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|  | Document Integrated Quality Management System                 | Document number: | D7/P4      |
|   | <b>Safety Data Sheet</b><br><b>Heliopol – modified starch</b> | Version:         | 03/EN      |
|   |   | Date of issue:   | 2011.04.27 |
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[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

### Section 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

**Heliopol – modified starch. Preparation for starching soluble cold.**

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: dressing fabrics, tablecloths, bed linen. The product for home use as in professional laundries.

Uses advised against: not determined.

#### 1.3 Details of the supplier of the safety data sheet

Producer: **Przedsiębiorstwo Przemysłu Ziemniaczanego SA w Niechlowie**

Address: 56-215 Niechlów, ul. Przemysłowa 8, Poland

Telephone number /Fax: +48 65 543 56 26

E-mail address for a competent person responsible for SDS: grabowski@ppz-niechlów.pl

#### 1.4 Emergency telephone number

112

### Section 2: Hazards identification

#### 2.1 Classification of the substance or mixture

This product is not classified as hazardous for human life and health and for the environment.

#### 2.2 Label elements

Hazard pictograms and signal words

None.

Hazard statements

None.

Precautionary statements

None.

Additional labelling\*

EUH210 Safety data sheet available on request.

\* notation required for products not intended for the general public

#### 2.3 Other hazards

Product does not contain ingredients, which meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

### Section 3: Composition/information on ingredients

#### 3.2 Mixtures


The product is a mixture of potato starch and oxidized starch with the addition of sodium sulfate. The mixture contains components classified as hazardous:

disodium tetraborate decahydrate

Range of percentages: 3%

CAS number: 1303-96-4

EC number: 215-540-4

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Index number: 005-011-01-1  
 Registration number: 01-2119490790-32-XXXX  
 Classification acc. to 1272/2008/EC: Eye Irrit. 2 H319, Repr. 1B H360FD  
 Specific Concentration Limits: Repr. 1B H360FD: C ≥ 8,5%  
 Full text of each relevant H phrase is given in section 16 of SDS.

#### Section 4: First aid measures

##### 4.1 Description of first aid measures

Skin contact: take off contaminated clothes. Wash skin with plenty of cool, running water. Consult a doctor, if disturbing symptoms occur.

Eye contact: remove any contact lenses. Immediately wash out an eye with plenty of running, cool, water with the eyelid hold wide open, for at least 15 min. Protect non-irritated eye. Consult a doctor, if disturbing symptoms occur.

Ingestion: rinse mouth with water. Consult a doctor, if disturbing symptoms occur.

Inhalation: remove to fresh air. Keep warm and calm. Consult a doctor, if disturbing symptoms occur.

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

Eye contact: mechanical irritation, redness, tearing.

Inhalation: high concentration of dust may cause irritation, cough.

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

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured.

#### Section 5: Firefighting measures

##### 5.1 Extinguishing media

Suitable extinguishing media: water, extinguishing powders, alcohol resistant foam, carbon dioxide. Use extinguishing media appropriate to the burning materials in the surroundings.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

##### 5.2 Special hazards arising from the substance or mixture

May produce toxic fumes, vapours and gases of carbon oxides, sulphur oxides, sodium oxides if burning. Do not inhale combustion products – they can be dangerous for health.

##### 5.3 Advice for firefighters

High concentration of dust in the air may cause explosion. Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Cool reservoirs at risk of fire from a safe distance water spray. Do not let extinguishing media to reach drainage system. Collect used extinguishing media. In case of fire cool endangered containers with water spray from the safe distance.


#### Section 6: Accidental release measures

##### 6.1 Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. In case of large spills, isolate the affected area. Wear adequate personal protective equipment. Ensure adequate ventilation. Avoid dust forming and inhalation.

##### 6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

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### 6.3 Methods and material for containment and cleaning up

Collect mechanically, avoid dust formation. and treat it as a waste. Clean and ventilate contaminated surface.

### 6.4 Reference to other sections

Appropriate conduct with product wastes – section 13.

Appropriate personal protective equipment – section 8.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Avoid eyes contamination. Ensure adequate ventilation. Avoid dust forming and inhalation. Wash hands before break and after work. Keep unused containers closed tightly. Use only with purpose.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep only in original, tightly closed containers, in cool, dry and well-ventilated place. Keep away from foodstuffs and animal feed. Protect from water and moisture.

### 7.3 Specific end use(s)

No information about uses other than mentioned in subsection 1.2.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters


For substances contained in the product are not defined any occupational exposure limit values at working place in Community. Please check any national occupational exposure limit values in your country (Legal Basis: Commission Directive 2006/15/EC, 2000/39/EC, 2009/161/EC, 2017/164/EU).

