

**NANORESTORE PG6 PEN**Safety data sheet dated: 11/09/2018
Revision: 0 of: 11/09/2018**SAFETY DATA INFORMATION SHEET**

SDIS not obligatory, as the product is not classified as hazardous in accordance with national and European laws neither requires a safety data sheet in accordance with Article 31(3) of the REACH Regulation 1907/06 as amended by art. 59 (2) (b) of Reg. 1272/08

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

1.1 Product identifier: **NANORESTORE GE PG6 PEN**

1.2 Relevant identified uses of the substance or mixture and uses advised against:
Laboratory chemicals. Manufacture of substances

1.3 Details of the supplier of the safety data sheet:

Deffner & Johann GmbH
Mühlackerstr. 13
97520 Röhlein
Germany
Tel. +49-(0)9723-93500

1.4 Emergency phone number:
Tel.: +49-(0)9723-93500 (call during office hours)

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:

This mixture is not dangerous under (CE) 1272/2008 e 790/2009 directives and subsequent amendments.

Hazard statement Code(s):

None

2.2. Label elements:

Pictogram, Signal Word Code(s):

None

Hazard statement Code(s):

None

Precautionary statements:

None

2.3. Other hazards:

none information

3. Composition/Information on ingredients

3.2 Mixtures

Chemical composition: Mixture of Poly(vinyl alcohol) and polyvinylpyrrolidone in water

4. First-aid measures

4.1 Description of first aid measures

Inhalation

Not expected

Skin contact

Not dangerous.

Eyes contact

Flush eyes with water as a precaution.

Ingestion

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Other

Not available.

4.2. Most important symptoms and effects, both acute and delayed

Not available

4.3. Indication of any immediate medical attention and special treatment needed

Not available

5. Fire-fighting measures

5.1 Extinguishing media

Advised extinguishing agents:

CO₂, water spray, alcohol resistant foam, chemical powder.

Unsuitable extinction methods:

none

5.2. Special hazards arising from the substance or mixture

The product under fire condition may develop irritant/toxic gas (CO_x, NO_x)

5.3. Advice for firefighters

Wear the fire equipment all the time. Water used in fire-fighting has to be disposed following Local regulation.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency dust procedures

Avoid the contact with eyes. Move away any unauthorised person.

6.2. Environmental precautions

Collect the product in suitable container for disposal.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Refer to paragraphs 8 and 13 for more information

7. Handling and storage

7.1. Precautions for safe handling

Follow the good industrial hygiene and safety procedures. Do not smoke, eat or drink during the working processes.

7.2. Conditions for safe storage, including any incompatibilities

Store the gels immersed in water. Refer to technical data sheet for complete information.

7.3. Specific end use(s)

For particular uses of the product, is necessary to refer to the specific information or contact the technical service of the Company.

8. Exposure controls/ personal protection

8.1. Control parameters

None

8.2 Exposure controls

Avoid all unnecessary exposure, handle in accordance with good industrial hygiene and safety procedures. Avoid contact with the eyes and skin. Do not eat, drink or smoke while handling it. Accurately wash the hands with soap and water before meals.

Individual protection

The DPI's choice must be done on the basis of the test's results obtained according to the rule EN 374

| | |
|------------------------|--------------------------------|
| Hand protection | : protective gloves |
| Eye protection | : not necessary for normal use |
| Skin protection | : not necessary for normal use |
| Respiratory protection | : not necessary for normal use |

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical and chemical properties | Value | Determination method |
|--|--------------------------------|----------------------|
| Appearance | transparent visco-elastic gel. | |
| Odor | odourless | |
| Odor threshold | not available | |
| pH | 6-7 | |
| Melting point/freezing point | not available | |
| Initial boiling point and boiling range | not available | |
| Flash point | not flammable | |
| Evaporation rate | not applicable | |
| Flammability (solid, gas) | not applicable | |
| Upper/lower flammability or explosive limits | not applicable | |
| Vapour pressure | not available | |

| | |
|--|----------------------|
| Vapour density | not available |
| Density | >1 g/cm ³ |
| Solubility | not available |
| Water solubility | not available |
| Partition coefficient: n-octanol/water | not available |
| Auto-ignition temperature | non autoflammable |
| Decomposition temperature | not available |
| Viscosity | not available |
| Explosive properties | not explosive |
| Oxidising properties | not oxidising |

9.2. Other information

VOC (Directive 1999/13/CE): -%

10. Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

no data available

10.4. Conditions to avoid

no data available

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Due to thermal decomposition or in the event of a fire vapours may be produced potentially dangerous to health (CO_x, NO_x).

