BERRY & ASSOCIATES/ICON ISOTOPES

Safety Data Sheet 2-Thio-dT CEP

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

1.1 Product identifier

Product name 2-Thio-dT CEP Product number BA 0013

Brand Berry & Associates, Inc.

Substance name 3'-O-[(Diisopropylamino)(2-cyanoethoxy)phosphino]-5'-O-(4,4'-dimethoxytrityl)-

 N^3/O^4 -toluyl-2-thiothymidine

CAS no. 156783-23-2 and 156783-15-2

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 Berry & Associates/ICON Isotopes

Address 2434 Bishop Circle East

Dexter, MI 48130 USA

Telephone 734-426-3787 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

GHS classification in accordance with OSHA (29 CFR 1910.1200)

Not a hazardous substance or mixture

2.2 Label elements

Not a hazardous substance or mixture

2.3 Other hazards

Not a hazardous substance or mixture

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name 2-Thio-dT CEP

CAS no. 156783-23-2 and 156783-15-2

Formula $C_{48}H_{55}N_4O_8PS$

Molecular weight 879.01

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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.

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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 Solid Odor No data available. Odor threshold No data available. No data available. рΗ No data available. Melting point / freezing point 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. No data available. Upper/lower flammability limits 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 Partition coefficient: n-octanol/water No data available. Auto-ignition temperature No data available. Decomposition temperature No data available. Viscosity No data available. Explosive properties No data available. Oxidizing properties No data available.

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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.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

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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.