

### Revision number: 2 Revision date: 10/06/2014

# 1. IDENTIFICATION

Product name: Product code:  $N^4$ -Benzoyl-5'-O-(4,4'-dimethoxytrityl)-2'-deoxycytidine B3087

**TCI AMERICA** 

SAFETY DATA SHEET

Product use: Restrictions on use:

### Company:

TCI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

# 2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200:

Signal word:

Warning! Suspected of causing cancer

Carcinogenicity [Category 2]

Hazard Statement(s):

Pictogram(s) or Symbol(s):



### Precautionary Statement(s): [Prevention]

[Response] [Storage] [Disposal] Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection and face protection. If exposed or concerned: Get medical advice or attention. Store locked up. Dispose of contents and container in accordance with US EPA guidelines for the classification and determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Components: Percent: CAS Number: Molecular Weight: Chemical Formula: Synonyms: Substance N<sup>4</sup>-Benzoyl-5'-O-(4,4'-dimethoxytrityl)-2'-deoxycytidine >99.0%(HPLC) 67219-55-0 633.70 C<sub>37</sub>H<sub>35</sub>N<sub>3</sub>O<sub>7</sub> Bz-DMT-dC

## 4. FIRST-AID MEASURES

For laboratory research purposes. Not for drug or household use.

#### Emergency telephone number: Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-286-7624 Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.) +1-703-527-3887 (International) Responsible department: TCI America Environmental Health Safety and Security +1- 503-286-7624

4. FIRST-AID MEASURES Inhalation:	Call a paisan contar or destar if you feel unwell. Effects of experience (inhelation) to substance may be
Skin contact:	Call a poison center or doctor if you feel unwell. Effects of exposure (inhalation) to substance may be delayed. Inhalation of vapors or contact with substance will result in contamination and potential harmful effects. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Call a poison center or doctor if you feel unwell. Effects of exposure (skin contact) to substance may be delayed. Remove and wash contaminated clothing before re-use. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Eye contact:	In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists get medical advice/attention. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Ingestion:	Effects of exposure (ingestion) to substance may be delayed. If swallowed, seek medical advice immediately and show the container or label. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Symptoms/effects:	
Acute: Delayed:	No data available Possibly carcinogenic to humans.
Immediate medical attention:	CAUTION: Victim may be a source of contamination. If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
5. FIRE-FIGHTING MEASURES	
Suitable extinguishing media:	Dry chemical, CO <sub>2</sub> , water spray, or alcohol-resistant foam. Consult with local fire authorities before attempting large scale fire fighting operations.
Specific hazards arising from the che Hazardous combustion products: Other specific hazards:	mical These products include: Carbon oxides Nitrogen oxides Closed containers may explode from heat of a fire.
heated. Move containers from fire area in Special protective equipment for fire-t Wear positive pressure self-contained by	
6. ACCIDENTAL RELEASE MEAS	URES
Personal precautions:	Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation.
Personal protective equipment:	Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Splash goggles. Wear protective clothing (chemical resistant suit and chemical resistant boots). Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves
Emergency procedures:	(nitrile). Prevent dust cloud. Do not clean-up or dispose except under supervision of a specialist. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn

### Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material. **Environmental precautions:** 

touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.

Keep away from living quarters. Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

## 7. HANDLING AND STORAGE

7. HANDLING AND STORAGE	
Precautions for safe handling:	Avoid inhalation of vapor or mist. Manipulate under an adequate fume hood. Avoid exposure - obtain special instructions before use. Avoid prolonged or repeated exposure. Avoid contact with skin and eyes. Normal measures for preventive fire protection. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition.
Conditions for safe storage:	Store locked up. Keep containers tightly closed in a cool, well-ventilated place. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Store under inert gas (e.g. Argon). Hygroscopic material, store in a tightly sealed container.
Storage incompatibilities:	Store away from oxidizing agents

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### **Exposure limits:**

No data available

### Appropriate engineering controls:

Handle only in a fully enclosed system and equipment. Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

### Personal protective equipment

Respiratory protection:	Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.
Hand protection:	Wear protective gloves.
Eye protection:	Safety glasses.
Skin and body protection:	Wear protective clothing (chemical resistant suit and chemical resistant boots).

