SAFETY DATA SHEET

Revision Date 04/28/2018

1 OF 3

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifiers

Product name : N-t-boc-amido-dPEG-4-acid

Product Number : MDP220

: Advanced ChemTech Brand

: 756525-91-4 **CAS Number**

Relevant identified uses of the substance or mixture and uses advised against Identified uses

: Laboratory chemicals, Manufacture of substances 1.2

Details of the supplier of the safety data sheet 1.3 Company : Creosalus, Inc.

5609 Fern Valley Rd, Louisville, KY 40228 USA

: +1 800-456-1403 Telephone : +1 502-968-1000

Emergency telephone number : +1 800-424-9300 Chemtrec 1.4

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture: Not a hazardous substance or mixture.

- 2.2 GHS Label elements, including precautionary statements: Not a hazardous substance or mixture.
- 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : C₁₆H₃₁NO₈ Molecular Weight 365.42g/mole CAS Number : 756525-91-4 No ingredients are hazardous according to OSHA criteria.

No components need to be disclosed according to the applicable regulations.

4. FIRST AID MEASURES

Description of first aid measures 4.1

If inhaled: If breathed in, move person into fresh air, and keep at a resting position. If not breathing, give artificial respiration.

In case of skin contact: Wash off with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention if

In case of eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Do no induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

- 4.2 Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11
- Indication of any immediate medical attention and special treatment needed: Note to physician: Treat symptomatically, contact poison 4.3 control if large quantities have been ingested or inhaled.

5. FIREFIGHTING MEASURES

Extinguishing media 5.1

- Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

 Special hazards arising from the substance or mixture: In a fire or if heated, a pressure increase will occur and container could burst. 5.2
- Advice for firefighters: Wear self-contained breathing apparatus for fire fighting if necessary. Promptly isolate the scene by removing all 5.3 persons from the vicinity of the incident if there is a fire.
- Further information: No data available 5.4

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions, protective equipment, and emergency procedure: Evacuate surrounding areas. Keep unnecessary or unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. 6.1
- 6.2 Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- 6.3 Methods and materials for containment and cleaning up: Small spills: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water insoluble, absorb with an inert dry material and place in an appropriate waste disposal. Large spills: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, watercourses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor.
- Reference to other sections: For disposal, see section 13.

7. HANDLING AND STORAGE

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- Precautions for safe handling: Put on appropriate personal protective equipment.
- Conditions for safe storage, including any incompatibilities: Recommend storage temperature: -20°C (-4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
- 7.3 Specific end use(s): Apart from the uses mentioned in section 1.2 no other specific uses are stipulated fire protection. For precautions, see section 2.2.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace control parameters Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Personal protective equipment

Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection Use a properly fitted, air-purifying, or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Control of environmental exposure Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, tume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1	Information	on basic i	ohvsical	and ch	emical p	roperties

a) Appearance	Form: Colorless to amber liquid		
b) Odor	no data available		
c) Odor Threshold	no data available		
d) pH	no data available		
e) Melting point/freezing point	no data available		
f) Initial boiling point and boiling range	no data available		
g) Flash point	no data available		
h) Evaporation rate	no data available		
i) Flammability (solid, gas)	no data available		
j) Upper/lower flammability or explosive limits	no data available		
k) Vapor pressure	no data available		
I) Vapor density	no data available		
m) Relative density	no data available		
n) Water solubility	no data available		
o) Partition coefficient: n- octanol/water	no data available		
p) Auto-ignition temperature	no data available		
q) Decomposition temperature	no data available		
r) Viscosity	no data available		
s) Explosive properties	no data available		
t) Oxidizing properties	no data available		
Other safety information:	no data available		

10. STABILITY AND REACTIVITY

9.2

- Reactivity: No data available 10.1
- 10.2 Chemical stability: Stable under recommended storage conditions.
- Possibility of hazardous reactions: No data available 10.3
- 10.4 Conditions to avoid: No data available
- 10.5 Incompatible materials: Strong oxidizing agents
- 10.6 Hazardous decomposition products: Other decomposition products - no data available. In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: No data available Inhalation: No data available Dermal: No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential

carcinogen by OSHA.

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: No data available Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available

Additional Information: RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

- Toxicity: No data available 12.1
- 12.2 Persistence and degradability: No data available
- Bioaccumulative potential: No data available
 Mobility in soil: No data available 12.3
- 12.4
- Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted 12.5
- Other adverse effects: No data available 12.6

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US) Not dangerous goods **IMDG** Not dangerous goods IATA Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: No SARA Hazards

Massachusetts Right to Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components

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CAS-No. Revision Date

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New Jersey Right to Know Components

CAS-No. N-t-boc-amido-dPEG-4-acid

Revision Date

756525-91-4

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

HMIS Rating

Health hazard: 0 Chronic Health Hazard: 0 Flammability: 0 Physical Hazard 0 NFPA Rating Health hazard: 0 Fire Hazard: 0 Reactivity Hazard: 0

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. CreoSalus, Inc. shall not be liable for any damage resulting in the handling or from contact with the above product.

FORM: 272C-004F4-00