do <b>NOT</b> induce vomiting.   |  |  |
|             | If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to |  |  |
|             | maintain open airway and prevent aspiration.  |  |  |
|             | Observe the patient carefully.  |  |  |
|             | Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably   |  |  |
|             | drink.  |  |  |
|             | Seek medical advice.  |  |  |
| Skin:       | If skin or hair contact occurs:   |  |  |
|             | Flush skin and hair with running water (and soap if available).                                     |  |  |
|             | Seek medical attention in event of irritation.  |  |  |
| Eyes:       | If this product comes in contact with the eyes:   |  |  |
|             | Wash out immediately with fresh running water.  |  |  |
|             | Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the     |  |  |
|             | eyelids by occasionally lifting the upper and lower lids.   |  |  |
|             | If pain persists or recurs seek medical attention.  |  |  |
|             | r r   |  |  |
|             |   |  |  |

| T                                | <u>sures</u>   | TXX   |  |
|----------------------------------|--|---|--|
| Extinguishing media:             |  | Water spray or fog.   |  |
|                                  |  | Alcohol resistant foam.  Dry chemical powder.   |  |
|                                  |  | BCF (where regulations permit).   |  |
|                                  |  | Carbon dioxide  |  |
|                                  |  | Caroon dioxide  |  |
| Special firefighting procedures: |  | Alert Emergency Responders and tell them location and nature of   |  |
|                                  |  | hazard.   |  |
|                                  |  | Wear breathing apparatus plus protective gloves.  |  |
|                                  |  | Prevent, by any means available, spillage from entering drains or water course.   |  |
|                                  |  | Use water delivered as a fine spray to control fire and cool adjacent   |  |
|                                  |  | area.   |  |
|                                  |  | <b>DO NOT</b> approach containers suspected to be hot.  |  |
|                                  |  | Cool fire exposed containers with water spray from a protected location.  |  |
|                                  |  | If safe to do so, remove containers from path of fire.  |  |
|                                  |  | Equipment should be thoroughly decontaminated after use.  |  |
| Unusual fire and explo           | sions hazards:   | Emits toxic fumes under fire conditions   |  |
| 6. Accidental Release            | Measures   |   |  |
| Spill response                   | Remove a   | Il ignition sources.  |  |
|                                  | Clean up all spills immediately.   |   |  |
|                                  |  | Avoid contact with skin and eyes.   |  |
|                                  |  | ersonal contact by using protective equipment.  |  |
|                                  |  | ean up procedures and avoid generating dust.  |  |
|                                  |  |   |  |
|                                  |  | suitable, labeled container for waste disposal  |  |
| Containment                      | Avoid all  | personal contact, including inhalation.   |  |
| Containment                      | Avoid all j<br>Wear prot   | personal contact, including inhalation. ective clothing when risk of exposure occurs.   |  |
| Containment                      | Avoid all j<br>Wear prot<br>Use in a w   | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area.   |  |
| Containment                      | Avoid all y<br>Wear prot<br>Use in a w<br>DO NOT   | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked.  |  |
| Containment                      | Avoid all y<br>Wear prot<br>Use in a w<br>DO NOT of<br>DO NOT of   | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils.   |  |
| Containment                      | Avoid all y<br>Wear prot<br>Use in a w<br>DO NOT of<br>DO NOT of<br>Avoid con  | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. utact with incompatible materials.  |  |
| Containment                      | Avoid all wear protection as wear protection as we do not a second conference of the | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. etact with incompatible materials. dling, DO NOT eat, drink or smoke.   |  |
| Containment                      | Avoid all wear protection as wear protection as wear poor of the protection and the protection are wear and the protection are wear and the protection and the protection are wear and the protection are well as a protection are w | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. ttact with incompatible materials. dling, DO NOT eat, drink or smoke. ainers securely sealed when not in use.   |  |
| Containment                      | Avoid all y Wear prote Use in a w DO NOT o DO NOT o Avoid con When han Keep cont Avoid phy   | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. ttact with incompatible materials. dling, DO NOT eat, drink or smoke. ainers securely sealed when not in use. vsical damage to containers.  |  |
| Containment                      | Avoid all y Wear prote Use in a w DO NOT o DO NOT o Avoid con When han Keep cont Avoid phy Always wo   | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. attact with incompatible materials. dling, DO NOT eat, drink or smoke. ainers securely sealed when not in use. vsical damage to containers. ash hands with soap and water after handling.   |  |
| Containment                      | Avoid all y Wear prote Use in a w DO NOT of DO NOT of Avoid con When han Keep cont Avoid phy Always wo   | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. utact with incompatible materials. dling, DO NOT eat, drink or smoke. ainers securely sealed when not in use. vsical damage to containers. ash hands with soap and water after handling. occupational work practice.  |  |
| Containment                      | Avoid all y Wear prote Use in a w DO NOT of DO NOT of Avoid con When han Keep cont Avoid phy Always wo Use good Empty con  | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. utact with incompatible materials. dling, DO NOT eat, drink or smoke. ainers securely sealed when not in use. vsical damage to containers. ash hands with soap and water after handling.  |  |
| Containment                      | Avoid all y Wear prote Use in a w DO NOT of DO NOT of Avoid con When han Keep cont Avoid phy Always wo Use good Empty con following source.  | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. utact with incompatible materials. dling, DO NOT eat, drink or smoke. ainers securely sealed when not in use. vsical damage to containers. ash hands with soap and water after handling. occupational work practice. utainers may contain residual dust which has the potential to accumulate settling. Such dusts may explode in the presence of an appropriate ignition   |  |
| Containment                      | Avoid all y Wear prote Use in a w DO NOT of DO NOT of Avoid con When han Keep cont Avoid phy Always wo Use good Empty con following source.  | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. tact with incompatible materials. dling, DO NOT eat, drink or smoke. ainers securely sealed when not in use. vsical damage to containers. ash hands with soap and water after handling. occupational work practice. ntainers may contain residual dust which has the potential to accumulate  |  |
| Containment PPE                  | Avoid all y Wear prote Use in a w DO NOT of DO NOT of Avoid con When han Keep cont Avoid phy Always w Use good Empty con following source. Do NOT of   | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. utact with incompatible materials. dling, DO NOT eat, drink or smoke. ainers securely sealed when not in use. vsical damage to containers. ash hands with soap and water after handling. occupational work practice. utainers may contain residual dust which has the potential to accumulate settling. Such dusts may explode in the presence of an appropriate ignition   |  |
|                                  | Avoid all y Wear prote Use in a w DO NOT of DO NOT of Avoid con When han Keep cont Avoid phy Always w Use good Empty con following source. Do NOT of   | personal contact, including inhalation. ective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. stact with incompatible materials. dling, DO NOT eat, drink or smoke. ainers securely sealed when not in use. vsical damage to containers. ash hands with soap and water after handling. occupational work practice. ntainers may contain residual dust which has the potential to accumulate settling. Such dusts may explode in the presence of an appropriate ignition cut, drill, grind or weld such containers |  |

