Material Safety Data Sheet (MSDS)

| Revision Number: 1.0 | | Last updated Sept 10 2012 |
|----------------------------|-----------------|---|
| 1. Product and Company Ide | ntification | |
| Product Name: | Mant - GTP | [2' - /3' - O - (N' - Methylanthraniloyl)guanosine - 5' - O - |
| | triphosphate | e, trisodium salt], 5mM in TE buffer(pH7.6) |
| Manufacturer/Supplier: | AnaSpec, Ir | nc. |
| | www.anaspec.com | |
| | 34801 Cam | pus Drive |
| | Fremont, Ca | A 94555 |
| | Tel: 510-79 | 1-9560 |
| | Fax: 510-79 | 1-9572 |
| | Email: servi | ce@anaspec.com |
| Catalog Number | 64609 | |
| Unit Size | 500μL | |

2. Hazards Identification

Emergency Overview:

Try to avoid contact and inhalation. To our knowledge the hazards of this material have not been thoroughly investigated. We recommend handling all chemicals with caution. Use proper protective equipment when handling chemicals.

Not dangerous substance according to GHS

No known OSHA hazards

GHS Hazard Classification:

GHS Physical Hazards: None

GHS Health and Environmental Hazards: None

GHS Signal Words: None

GHS Hazard Statements: H313-H315-H319-H335 May be harmful if swallowed or in direct contact with skin.

GHS Precautionary Statements: P302+P352+P304+P340+P305+P332 Material may cause skin irritation with susceptible persons.

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 / Information on Ingredients

Ingredients/Components:

Chemical Name: Mant - GTP [2' - /3' - O - (N' - Methylanthraniloyl)guanosine - 5' - O -

triphosphate, trisodium salt], 5mM in TE buffer(pH7.6)

Molecular Formula: $C_{18}H_{20}N_6Na_3O_{15}P_3$

Molecular Weight: 722.28

4. First Aid Measures

| Inhalation: | Avoid direct inhalation or prolonged exposure. Move to fresh air | |
|-------------|--|--|
| Ingestion: | May be harmful if ingested. If swallowed, wash out mouth with water provided person is conscious. Call a | |
| | physician and seek medical advice. | |
| Skin: | May cause skin irritation with susceptible persons. May be harmful if absorbed through skin. In case of contact, | |
| | immediately wash skin with soap and copious amount of water. | |
| Eyes: | May cause irritation. In case of contact, immediately flush eyes with copious amounts of water for at 15 | |
| | minutes. Call a physician and seek medical advice. | |
| | | |

5. Fire Fighting Measures

| Extinguishing media: | Water spray or fog |
|--------------------------------------|--|
| | Foam |
| | Dry chemical powder |
| | BCF(where regulation permit) |
| | Carbon 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 |
| | 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 explosions hazards: | Data not available |
| | |

6. Accidental Release Measures

| Spill response | Use personal protective equipment. Soak up with inert absorbent material if spilt. |
|----------------|--|
| | |
| Containment | Soak up with inert absorbent material if spilt. |
| PPE | Use personal protective equipment |

7. Handling and Storage

Keep in properly labeled containers. Always wear recommended personal protective equipment.

Keep containers tightly closed in a dry and well-ventilated place. Containers that are opened must be carefully resealed and kept upright. Store in -20°C refrigerator with desiccant away from light.

| _ | _ | | | |
|-----|----------|----------|------------|-------------------|
| 18. | Exposure | Controls | / Personal | Protection |

| Engineering controls | Use personal protective equipment |
|----------------------|--|
| PPE | Use personal protective equipment. Soak up with inert absorbent material if spilt. |

9. Physical and Chemical Properties

| Physical State | liquid |
|---------------------|---------------------------|
| Odor | No information available. |
| Solubility in Water | No information available. |
| Specific Gravity | No data available. |
| PH | No data available. |
| Boiling Point | No data available. |
| Melting Point | No data available. |
| Flash Point | N/A |
| Vapor Pressure: | N/A |
| Vapor Density: | N/A |

10. Stability and Reactivity

| Thermal Decomposition | No data available. |
|-------------------------------------|----------------------|
| Dangerous Products of Decomposition | No data available. |
| Dangerous Reactions | COx, NOx when burned |

11. Toxicological Information

| RTECS Number | N/A |
|---|---------------------------|
| Toxicity | No information available. |
| Health Hazards | No information available. |
| Potential Hazards | No information available. |
| Carcinogenicity: | No information available. |
| OSHA Permissible Exposure Limit(PEL) Data | N/A |
| ACGIH Threshold Limit Values (TLV) | N/A |
| Reproductive Toxicity | No information available. |

12. Ecological Information

No information available. Inherently biodegradable.

13. Disposal Considerations

Prevent product from entering drains. Dispose of in accordance with local regulation. We recommend incineration of unused product.

14. Transport Information

| UN Number | N/A |
|--------------|-----|
| Hazard Class | N/A |

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

15. Regulatory Information

United States:

California Proposition 65: This product does not contain chemicals listed under Propostion 65.

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 Clean Air Act:

Listed under Hazardous Air Pollutants: Not listed Listed under Class 1 Ozone Depletors: Not listed Listed under Class 2 Ozone Depletors: Not listed

US Clean Water Act:

Listed under "Hazardous Substances": Not listed Listed under "Priority Pollutants": Not listed Listed under "Toxic Pollutants": Not listed

European/International Regulations:

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

WGK (Water Danger / Protection): N/A

Canada – DSL/NDSL: Not listed

Canada – WHMIS classification: N/A

Canada - Canadian Ingredient Disclosure List: Not listed

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.