BERRY & ASSOCIATES/ICON ISOTOPES

Safety Data Sheet Spacer-C12 CEP

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

1.1 Product identifier

| Product name | Spacer-C12 CEP |
|----------------|--------------------------|
| Product number | BA 0134 |
| Brand | Berry & Associates, Inc. |
| Substance name | Spacer-C12 CEP |
| CAS no. | 158665-27-1 |

1.2 Relevant identified uses of the substance or mixture and uses advised against Laboratory chemicals; Manufacture of substance

1.3 Details of the supplier of the safety data sheet

| Name Address | Berry & Associates/ICON Isotopes 2434 Bishop Circle East Dexter, MI 48130 USA |
|-----------------|--|
| Telephone | 734-426-3787 |

| reiephone | 134-420-3707 |
|-----------|-----------------------|
| Fax | 734-426-9077 |
| email | orders@berryassoc.com |

1.4 Emergency telephone number

USA /Canada 800-424-9300 All else 703-527-3887

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- Acute toxicity, oral (chapter 3.1), Cat. 5
- Acute toxicity, dermal (chapter 3.1), Cat. 5
- Eye damage/irritation (chapter 3.3), Cat. 2B
- Acute toxicity, inhalation (chapter 3.1), Cat. 5

2.2 GHS label elements, including precautionary statements

Hazard statement(s)

| H303 | May be harmful if swallowed |
|------|-------------------------------------|
| H313 | May be harmful in contact with skin |
| H320 | Causes eye irritation |
| H333 | May be harmful if inhaled |

Precautionary statement(s)

| P312 | Call a POISON CENTER/doctor/ if you feel unwell. |
|----------------|---|
| P264 | Wash hands thoroughly after handling. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and |
| | easy to do. Continue rinsing. |

| P337+P313 | If eye irritation persists: Get medical advice/attention. |
|-----------|---|
| P304+P312 | IF INHALED: Call a POISON CENTER/doctor if you feel unwell. |

SECTION 3: Composition/information on ingredients

3.1 Substances

| Substance name CAS no. Formula | Spacer-C12 CEP 158665-27-1 C ₄₂ H ₆₁ N ₂ O ₅ P | |
|--------------------------------------|--|--|
| Molecular weight | 704.92 | |

SECTION 4: First aid measures

4.1 Description of first aid measures

| Following inhalation | Move to fresh air. Get medical attention if symptoms occur. |
|------------------------|---|
| Following skin contact | Wash skin with soap and water. |
| Following eye contact | Immediately flush eyes with water for at least 15 minutes. Get medical attention if symptoms occur. |
| Following ingestion | Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |

SECTION 5: Firefighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Solid water stream may be inefficient.

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus if necessary and full protective gear to prevent contact with skin and eyes.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid raising and breathing dust, provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus and appropriate personal protection (safety goggles, heavy rubber gloves and rubber boots).

6.2 Environmental precautions

Take measures to avoid release into the environment, do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Contain spill and collect as appropriate. Sweep up and shovel. Transfer to chemical waste container in accordance with local regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep container tightly sealed.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed and in a dry, well-ventilated area at -20 °C, dry. Protect from heat and store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Use industrial hygiene practices to control hazardous materials. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands after use.

Personal protection equipment

Eye and face protection Safety glasses

Skin protection Chemical-resistant gloves

Respiratory protection

NIOSH approved respirator, as conditions warrant.

Environmental exposure controls

Do not let material enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| Appearance | Syrup |
|---|-------------------------------|
| Odor | No data available. |
| Odor threshold | No data available. |
| pН | No data available. |
| Melting point / freezing point | No data available. |
| Initial boiling point and boiling range | No data available. |
| Flash point | No data available. |
| Evaporation rate | No data available. |
| Flammability (solid, gas) | No data available. |
| Upper/lower flammability limits | No data available. |
| Upper/lower explosive limits | No data available. |
| Vapor pressure | No data available. |
| Vapor density | No data available. |
| Relative density | No data available. |
| Solubilit(ies) | Soluble in DMSO, Acetonitrile |
| Partition coefficient: n-octanol/water | No data available. |

Auto-ignition temperature Decomposition temperature Viscosity Explosive properties Oxidizing properties No data available. No data available. No data available. No data available. No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability Stable under recommended storage conditions: -20 °C, dry.

10.3 Possibility of hazardous reactions

Reacts with strong oxidizing agents.

10.4 Conditions to avoid No data available.

- **10.5** Incompatible materials Heat.
- **10.6 Hazardous decomposition products** No data available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity May be harmful if swallowed.

Skin corrosion/irritation No data available.

Serious eye damage/irritation May cause eye irritation.

Respiratory or skin sensitization No data available.

Germ cell mutagenicity No data available.

Carcinogenicity No data available.

Reproductive toxicity No data available.

Summary of evaluation of the CMR properties No data available.

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STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

SECTION 12: Ecological information

12.1 Toxicity

No data available.

- **12.2 Persistence and degradability** No data available.
- **12.3 Bioaccumulative potential** No data available.
- **12.4 Mobility in soil** No data available.
- **12.5 Results of PBT and vPvB assessment** No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal of the product Dispose in accordance with local, state and federal regulations.

Disposal of contaminated packaging

Dispose in accordance with local, state and federal regulations.

SECTION 14: Transport information

DOT (US), IMDG, IATA

Not a dangerous good

SECTION 16: Other information

Further information/disclaimer

The Information in this Safety Data Sheet is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. The information given in the Safety Data Sheet is designed only as guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Users should make independent decisions regarding completeness of information based on all sources available. Berry & Associates, Inc. shall not be held liable for any damage resulting from handling or contact with the above product.