| 8. Exposure Controls      | / Personal Protectic  | an  |  |  |
|---------------------------|---|---|--|--|
|                           |   | <del></del>   |  |  |
| Engineering controls      |   | tilation is required where solids are handled as powders or crystals;     |  |  |
|                           |   | lates are relatively large, a certain proportion will be powdered by      |  |  |
|                           | mutual friction.  |   |  |  |
|                           |   | n should be designed to prevent accumulation and re-circulation of        |  |  |
|                           | particulates in the   |   |  |  |
|                           | If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of:  (a): particle dust respirators, if necessary, combined with an absorption cartridge; |   |  |  |
|                           |   |   |  |  |
|                           | <ul><li>(b): filter respirators with absorption cartridge or canister of the right type;</li><li>(c): fresh-air hoods or masks</li><li>Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.</li></ul>              |   |  |  |
|                           |   |   |  |  |
|                           |   |   |  |  |
|                           |   |   |  |  |
|                           |   | on measures such as explosion venting.                                    |  |  |
|                           |   | generated in the workplace possess varying "escape" velocities which,     |  |  |
|                           |   | the "capture velocities" of fresh circulating air required to efficiently |  |  |
| DDC                       | remove the contaminant.  Use personal protective equipment  |   |  |  |
| PPE                       | Use personal prote  | ective equipment  |  |  |
| 0. Dl                     | !1 D  |   |  |  |
| 9. Physical and Chemi     | -   |   |  |  |
| Physical State            | White Powder  |   |  |  |
| Odour                     | Not available   |   |  |  |
| Solubility in Water       | Not available   |   |  |  |
| Specific Gravity          | Not available   |   |  |  |
| рН                        | Not available   |   |  |  |
| Boiling Point             | Not available   |   |  |  |
| Melting Point             | Not available   |   |  |  |
| Flash Point               | N/A   |   |  |  |
| Vapor Pressure:           | N/A   |   |  |  |
| Vapor Density:            | N/A   |   |  |  |
| 10. Stability and Read    | <u>ctivity</u>  |   |  |  |
| Thermal Decomposition     | n   | No data available   |  |  |
| Dangerous Products of     | Decomposition   | No data available   |  |  |
| Dangerous Reactions       |   | COx, NOx when burned  |  |  |
| Keep container tightly of | closed in a dry well-v  | ventilated place. Store in -20 °C, dry refrigerator.                      |  |  |
| 11. Toxicological Info    | <u>ormation</u>   |   |  |  |
| RTECS Number              |   | N/A   |  |  |
| T                         |   | NT ' C '1.11  |  |  |

**Toxicity** 

No information available.

| Health Hazards                            | Although ingestion is not thought to produce harmful       |
|---|--|
|   | effects, the material may still be damaging to the         |
|   | health of the individual following ingestion, especially   |
|   | where pre-existing organ (e.g. liver, kidney)              |
|   | damage is evident. In an occupational setting however,     |
|   | ingestion of insignificant quantities is not thought to be |
|   | cause for concern.   |
| Potential Hazards                         | Not available  |
| Carcinogenicity:                          | No significant acute toxicological data identified         |
| OSHA Permissible Exposure Limit(PEL) Data | N/A  |
| ACGIH Threshold Limit Values (TLV)        | N/A  |
| (12)                                      | - "  |

Reproductive Toxicity:

No information available

## 12. Ecological Information

No information available.

## 13. Disposal Considerations

All waste must be handled in accordance with local, state and federal regulations. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

## 14. Transport Information

| -                          |     |
|----------------------------|-----|
| Hazard Class               | N/A |
| Identification Number      | N/A |
| Packing Group              | N/A |
| Proper Shipping Name (DOT) | N/A |

#### 15. Regulatory Information

California Proposition 65: N/A

US TSCA (Toxic Substance Control Act): N/A

US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act: N/A

US SARA Title III (Superfund Amendments and Reauthorization Act: N/A

US Other: N/A

EC EINICS (European Inventory of Existing Commercial Chemical Substances) Number: N/A

EC Risk Statements: N/A

Other Country Regulations: N/A

#### 16. Other Information

It is not intended for food, drug, household, agricultural or cosmetic use. A technically qualified individual experienced in handling potentially hazardous chemicals must supervise its use. The above information is believed

to be correct but does not purport to be all inclusive and shall be used only as a guide. Users should make independent decisions regarding completeness of the information based on all sources available. AnaSpec shall not be held liable for any damage resulting from handling or from contact with the above product.