

## **Section 1 - Product and Company Identification**

### **1.1 Product identifiers**

Product name: 2'3'-c-di-AMP  
Catalog code: tlrl-nacda23  
CAS number: 1638241-77-6

### **1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified use: Laboratory chemicals

Disclaimer: All InvivoGen products are supplied for research and laboratory use only. Not for drug, household or other uses.

### **1.3 Details of the supplier of the safety data sheet**

Company: InvivoGen USA, 3950 Sorrento Valley Blvd, Suite 100  
San Diego, California 92121, USA  
(+1) 888 457 5873

InvivoGen Europe, 5 rue Jean Rodier  
31400 Toulouse, France  
+33 (0) 5 62 71 69 39

InvivoGen Hong Kong, Unit 709A, Bio-Informatics Center  
2 Science Park West Avenue, Hong Kong Science Park  
Shatin, Hong Kong  
+852 3622 3480

**1.4 Emergency telephone number:** ORFILA (INRS): +33 (0)1 45 42 59 59

## **Section 2 – Hazards Identification**

### **2.1 Classification of substance**

Skin irritation (Category 2), H315  
Specific target organ toxicity - single exposure (Category 3), H335

### **2.2 Label elements**

Pictogram



Signal word: Warning

Hazard statement  
H315: Causes skin irritation.  
H335: May cause respiratory irritation.

Precautionary statements  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

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|             |   |
|-------------|---|
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water.   |
| P304 + P341 | IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P312        | Call a POISON CENTER or doctor/physician if you feel unwell.  |
| P501        | Dispose of contents/container to an approved waste disposal plant.  |

### 2.3 Other hazards - none

## Section 3 – Composition/Information on Ingredient

### 3.1 Substances

Synonyms: 2'3'-c-di-AMP sodium salt; 2',5'-3',5'-c-diAMP; cyclic (adenosine-(2'→5')-monophosphate-adenosine-(3'→5')-monophosphate); c[A(2',5')pA(3',5')p]

Formula: C<sub>20</sub>H<sub>22</sub>N<sub>10</sub>O<sub>12</sub>P<sub>2</sub> · 2Na

Molecular weight: 702.38 g/mol

CAS number: 1638241-77-6

## Section 4 – First Aid Measures

### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled:** If breathed in, remove to fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash skin with soap and plenty of water. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 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

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

## Section 5 – Fire Fighting Measures

### 5.1 Extinguishing media

**Suitable extinguishing media:** Use water spray, carbon dioxide, dry chemical powder or appropriate foam.

### 5.2 Specific hazards arising from the chemical

No data available

### 5.3 Special Firefighting Procedures

Wear self-contained breathing apparatus for fire fighting if necessary.

## Section 6 – Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

For personal protection see section 8.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

**6.4 Reference to other sections**

For disposal see section 13.

**Section 7 – Handling and Storage****7.1 Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed.  
For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.  
Recommended storage temperature: -20 °C.

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**Section 8 – Exposure Controls/PPE****8.1 Control parameters****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**8.2 Exposure controls****Appropriate engineering controls**

General industrial hygiene practice.

**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).

**Body Protection**

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

**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.

**Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Do not let product enter drains.

## **Section 9 – Physical/Chemical Properties**

### **9.1 Information on basic physical and chemical properties**

#### **Appearance**

Physical state: Solid

Color: White

#### **Safety Data**

Odor: No data available

Odor threshold: No data available

pH: 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: No data available

Upper/lower flammability or explosive limits: No data available

Vapor pressure: No data available

Relative density: No data available

Solubility in water: 50 mg/ml

Partition coefficient: n-octanol/water: No data available

Autoignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

### **9.2 Other safety information**

no data available

## **Section 10 – Stability and Reactivity**

**10.1 Reactivity:** No data available

**10.2 Chemical stability:** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions:** No data available

**10.4 Conditions to avoid:** No data available

**10.5 Incompatible materials:** No data available

**10.6 Hazardous decomposition products:** No data available

## **Section 11 – Toxicological Information**

### **11.1 Information on toxicological effects**

#### **Acute toxicity:**

Oral LD50: No data available

Inhalation LC50: No data available

Dermal LD50: No data available

Other information on acute toxicity: No data available

**Skin corrosion/irritation:** No data available

**Serious eye damage/irritation:** No data available

**Respiratory or skin sensitization:** No data available

**Germ cell mutagenicity:** No data available

**Carcinogenicity:** No data available

**Reproductive toxicity:** No data available

**Additional information:** 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:** PBT/vPvB assessment not available as chemical safety assessment not required or not conducted.

**12.6 Other adverse effects:** No data available

## Section 13 – Disposal Considerations

### **13.1 Waste treatment methods**

**Product:** Observe all federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Must not be disposed of together with household garbage.

**Contaminated Packaging:** Dispose of as unused product.

## Section 14 – Transport Information

### **14.1 UN number**

ADR/RID: - DOT (US): - IMDG: - IATA: -

### **14.2 UN proper shipping name**

not dangerous goods

### **14.3 Transport hazard class(es)**

ADR/RID: - DOT (US): - IMDG: - IATA: -

### **14.4 Packaging group**

ADR/RID: - DOT (US): - IMDG: - IATA: -

### **14.5 Environmental hazards**

ADR/RID: no DOT (US): no IMDG Marine pollutant: no IATA: no

### **14.6 Special precautions for user**

no data available

### **14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

## Section 15 – Regulatory Information

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

no data available

### **15.2 Chemical Safety Assessment**

no data available

## Section 16 – Other Information

The information contained in this SDS relates only to the material(s) designated and does not relate to use(s) in combination with any other material, process(es) and/or chemical reaction(s). InvivoGen provides this information in good faith and is based on our present knowledge. This SDS is provided without warranty of any kind. The recipient is responsible for ensuring that, where applicable, existing laws and guidelines are observed.