

3. HAZARD IDENTIFICATION

(ctd).

INHALATION

May cause blood damage with blueness of the lips (cyanosis), strong headache, nausea, coughing.

4. FIRST AID MEASURES

EYES

In case of eye contact, flush eyes immediately with plenty of water for at least 15 minutes. Get medical attention if irritation develops.

SKIN

Wash well with soap and water. Remove contaminated clothing and laundry before use. If irritation persists, get medical attention

INGESTION

Give a glass of water. If necessary get a medical attention or contact the local Poison Control Center.

INHALATION

Remove the individual to fresh air. If breathing is difficult give oxygen, get medical attention.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Use any extinguishing agent which is suitable for the surrounding fire.
Follow the fire prevention indications applicable to the storage-room.

FIRE FIGHTING INSTRUCTIONS

Wear self-contained breathing apparatus and protective clothing that is appropriate for fighting a typical fire involving chemical materials.

6. ACCIDENTAL RELEASE MEASURES .

Contain spill by placing a suitable absorbent material around the edges of the spill and work inward. Carefully scoop up into appropriate waste container for disposal.

Do not empty into drains.

7. HANDLING AND STORAGE

HANDLING AND STORAGE PRECAUTIONS

Avoid contact with skin and eyes and prolonged exposure.

The product is stable until the expiration date shown on the box and on the labels when stored at 2 - 8°C.

WORK/HYGIENIC PRACTICES

Wash hands with soap and water after use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

The product does not contain great amounts of dangerous substances. The threshold limit values (TLV) don't have to be under control for the exposure to people in the workplace.

Threshold limit values regarding the raw materials:

ACGIH TLV-TWA:

p-nitroaniline 3 mg/m³ (skin)

US OSHA PEL:

p-nitroaniline 8H TWA 1 ppm 6 mg/m³ (skin)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

(ctd.)

Eye/Face protection

Safety glasses or splash goggles are recommended.

Hand Protection

Wear rubber or plastic gloves.

Skin Protection

Wear rubber or plastic gloves and other protective clothing (lab. coat) as required to prevent skin contact.

Respiratory Protection

None normally required with adequate ventilation.

If ventilation is insufficient, suitable respiratory protection must be provided. Dust filter P3 (for especially fine dust/powder)

Hygienic Work Practices

Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes wet or contaminated.

Do not smoke in work area. Wash at the end of each work shift and before eating.

9. PHYSICAL AND CHEMICAL PROPERTIES

Substrate S-2238

Appearance:	lyophilized powder
Colour:	white
Odour:	odourless
Density:	not applicable.
pH:	not available.
Vapour Pressure:	not determined.
Specific Gravity:	not determined.
Solubility (H ₂ O):	completely miscible.
Evaporation rate:	not applicable
Viscosity:	not applicable
Boiling Point (°C):	not available
Melting Point (°C):	not available
Flash Point:	not applicable
Lower Explosive Limit (%):	not applicable
Upper Explosive Limit (%):	not applicable
Fire and Explosion Hazards:	not applicable

10. STABILITY AND REACTIVITY

STABILITY: stable

INCOMPATIBLE MATERIALS

p-NA: strong oxidizing agents, strong acids and bases.

HAZARDOUS DECOMPOSITION PRODUCTS

-Substrate S-2238 : harmful fumes of oxides of carbon and nitrogen may be formed during thermal decomposition.

HAZARDOUS POLYMERIZATION: will not occur

11. TOXICOLOGICAL INFORMATION

MISCELLANEOUS TOXICOLOGICAL INFORMATION

p-Nitroaniline (raw material): orl-rat LD50 750 mg/Kg; oral mouse LD50: 810 mg/Kg; intraperitoneal mouse LD50: 800 mg/Kg; TLV-TWA 3.0 mg/m³; mutagenic data (NIOSH).

11. TOXICOLOGICAL INFORMATION

(ctd)

Peptide: ivn-mouse LD50 appr. 100mg/kg.

p-NA is chemically coupled to the peptide molecule but is cleaved by proteolytic enzyme e.g. trypsin in digestive tract.

The health effects noted above are based on the extrapolation of data on the pure product ingredients. To the best of our knowledge, no health effects have been identified for the product mixture under normal conditions of use, although the health effects of the product have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

OTHER ENVIRONMENTAL INFORMATION

p-nitroaniline (p-NA): Daphnia Magna : 48 Hr-LC50 = 20-30 ppm, slightly toxic.

: LC50 Fish Species: Pimephales Promelas: 96 Hr. 85.7-142 mg/L

Use in accordance with good laboratory practice. Do not waste in the environment.

13. DISPOSAL CONSIDERATIONS

The product waste is classified as non toxic and harmful.

Dispose of in accordance with local regulations.

Used waste products, surplus products or spillage products shall be disposed of in accordance with national and local laws. It is up to the user to classify the waste correctly prior to disposal.

14. TRANSPORT INFORMATION

ADR (road): Reference (p-NA as raw material): UN 1661; class 6.1

IMDG (sea): not available

RID (rail): Reference (p-NA as raw material): UN 1661; class 6.1

ICAO/IATA (air): Reference (p-NA as raw material): UN 1661; class 6.1

No special precaution is required.

15. REGULATORY INFORMATION

This product is classified and labeled in accordance with Directive 1999/45/EC and following modifications. The health hazard classification has been determined based on composition and hazard data of each ingredient.

Physical and health hazard information on the reagent mixture has not been determined.

Any physical and health hazard information noted is based on a) evaluation of data of the pure ingredient and b) concentration of each ingredient.

Kit Hazard Classification

- EC Symbol: **Xn (Harmful)**

- Risk Code: **R20/21/22**: harmful by inhalation, in contact with skin and if swallowed.

- Safety Code: **S24/25 - 29 - 36**

S24/25: avoid contact with skin and eyes.

S29: do not empty into drains.

S36: wear suitable protective clothing.

16. OTHER INFORMATION

REFERENCE DOCUMENTATION

Primary references used in the preparation of this document:

1. Product Specification.
- 2.. This Reagent Safety Data Sheet has been drawn in accordance with Directive 2001/58/EC.

NOTE

The information supplied in this Safety Data Sheet represents the data and best information available at the date of preparation . It is provided with the aim of allowing proper and safe use, storage, transport and disposal of the product. It is not to be considered as a warranty or specification of product quality. It is related to the materials specifically indicated and does not apply if these are used in combination with other materials or during processes not specifically indicated in the text of this Safety Data Sheet.

Drawn by

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