

Conforms to 93/112/EC and ISO 11014-1

Responsible Name Fred Gartner

## ? Section 1. Chemical Product and Company Identification

**Product name** BS3-d4; Bis(Sulfosuccinimidyl)2,2,7,7 suberate-d4

**Product No.** 0021595 1901483

<b>Supplier</b>	<b>In USA:</b> Pierce P.O. Box 117 Rockford, IL 61105 USA 815.968.0747 or 1.800.874.3723	<b>In Europe:</b> Perbio Science Industriezone III Industrielaan 27 9320 Erembodegem-Aalst Belgium Tel:+32 53 83 44 04 Fax:+32 53 83 76 38	<b>Manufacturer</b>	Pierce Biotechnology P.O. Box 117 Rockford, IL 61105 USA 815.968.0747 or 1.800.874.3723
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**In Case of Emergency** CHEMTREC:  
800.424.9300  
OUTSIDE US:  
202.483.7616

**Print Date** 5/12/2005  
**Validation Date** 5/4/2005  
**MSDS#** 7271

**Intended Use** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

**Chemical name** Bis(Sulfosuccinimidyl) 2,2,7,7 suberate-d4

## Section 2. Composition, Information on Ingredients

**Substance/Preparation** : Substance

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>EC number</u>	<u>Classification</u>
BS3-d4; Bis(Sulfosuccinimidyl)2,2,7,7 suberate-d4		98 - 100		Xi; R36/37

## Section 3. Hazards Identification

**United States** Review the most current and approved institutional guideline, protocol, standard operating procedure(s) and MSDS(s) for the proper handling of institutional materials/equipment associated with the use of this product.

**Emergency Overview** Warning!  
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.  
MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, EYES.  
Avoid contact with skin and clothing. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

**Target organs** May cause damage to the following organs: upper respiratory tract, eyes.

**Routes of Entry** Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

**Eyes** Irritating to eyes.

**Skin** Irritating to skin.

**Inhalation** Irritating to respiratory system.

**Ingestion** No known significant effects or critical hazards.

### Potential chronic health effects

#### Carcinogenic Effects Data

**CARCINOGENIC EFFECTS:** Not available.

**MUTAGENIC EFFECTS:** Not available.

**TERATOGENIC EFFECTS:** Not available.

**Medical Conditions Aggravated by Overexposure:** Repeated or prolonged exposure is not known to aggravate medical condition.

**Overexposure /Signs/Symptoms** Not available.

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**Europe**

**Classification** Xi; R36/37

*Physical/chemical hazards* Not applicable.

*Human health hazards* Irritating to eyes and respiratory system.

*Environmental hazards* Not applicable.

See Toxicological Information (section 11)

## **+ Section 4. First Aid Measures**

### **Effects and symptoms**

*Inhalation* Hazardous in case of inhalation (lung irritant).

*Ingestion* Not available.

*Skin Contact* Not available.

*Eye Contact* Hazardous in case of eye contact (irritant).

*Aggravating conditions* Repeated or prolonged exposure is not known to aggravate medical condition.

### **First-Aid Measures**

*Inhalation* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

*Ingestion* Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

*Skin Contact* In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

*Eye Contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

*Notes to Physician* Not available.

*Protection of first-aiders* Not available.

## **Section 5. Fire Fighting Measures**

*Flammability of the Product* Non-flammable.

*Flash Points* Not applicable.

*Fire Hazards in Presence of Various  
Substances* Not applicable.

*Fire Fighting Media  
and Instructions* Use an extinguishing agent suitable for surrounding fires.

*Protective Clothing (Fire)* Not applicable.

*Hazardous thermal (de)composition  
products* Not applicable.

## **Section 6. Accidental Release Measures**

*Personal precautions* Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

*Environmental Precautions and  
Clean-up Methods* Use a shovel to put the material into a convenient waste disposal container.

*Small Spill and Leak* Use appropriate tools to put the spilled solid in a convenient waste disposal container.

