

## MATERIAL SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: **5'-O-DMTr-2'-deoxycytidine (N-Bz)**  
CAS No 67219-55-0  
Catalog **CGDDB-1102**  
Synonym/Trade Name: N4-Benzoyl-2'-deoxy-5'-O-DMT-cytidine, N-Benzoyl-5'-O-[bis (4-methoxyphenyl)phenylmethyl]-2'-deoxycytidine;N-Benzoyl-5'-O-(4,4'-dimethoxytrityl)-2'-deoxycytidine;N4-Benzoyl -2'-deoxy-5'-O-DMT-D-cytidine;N4-Benzoyl-5'-O-DMT-2'-deoxycytidine

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### SECTION: 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Physical Hazards  
not classified

Health Hazards  
sensitisation (Category 1B)  
Eye damage (Category 1), H318

Environmental Hazards  
Acute aquatic toxicity (Category 1), H400  
Hazardous to the aquatic environment, long-term hazard (Category 1)

Label elements  
Regulatory List  
EC1272/08 Regulation (EC) 1272/2008 (GHS/CLP)  
Symbol  
GHS07 exclamation mark  
Pictogram



GHS09 environmental hazards  
Pictogram



Signal Word

Warning                      Warning

Hazard Statement

H317                      May cause an allergic skin reaction.  
H319                      Causes serious eye irritation.  
H400                      Very toxic to aquatic life.  
H410                      Very toxic to aquatic life with long lasting effects.

Precautionary Statement

P273                      Avoid release to the environment.  
P280                      Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Remove contact lenses, if possible.  
P337+P313              If eye irritation persists: Get medical advice/attention. P391 Collect spillage.  
P501                      Dispose of contents / container in accordance with local / regional / national / international regulations.

Other hazards

Caution! To the best of our knowledge the toxicological properties of this material have not been thoroughly investigated.

**SECTION:3**

**COMPOSITION/INFORMATION ON INGREDIENTS  
SUBSTANCE RELATED INFORMATION**

Substance name      N4-Benzoyl-2'-deoxy-5'-O-DMT-cytidine  
Synonyms              N-Benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxycytidine;N-Benzoyl-5'-O-(4,4'-dimethoxytrityl)-2'-deoxycytidine;N4-Benzoyl -2'-deoxy-5'-O-DMT-D-cytidine;N4-Benzoyl-5'-O-DMT-2'-deoxycytidine  
Cas No.                [67219-55-0]  
Formula                C37H35N3O7

**SECTION:4**

**FIRST AID MEASURES**

4.1      Description of first aid measures

First Aid: Eye

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

First Aid: Skin

Wash immediately with plenty of water and soap for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothes before reuse. Call a physician.

First Aid: Ingestion

Wash out mouth with water provided person is conscious. Call a physician.

Most important symptoms and effects, both acute and delayed Hints for Physician:

Symptoms

See Section 11 for additional information on health hazards

Indication of any immediate medical attention and special treatment needed

First Aid: Inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Hints for Physician: Treatment

Treat symptomatically.

#### **SECTION:5 FIREFIGHTING MEASURES**

Extinguishing Media

Suitable

foam, dry extinguishing powder, carbon dioxide (CO<sub>2</sub>), water spray jet

Special hazards arising from the substance or mixture

Wear a self-contained breathing apparatus and chemical protective clothing.

Hazards During Fire-Fighting

toxic fumes

Fire-Fighting/Further Advice

Do not inhale explosion and combustion gases. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

#### **SECTION:6 ACCIDENTAL RELEASE MEASURES**

Personal Precautions, protective equipment and emergency procedures

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Provide adequate ventilation.

Environmental Precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure all waste water is collected and treated via a waste water treatment plant.

Methods and material for containment and cleaning up  
not available

Further Accidental Release Measures

Collect in closed and suitable containers for disposal. Clear contaminated areas thoroughly. Ventilate affected area.

#### **SECTION:7 HANDLING AND STORAGE**

Precautions for safe handling

Handling advice

Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid prolonged or repeated exposure. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage temperature

store at 2°C - 8°C

Storage condition

close container well

Storage Requirements

Keep away from incompatible substances. Keep container tightly closed when not in use.

Store in a cool, dry, well-ventilated area away from incompatible substances.

Specific end use(s)

### **SECTION:8 EXPOSURE CONTROLES/PERSONAL PROTECTION**

Exposure limit values

Does not contain any substances with occupational exposure limits.

Exposure controles Industrial Hygiene

Mechanical exhaust required. Safety shower and eye shower.

