

SAFETY DATA SHEET

Order
NumberCustomer
Number

1. Identification of the substance/preparation and of the company/undertaking

Product name : Paclitaxel, *Taxus* sp.**Catalog #** : 580555**Supplier** : Manufactured by EMD Biosciences, Inc.
10394 Pacific Center Court
San Diego, CA 92121
(858)450-5558/(800)854-3417
FAX: (858)453-3552**Chemical formula** : C₄₇H₅₁NO₁₄**Synonym** : Baccatin III N-Benzyl-beta-phenylisoserine Ester**Emergency telephone number** : Call Chemtrec®
(800)424-9300 (within U.S.A.)
(703)527-3887 (outside U.S.A.)

2. Composition / information on ingredients

Substance/Preparation : Substance

Chemical name*	CAS No.	EC Number	Symbol	R-Phrases
1) Baccatin III N-Benzyl-beta-phenylisoserine Ester	33069-62-4	Not available.	T	R37/38, R41, R46, R60

3. Hazards identification

Physical/chemical hazards : Not applicable.**Human health hazards** : WARNING!
BIRTH DEFECT HAZARD.
CAN CAUSE BIRTH DEFECTS.
CAUSES EYE IRRITATION.
MAY CAUSE RESPIRATORY TRACT AND SKIN IRRITATION.
MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: REPRODUCTIVE SYSTEM,
EYES.

4. First-aid measures

First-Aid measures

- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin Contact** : In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
- Eye Contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Effects and symptoms

- Inhalation** : Hazardous in case of inhalation (lung irritant).
- Skin Contact** : Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
- Eye Contact** : Very hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.

Aggravating conditions : Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

5. Fire-fighting measures

Flammability of the Product	: May be combustible at high temperature.
Extinguishing Media	
Suitable	: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Hazardous thermal (de)composition products	: These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).
Special fire-fighting procedures	: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Protection of fire-fighters	: Be sure to use an approved/certified respirator or equivalent.

6. Accidental release measures

Personal precautions	: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Small Spill and Leak	: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill and Leak	: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system

7. Handling and storage


Handling	: Keep locked up. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. Avoid contact with skin. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible.
Storage	: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above -20°C (-4°F).
Packaging materials	
Recommended use	: Use original container.

8. Exposure controls/personal protection

Engineering measures	: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Hygiene measures	: Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Ingredient Name	Occupational Exposure Limits
1) Paclitaxel, <i>Taxus</i> sp.	Not available.

Personal protective equipment

Respiratory system	: Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
Skin and body	: Lab coat.
Hands	: Gloves.
Eyes	: Splash goggles.
Protective Clothing (Pictograms)	: 

9. Physical and chemical properties

Physical state	: Solid. (Solid powder.)
Color	: White.
Molecular Weight	: 853.9 g/mole
Melting Point	: 213 to 216°C (415.4 to 420.8°F)
Solubility	: Easily soluble in methanol.
Flash point	: Not available.
Explosive properties	: Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

10. Stability and reactivity

Stability	: The product is stable.
Conditions to avoid	: Sensitive to light.
Hazardous Decomposition Products	: These products are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ ...).

11. Toxicological information

<u>RTECS #</u>	: DA8340700
<u>Local effects</u>	
Skin irritation	: Hazardous in case of skin contact (irritant).
Acute toxicity	: LD50: Not available. LC50: Not available.
Chronic toxicity	: Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
Other Toxic Effects on Humans	: Not available. Hazardous in case of skin contact (irritant), of inhalation (lung irritant). May cause congenital malformations in the foetus. Laboratory experiments have shown mutagenic effects. Will cause serious damage to the eyes. Material is irritating to mucous membranes and upper respiratory tract.
<u>Specific effects</u>	
Carcinogenic effects	: Not available.
Mutagenic effects	: Classified POSSIBLE for human.
Reproduction toxicity	: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN].
Teratogenic effects	: Classified POSSIBLE for human.

12. Ecological information

Ecotoxicity	: Not available.
Toxicity of the Products of Biodegradation	: The product itself and its products of degradation are not toxic.


13. Disposal considerations

Methods of disposal; Waste of residues; Contaminated packaging	: Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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14. Transport information

<u>International transport regulations</u>	
<u>Land - Road/Railway</u>	
ADR/RID Class	: Not controlled under ADR (Europe).
<u>Sea</u>	
IMDG Class	: Not controlled under IMDG.
<u>Air</u>	
IATA-DGR Class	: Not controlled under IATA.
Special Provisions for Transport	: Not applicable.

15. Regulatory information

<u>EU Regulations</u>	
Hazard symbol(s)	: 
Classification	: Toxic

- Risk Phrases** : R37/38- Irritating to respiratory system and skin.
R41- Risk of serious damage to eyes.
R46- May cause heritable genetic damage.
R60- May impair fertility.
- Safety Phrases** : S22- Do not breathe dust.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- Contains** : - Paclitaxel, *Taxus* sp.
- U.S. Federal Regulations** : TSCA: No products were found.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: No products were found.
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.
SARA 313 toxic chemical notification and release reporting: No products were found.
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 accidental release prevention: No products were found.
Clean air act (CAA) 112 regulated flammable substances: No products were found.
Clean air act (CAA) 112 regulated toxic substances: No products were found.
- HCS Classification** : CLASS: Irritating substance.
CLASS: Target organ effects.
- State Regulations** : California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: Paclitaxel, *Taxus* sp.
California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (male) which would require a warning under the statute: Paclitaxel, *Taxus* sp.
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Paclitaxel/*Taxus* sp.
- WHMIS (Canada)** : CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
No products were found.

16. Other information

Hazardous Material Information System (U.S.A.)

Health	* 2
Fire Hazard	1
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.)



Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its 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 materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Date of issue

Catalog # 580555

3/26/2003.

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