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## **◇ Section 7. Handling and Storage**

**Handling** Avoid contact with eyes. Keep container closed. Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling.

**Storage** Keep container tightly closed. Keep container refrigerated and dry, and in the presence of a desiccant.

**Intended Use** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

**Packaging materials**

**Suitable / Not suitable** Use original container.

## **Section 8. Exposure Controls/Personal Protection**

**Engineering Controls** 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.

### **Exposure Limit Values**

#### **Ingredient Name**

#### **Occupational Exposure Limits**

**United States**

### **Personal Protection**

**Eyes** Splash goggles.

**Body** Lab coat.

**Hands** Gloves.

**Respiratory** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

Protective Clothing  
(Pictograms)



## **🧪 Section 9. Physical and Chemical Properties**

**Physical State and Appearance** Solid.

**Color** Off-white.

**Odor** Odorless.

**Molecular Weight** 576.45 g/mole

**Taste** Not available.

**Molecular Formula** C16 O14 S2 H14 D4 N2 Na2

**Dispersion Properties** See solubility in water.

**Solubility** Partially soluble in cold water, hot water.

## **🧪 Section 10. Stability and Reactivity**

**Stability and Reactivity** The product is stable.

**Conditions to avoid** moisture

**Materials to avoid** Incompatible with amines.

**Hazardous Polymerization** Will not occur.

**Hazardous Decomposition Products** Not available.

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 **Section 11. Toxicological Information**

**Toxicity to Animals** Bis(Sulfosuccinimidyl) 2,2,7,7 suberate-d4  
LD50: Not available.  
LC50: Not available.

**Chronic Effects on Humans** May cause damage to the following organs: upper respiratory tract, eyes.

**Other Toxic Effects on Humans** Hazardous in case of eye contact (irritant), of inhalation (lung irritant).

**Special Remarks on Toxicity to Animals** Not available.

**Special Remarks on Chronic Effects on Humans** Not available.

**Special Remarks on Other Toxic Effects on Humans** Not available.

**Carcinogenicity** No known significant effects or critical hazards.

**Mutagenicity** No known significant effects or critical hazards.

**Reproductive toxicity** No known significant effects or critical hazards.

Over-exposure  
signs/symptoms

**Inhalation** No known significant effects or critical hazards.

**Ingestion** No known significant effects or critical hazards.

**Skin** No known significant effects or critical hazards.

**Target organs** May cause damage to the following organs: upper respiratory tract, eyes.

 **Section 12. Ecological Information**

**Mobility** Not available.

**Persistence/degradability** Not available.

**Bioaccumulative potential** Not available.

**Ecotoxicity** Not available.

**Germany water class** VCI WGK: No products were found.

Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>
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Other ecological information

<u>Ingredient name</u>	<u>BOD<sub>5</sub></u>	<u>COD</u>
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<u>Ingredient name</u>	<u>Aquatic half-life</u>	<u>Photolysis</u>
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<u>Bioaccumulative potential</u>	<u>LogP<sub>ow</sub></u>	<u>BCF</u>
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**Mobility** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

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## **Section 13. Disposal Considerations**

*Waste Stream* Not available.

*Methods of disposal* The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

*European waste catalogue (EWC)* Not available.

*Hazardous waste* The classification of the product may meet the criteria for a hazardous waste

*Denmark – Carcinogenic waste* Not available.

*Denmark - Waste card number* Not available.

*Denmark - Waste group* Not available.

*Sweden - thermoset plastic waste* Not available.

*Sweden - Waste group* Not available.

*Austria - Waste catalogue* Not available.

*Norway - Waste number* Not available.

*Norway - Hazardous waste* The classification of the product may meet the criteria for a hazardous waste

*Switzerland - Waste code* Not available.

## **Section 14. Transport Information**

Contact the supplier for all information regarding the proper transportation method for this material.



## **Section 15. Regulatory Information**

### **Label Requirements (Europe)**

R36/37- Irritating to eyes and respiratory system.  
S24/25- Avoid contact with skin and eyes. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36- Wear suitable protective clothing.



**Irritant**

**HCS Classification** Irritating material  
Target organ effects

*U.S. Federal Regulations* TSCA: No products were found.

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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.  
 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.

**State regulations** No products were found.

*WHMIS (Canada)* Not controlled under WHMIS (Canada).

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No products were found.

*International Regulations*

*EINECS* Not available.

*DSCL (EEC)* R36/37- Irritating to eyes and respiratory system.

*International Lists* No products were found.

*State Regulations* No products were found.

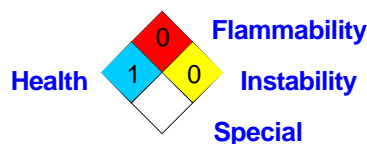
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## Section 16. Other Information

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

Health	*	1
Fire hazard		0
Reactivity		0
Personal protection		C

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



*References* Not available.

*History of Document Changes* Any information changes since last document version are marked with a triangle symbol.

*Full text of R phrases referred to in sections 2 and 3 - Europe* R36/37- Irritating to eyes and respiratory system.

*Full text of classifications referred to in sections 2 and 3 - Europe* Xi - Irritant

*Intended Use* Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

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Verified by Fred Gartner.

Date of Previous Issue No Previous Validation

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**Notice to Reader**

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