

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

Responsible Name Pierce Administration

## ? Section 1. Chemical Product and Company Identification

Product name **NHS-Fluorescein**

Product No. 0046100 0046100I

<b>Supplier</b>	<i>In USA:</i> Pierce P.O. Box 117 Rockford, IL 61105 USA 815.968.0747 or 1.800.874.3723	<i>In Europe:</i> 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
-----------------	--	---	---------------------	--

**In Case of Emergency** CALL CHEMTREC:  
800.424.9300  
OUTSIDE US:  
202.483.7616

**Print Date** 3/6/2003  
**Validation Date** **3/6/2003**  
**MSDS#** 0951

**Synonyms** 5-(and 6)-carboxyfluorescein, succinimidyl ester; 2,5-Pyrrolidinedione

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

## Section 2. Composition, Information on Ingredients

**Substance/Preparation** : Substance

<u>Ingredient Name</u>	<u>CAS No.</u>	<u>%</u>	<u>EC Number</u>	<u>Symbol</u>	<u>R-Phrases</u>
1) NHS-Fluorescein	117548-22-8	98-100	Not available.	Xi	R36

## 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** No specific hazard.  
MAY CAUSE EYE IRRITATION.  
Avoid contact with eyes. Wash thoroughly after handling.

**Routes of Entry** Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

**Potential Acute Health Effects** Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant).

**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.

### Europe

**Classification** **R36**  
**Physical/chemical hazards** Not applicable.  
**Human health hazards** Irritating to eyes.  
**Environmental hazards** Not applicable.

See Toxicological Information (section 11)

**Continued on Next Page**

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

**Notice to Reader** Get immediate medical attention.

**Effects and symptoms**

*Inhalation* Slightly hazardous in case of inhalation (lung irritant).

*Ingestion* Slightly hazardous in case of ingestion.

*Skin Contact* Slightly hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

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

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

**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 if symptoms appear.

*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* Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

*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.

*Notes to Physician* Not available.

*Protection of first-aiders* Not available.

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

*Flammability of the Product* May be combustible at high temperature.

*Flash Points* Not available.

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

*Fire Fighting Media and Instructions* SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

*Protective Clothing (Fire)* Be sure to use an approved/certified respirator or equivalent.

*Hazardous thermal (de)composition products* These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).

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

*Personal precautions* Safety glasses. 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. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

*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.

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

*Handling* Avoid contact with eyes. Wash thoroughly after handling.

*Storage* Keep container tightly closed. Keep container in a cool, well-ventilated area.

*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.

**Continued on Next Page**

## 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

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
<b>United States</b>	
1) NHS-Fluorescein	Not available.
<b>Sweden</b>	
1) NHS-Fluorescein	Not available.
<b>Denmark</b>	
1) NHS-Fluorescein	Not available.
<b>Norway</b>	
1) NHS-Fluorescein	Not available.
<b>France</b>	
1) NHS-Fluorescein	Not available.
<b>Netherlands</b>	
1) NHS-Fluorescein	Not available.
<b>Germany</b>	
1) NHS-Fluorescein	Not available.

### Personal Protection

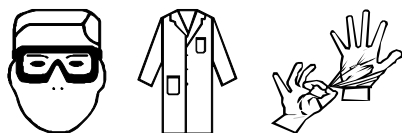
**Eyes** Splash goggles.

**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.

**Odor** Not available.

**Molecular Weight** 473.4 g/mole

**Taste** Not available.

**Molecular Formula** C<sub>25</sub>H<sub>15</sub>NO<sub>9</sub>

**Color** Orange.

**Dispersion Properties** Not available.

**Solubility** Insoluble in cold water, hot water.

Continued on Next Page



## Section 10. Stability and Reactivity

- Stability and Reactivity* The product is stable.
- Conditions to avoid* Not available.
- Materials to avoid* Not available.
- Hazardous Polymerization* Will not occur.
- Hazardous Decomposition Products* These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).



## Section 11. Toxicological Information

- Toxicity to Animals* LD50: Not available.  
LC50: Not available.
- Chronic Effects on Humans* Not available.
- Other Toxic Effects on Humans* Slightly hazardous in case of eye contact (irritant), of ingestion, 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* To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated.



## 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.



## Section 13. Disposal Considerations

- Waste Information* Waste must be disposed of in accordance with federal, state and local environmental control regulations.
- Waste Stream* Not available.

*Consult your local or regional authorities.*



## 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- Irritating to eyes.

S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.



**Irritant**

**HCS Classification** Irritating substance.

**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.

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

No products were found.

**International Regulations**

**EINECS** Not available.

**DSCL (EEC)** R36- Irritating to eyes.

**International Lists** VCI WGK: No products were found.

**State Regulations** No products were found.

**California prop. 65: No products were found.**

## Section 16. Other Information

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

Health	1
Fire Hazard	0
Reactivity	0
Personal Protection	E

**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 referenced under headings 2 and 3:*  
 Irritating to eyes.

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

**NHS-Fluorescein**

Validated by Pierce Administration on 3/6/2003.

Verified by Pierce Administration.

Date of Previous Issue No Previous  
Validation

---

Printed 3/6/2003.

Version

0.02

**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.*