#### DNEL's values for ingredients

| DNEL  | disodium tetraborate decahydrate<br>[CAS 1303-96-4] |                        |
|---|---|------------------------|
|   | worker  | consumer               |
| skin, long-time exposure, local effect          | 42478 mg/kg   | —                      |
| skin, long-time exposure, systemic effect       | 303,5 mg/kg   | 1,5 mg/kg              |
| oral, long-time exposure, systemic effect       | —   | 1,5 mg/kg              |
| oral, short-time exposure, systemic effect      | —   | 1,5 mg/kg              |
| inhalation, long-time exposure, systemic effect | 12,8 mg/m <sup>3</sup>                              | 6,5 mg/m <sup>3</sup>  |
| inhalation, short-time exposure, local effect   | 22,3 mg/m <sup>3</sup>                              | 22,3 mg/m <sup>3</sup> |

#### PNEC's values for ingredients

| PNEC                  | disodium tetraborate decahydrate<br>[CAS 1303-96-4] |
|-----------------------|---|
| fresh water           | 1,35 mg/l   |
| marine water          | 1,35 mg/l   |
| fresh water sediment  | 1,85 mg/kg  |
| marine water sediment | 1,85 mg/kg  |
| soil                  | 5,4 mg/kg   |
| STP                   | 1,75 mg/l   |
| PNEC (turquoise)      | 9,1 mg/l  |

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## 8.2 Exposure controls

Use the product in accordance with good occupational hygiene and safety practices. When handlings do not eat, drink or smoke. Before break and after work wash hands. Provide effective local ventilation at the workplace. Avoid contact with eye. Do not inhale dust.

### Hand and body protection

Not required. Gloves and protective clothing are recommended while pouring large quantities of product.

### Eye protection

Not required. Safety glasses are recommended while pouring large quantities of product.

### Respiratory protection

Respiratory protection is required if in the case of dusty.

Personal protective equipment must meet requirements of Regulation 2016/425/EU. Employer is obliged to ensure equipment adequate to activities carried out, with quality demands, cleaning and maintenance.

### Thermal hazards

Not known.

### Environmental exposure controls

Avoid release to the environment, do not enter the sewage system. Any emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.


## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|   |  |
|---|--|
| physical state/form:                          | solid/powder   |
| colour:                                       | white  |
| odour:  | odourless  |
| odour threshold:                              | not determined   |
| pH (solution):                                | not applicable   |
| melting point/freezing point:                 | not determined   |
| initial boiling point and boiling range:      | not applicable   |
| flash point:                                  | ca. 380°C  |
| evaporation rate:                             | not applicable   |
| flammability (solid, gas):                    | non-inflammable  |
| upper/lower flammability or explosive limits: | not determined   |
| vapour pressure:                              | not determined   |
| vapour density:                               | not determined   |
| density:                                      | not determined   |
| solubility(ies):                              | soluble in water   |
| partition coefficient: n-octanol/water:       | not determined   |
| auto-ignition temperature:                    | not determined   |
| decomposition temperature:                    | not determined   |
| explosive properties:                         | high concentration of dust may create explosive mixture with air |
| oxidising properties:                         | not display  |
| viscosity (solution):                         | not determined   |

### 9.2 Other information

No additional test results.

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## Section 10: Stability and reactivity

### 10.1 Reactivity

The product does not polymerize. Product dust may form explosive mixtures with air. More information in subsections 10.3-10.5.

### 10.2 Chemical stability

The product is stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Not known.

### 10.4 Conditions to avoid

Avoid moisture.

### 10.5 Incompatible materials

Strong oxidisers.

### 10.6 Hazardous decomposition products

Not known.

## Section 11: Toxicological information

### 11.1 Information on toxicological effects

Information regarding acute and/or delayed results of the exposure was defined on the basis of the information on product's classification and/or toxicological studies as well as the experience and knowledge of the manufacturer.

#### Toxicity of ingredients

disodium tetraborate decahydrate [CAS 1303-96-4]

|                                    |               |
|------------------------------------|---------------|
| LD <sub>50</sub> (oral, rat)       | 6 000 mg/kg   |
| LD <sub>50</sub> (skin, rabbit)    | > 2 000 mg/kg |
| LC <sub>50</sub> (inhalation, rat) | > 2 mg/l      |

sodium sulphate [CAS 7757-82-6]

|  |             |
|--|-------------|
| LD <sub>50</sub> (oral, mouse)           | 6 000 mg/kg |
| LDL <sub>0</sub> (intravenously, rabbit) | 4470 mg/kg  |

#### Toxicity of mixture

##### Acute toxicity

Based on available data, the classification criteria are not met.

##### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

##### Serious eye damage/irritation

Based on available data, the classification criteria are not met.

##### Respiratory or skin sensitization


Based on available data, the classification criteria are not met.

##### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

##### Carcinogenicity

Based on available data, the classification criteria are not met.

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Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

## Section 12: Ecological information

### 12.1 Toxicity

#### Toxicity of ingredients

disodium tetraborate decahydrate [CAS 1303-96-4]

Toxicity for algae EC<sub>50</sub> 40 mgB/l/72h (*Pseudokirchneriella subcapitata*)

Toxicity for daphnia LC<sub>50</sub> 133 mgB/l/48h (*Daphnia magna*)

Toxicity for fish LC<sub>50</sub> 79,7 mgB/l/96h (*Pimephales promelas*)

sodium sulphate [CAS 7757-82-6]

Toxicity for algae 1 900 mg/l/5 days (*Nitzschia linearis*)

Toxicity for daphnia EC<sub>50</sub> 4 547 mg/l/100h (*Daphnia magna*)

Toxicity for fish LC<sub>50</sub> 13 500 mg/l/96h (*Lepomis macrochirus*)

#### Toxicity of mixture

Product is not classified as hazardous for the environment.

### 12.2 Persistence and degradability

Disodium tetraborate decahydrate biodegradable natural borates. Boron is an element occurring naturally in the environment. Biodegradability does not apply to inorganic products (sodium sulfate).

### 12.3 Bioaccumulative potential

Bioaccumulation is not expected.

### 12.4 Mobility in soil


Mobility of components of the mixture depends on the hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms.

### 12.5 Results of PBT and vPvB assessment

The product does not contain any Persistent, Bioaccumulative and Toxic substance (PBT) and very Persistent, very Bioaccumulative substance (vPvB).

### 12.6 Other adverse effects

Product is not classified as hazardous to the ozone layer. Consider other harmful effects of individual components of the mixture on the environment (eg, endocrine disrupting potential, global warming potential).

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### Section 13: Disposal considerations

#### 13.1 Waste treatment methods

Disposal methods for the product: disposal in accordance with the local legislation. Store product wastes in original containers. Recycling is preferable. The proposed code: 07 07 99 (wastes not otherwise specified). Waste code should be given at the place of manufacture.

Disposal methods for used packing: reuse/recycling/liquidation of empty containers should be carried out in accordance with the local legislation. Only completely emptied packaging can be recycled.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

### Section 14: Transport information

#### 14.1 UN number

Not applicable, product is not classified as dangerous during transport.

#### 14.2 UN proper shipping name

Not applicable.

#### 14.3 Transport hazard class(es)

Not applicable.

#### 14.4 Packing group

Not applicable.

#### 14.5 Environmental hazards

Not applicable.

#### 14.6 Special precautions for user

Not required.

#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

### Section 15: Regulatory information

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

**Regulation (EC) No 1907/2006** of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.


**Regulation (EC) No 1272/2008** of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance) as amended.

**Commission Regulation (EU) 2015/830** of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

**Directive 2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.

**European Parliament and Council Directive 94/62/EC** of 20 December 1994 on packaging and packaging waste as amended.

**Commission Directive 2000/39/EC** of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

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**Commission Directive 2006/15/EC** of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

**Commission Directive 2009/161/EU** of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

**Commission Directive 2017/164/EU** of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

**Regulation (EU) 2016/425** of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

## 15.2 Chemical safety assessment

Chemical safety assessment was prepared for disodium tetraborate decahydrate.

### Section 16: Other information

#### Full text of indicated H phrases mentioned in section 3

H319 Causes serious eye irritation.  
H360FD May damage fertility. May damage the unborn child.

#### Clarification of aberrations and acronyms

PBT Persistent, Bioaccumulative and Toxic substance  
vPvB very Persistent, very Bioaccumulative substance  
Eye Irrit. 2 Eye irritation category 2  
Repr. 1 B Reproductive toxicity category 1B  
DNEL Derived No-Effect Level  
PNEC Predicted No Effect Concentration

#### Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

#### Key literature references and data sources

This SDS was prepared on the basis of information provided by producer, literature data, online databases as well as our knowledge and experience, taking into account current legislation.

#### Other data

Classification was based on data of hazardous substances calculation method under the guidance of Regulation 1272/2008/EC (CLP) as amended.

Changes: section 1, 3, 6, 8, 10, 11, 12, 13, 15, 16.

Composed by: Kinga Wasilewska (on the basis of producer's data).

Safety Data Sheet made by: „THETA” Doradztwo Techniczne

**This Safety Data Sheet cancels and replaces all the previous versions.**

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.