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Form: Color: Odor: Odor threshold:	Solid Crystal - Powder White - Almost white No data available No data available			
Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic Viscosity:	119°C (246°F) No data available No data available No data available No data available	pH: Vapor pressure: Vapor density: Dynamic Viscosity	:	No data available No data available No data available No data available
Partition coefficient: n-octanol/water (log P <sub>ow</sub> )	No data available	Evaporation rate: (Butyl Acetate = 1)		No data available
Flash point: Flammability (solid, gas):	No data available No data available	Autoignition tempe Flammability or ex∣ Lower: Upper:		

#### Solubility(ies):

# 10. STABILITY AND REACTIVITY

Reactivity: Chemical Stability: Possibility of Hazardous Reactions: Conditions to avoid: Incompatible materials: Hazardous Decomposition Products: Not Available. Moisture sensitive. Light sensitive. No hazardous reactivity has been reported. Exposure to light. Exposure to moisture. Moisture sensitive. Strong oxidizing agents No data available

# **11. TOXICOLOGICAL INFORMATION**

deoxycytidine					
Acute Toxicity: No data available					
<b>Skin corrosion/irritation:</b> 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					
IARC: No data available	NTP:	No data available	OSHA:	No data available	
Reproductive toxicity: No data available					
Routes of Exposure: Symptoms related to exposure: No specific information is available in our of be kept to a minimum. Always follow safe Potential Health Effects: No specific information available; skin and Target organ(s):	data base regarding th industrial hygiene pra	ctices and wear proper prote	al for humans. Howeve ective equipment when	handling this compound.	should
12. ECOLOGICAL INFORMATION					]
Ecotoxicity					
Fish:	No data available				
Crustacea: Algae:	No data available No data available				
Persistence and degradability: Bioaccumulative potential (BCF): Mobillity in soil: Partition coefficient: n-octanol/water (log Pow) Soil adsorption (Koc): Henry's Law: constant (PaM <sup>3</sup> /mol)	No data available No data available No data available No data available No data available No data available				
13. DISPOSAL CONSIDERATIONS Disposal of product:	rules and regulatic chemical incinerat assistance but doo regulatory complia Waste are listed ir water ways, or the	ons. You may be able to diss for equipped with an afterbur es not replace these laws, no ance according to the law. Us a 40 CFR Parts 261. The pro a soil.	olve or mix material wit ner and scrubber syste or does compliance in a S EPA guidelines for Id duct should not be allo	mply with Federal, State and h a combustible solvent and m. This section is intended t accordance with this section entification and Listing of Ha wed to enter the environment	l burn in a to provide ensure azardous
Disposal of container: Other considerations:		sed product. Do not re-use e al, state and local regulations		substance.	
14. TRANSPORT INFORMATION					
DOT (US)	Non-hazardous fo	r transportation.			
ΙΑΤΑ	Non-hazardous fo	r transportation.			
IMDG	Non-hazardous fo	r transportation.			

**TCI AMERICA** 

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# 15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.): This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

CERCLA Hazardo	us substance ar	nd Reportable Quantity:				
SARA 313:		Not Listed				
SARA 302:		Not Listed				
State Regulations	<u>.                                    </u>					
State Right-to-Kno	w					
Massachusetts New Jersey Pennsylvania California Proposition 65:		Not Listed				
		Not Listed				
		Not Listed				
		Not Listed				
Other Information						
NFPA Rating:		HMIS Classification:				
Health:	2	Health:	2			
Flammability:	0	Flammability:	0			
Instability:	0	Physical:	2			
International Inve	ntories					
WHMIS hazard class:		D2B: Materials causing other toxic effects. (Toxic)				
EC-No:		266-605-9				

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TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.