Personal Protective Equipment Respiratory Protection

Wear NIOSH/MSHA or European Standard EN 149 approved respirators.

Hand Protection

Wear compatible chemical-resistant gloves to prevent skin exposure.

Eye Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA.

Body Protection

Wear compatible chemical-resistant gloves and clothing to prevent skin exposure.

Advice on Safe Handling

Wash contaminated clothing before reuse. Wear appropriate protective clothing to prevent exposure.

### **SECTION:9 PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic Physical and chemical color properties

Color

white, off-white

Form

powder

Density

1,26 g/cm<sup>3</sup>

Other information  
Molar Mass  
633.69 g/mol

**SECTION:10 STABILITY AND REACTIVITY**

Reactivity  
No Data Available

Chemical stability  
No Data Available

Possibility of hazardous reaction  
No Data Available

Conditions to Avoid (SDS)  
incompatible materials

Incompatible materials  
strong oxidizers

Hazardous decomposition products  
nitrogen oxides (NO<sub>x</sub>), carbon dioxide (CO<sub>2</sub>), carbon monoxide

**SECTION:11 TOXICOLOGICAL INFORMATION**

Information on toxicological effects  
Other Relevant Toxicity Information  
We are not aware of any toxicology data.

**SECTION:12 ECOLOGICAL INFORMATION**

Toxicity

|                                                                       | Test Type         | Species           | Method            | Exposure Time     | Value in standard unit mg/l |
|-----------------------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-----------------------------|
| <b>Acute toxicity versus Fishing</b>                                  | No data available | No data available | No data available | No data available | No data available           |
|                                                                       | Test Type         | Species           | Method            | Exposure Time     | Value in standard unit mg/l |
| <b>Acute toxicity in aquatic plants</b>                               | No data available | No data available | No data available | No data available | No data available           |
|                                                                       | Test Type         | Species           | Method            | Exposure Time     | Value in standard unit mg/l |
| <b>Acute toxicity versus Daphnia and others aquatic invertebrates</b> | No data available | No data available | No data available | No data available | No data available           |
|                                                                       | Test Type         | Species           | Method            | Exposure Time     | Value in standard unit mg/l |

Persistence and degradability  
Remarks : no data available

Bio accumulative potential  
Remarks : no data available

Mobility in soil  
no data available

Results of PBT and vPvB assessment  
no data available

Other adverse effects  
Memo : Very toxic to aquatic life.

### SECTION:13 DISPOSAL CONSIDERATIONS

Advice on Disposal and Packaging

Advice on Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and Exhaust air. Dispose of waste according to laws applicable.

Advice on Packaging  
not available

### SECTION:14 TRANSPORT INFORMATION

|                                                                         | Road Transport(ADR/GGVS)                                                                   | Air Transport(IATA)                                                                        |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 14.1 UN number                                                          | 3077                                                                                       | 3077                                                                                       |
| 14.2 UN proper shipping name                                            | Environmentally hazardous substance, solid, n.o.s.( N4-Benzoyl-2'-deoxy-5'-O-DMT-cytidine) | Environmentally hazardous substance, solid, n.o.s.( N4-Benzoyl-2'-deoxy-5'-O-DMT-cytidine) |
| 14.3 Transport hazard class(es)                                         | 9                                                                                          | 9                                                                                          |
| 14.4 Packing group                                                      | III                                                                                        | III                                                                                        |
| 14.5 Environmental hazard class(es)                                     | Hazards identified                                                                         | Hazards identified                                                                         |
| 14.6 Special precautions for user                                       | Not applicable                                                                             | Not applicable                                                                             |
| 14.7 Transport in bulk according to Annex 11 of MARPOL and the IBC code | Not applicable                                                                             | Not applicable                                                                             |

### SECTION:15 OTHER REGULATIONS

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

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

Toxins

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

None of the ingredients are listed or exempt.

Rhode Island "Right To Know" List

None of the ingredients are listed or exempt.

Minnesota "Right To Know" List

None of the ingredients are listed or exempt.

New Jersey "Right To Know" List

None of the ingredients are listed or exempt.

Pennsylvania "Right To Know" List

None of the ingredients are listed or exempt.

not available

|                                       |                                                                     |                                                                               |                                                                                                       |
|---------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Component                             | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
| N4-Benzoyl-2'-deoxy-5'-O-DMT-cytidine | -----                                                               | -----                                                                         | -----                                                                                                 |

15.2 Chemical safety assessment  
No chemical safety assessment has been carried out.

**SECTION 16. OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. ChemGenes (I) Pvt. Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

-----End of MSDS-----