11. Toxicological information

11.1. Information on toxicological effects

Acute effects:

- (a) acute toxicity: based on available data, the classification criteria are not met.
- (b) skin corrosion/irritation based on available data, the classification criteria are not met.
- (c) serious eye damage/irritation: based on available data, the classification criteria are not met.
- (d) respiratory or skin sensitization: based on available data, the classification criteria are not met.
- (e) germ cell mutagenicity: based on available data, the classification criteria are not met.
- (f) carcinogenicity: based on available data, the classification criteria are not met.
- (g) reproductive toxicity: based on available data, the classification criteria are not met.
- (h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.
- (i) specific target organ toxicity (STOT) repeated exposure based on available data, the classification criteria are not met.
- (j) aspiration hazard: based on available data, the classification criteria are not met.

Additional Information:

Polyvinylpyrrolidone: Unexcreted particles may be phagocytized by cells of the reticuloendothelial system and deposited in storage sites in the liver, spleen, lung, and bone marrow resulting in the storage disease thesaurosis. Severity and symptoms depend on storage site and nature of the particle. Pathological changes are not necessarily attributed to the thesaurosis, but in some cases an inflammation or granulomatoma have occurred.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

12.1. Toxicity

Use this product according to good working practices. Avoid litter. Inform the competent authorities if the product enters waterways or sewers or contaminates soil or vegetation.

12.2. Persistence and degradability: not available

12.3. Bioaccumulative potential: not available

12.4. Mobility in soil: not available

12.5. Results of PBT and vPvB assessment: not available

12.6. Other adverse effects: not available

13. Disposal considerations

13.1. Waste treatment methods

Operate following the current Local or National Laws.

The non reclaimed containers have to be disposed as the product.

14. Transport information

14.1. UN number

Not included in the scope of application regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

14.2. UN proper shipping name

None

14.3. Transport hazard class(es)

None

14.4. Packing group

None

14.5. Environmental hazards

None

14.6. Special precautions for user

No data available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

It is not intended to carry bulk.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

| Regulation | CAS | Substance |
|---|-----|-----------|
| Reg. (EC) 428/2009 ex CE 1334/2000 Ann.1 | - | - |
| Reg. (EC) 273/04 Tab.1 Cat.1 | - | - |
| Reg. (EU) 98/2013 Tab. 1 | - | - |
| Reg. (EU) 98/2013 Tab. 2 | - | - |
| Reg. (EU) 1258/2013 ex Reg. (EC) 273/04 Tab.1 Cat.2 | - | - |
| Reg. (EC) 273/04 Tab.1 Cat.3 | - | - |
| Reg. (EC) 1907/2006 Ann. XIV | - | - |
| Reg. (EC) 1907/2006 Substances SVHC | - | - |
| Reg. (EC) 1907/2006 Ann. XVII | - | - |
| Directive 2012/18/UE Ann.1 part 1 | - | - |
| Directive 2012/18/UE Ann.1 part 2 | - | - |

15.2. Chemical safety assessment

none

16. Other information

Description of the sentences of risk set out in paragraph 3:

not available

Classification based on data of all components of the mixture

Abbreviations and acronyms:

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

PBT = Persistent, Bioaccumulative and Toxic

vPvB = Very Persistent and Very Bioaccumulative

LD50 = Lethal Dose 50

CL50 = Lethal concentration 50

GENERAL BIBLIOGRAPHY:

1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
2. Regulation (EC) 1272/2008 of the European Parliament (CLP) and its amendments and adjustments
3. Regulation (EC) 790 / 2009
4. Regulation (EU) 453/2010
5. Regulation (EU) 830/2015
6. The Merck Index. Ed 10
7. Handling Chemical Safety
8. NIOSH - Registry of Toxic Effects of Chemical Substances
9. INRS - Fiche Toxicologique
10. Patty - Industrial Hygiene and Toxicology
11. NI Sax - Dangerous Properties of Industrial Materials-7, 1989 Edition
12. ADR Directive 2008/68/CE and its amendments and adjustments

13. ECHA Web site <http://echa.europa.eu/web/guest>
14. Directive 2012/18/UE
15. Directive 2009/161/UE

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product .This document must not be regarded as a guarantee on any specific product property. The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.