

## Safety data sheet

acc. to 1907/2006/EC, Article 31 (REACH), 1272/2008/EC (CLP)

Printing date 13.06.2018

Version number 3

Revision: 13.06.2018

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

**1.1 Product identifier**

Trade name **JOHA PZ 6**

Article number: **BK7459B**

Article number: BK7459B

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

No further relevant information available.

**Application of the substance / the mixture** Food additives

**Uses advised against** Uses other than those recommended.

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

**Manufacturer/Supplier:**

BK Giulini GmbH  
Member of ICL Group  
Works Ladenburg, Dr.A.Reimann-Str.2  
68526 Ladenburg  
Germany

www.icl-group.com  
Tel: +49 6203 / 77-0  
Fax: +49 6203 / 77-7256

**Information:**

Business Unit Food Specialties  
Product information: Phone: + 49 6203 77 7148  
Contact MSDS: MSDS@icl-group.com

**1.4 Emergency telephone number:** Works Ladenburg Phone +49 6203 / 77-112

### SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture**

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

Eye Dam. 1 H318 Causes serious eye damage.

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms**



GHS05

**Signal word** Danger

**Hazard-determining components of labelling:**

tetrasodium pyrophosphate

**Hazard statements**

H318 Causes serious eye damage.

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

**Information pertaining to particular dangers for man and environment**

Aqueous solutions or powders that become wet produce extremely slippery conditions.

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- . 2.3 Other hazards
- . Results of PBT and vPvB assessment
- . PBT: not applicable
- . vPvB: not applicable

### SECTION 3: Composition/information on ingredients

#### . 3.2 Chemical characterisation: Mixtures

##### . Description:

Mixture consisting of the following components:

Di-, poly- and monophosphates (E 450, E 452, E 339)

Sodium citrate (E 331)

##### . Dangerous components:

|                                |  |           |
|--------------------------------|--|-----------|
| CAS: 7722-88-5                 | tetrasodium pyrophosphate                                | 10-<25%   |
| EINECS: 231-767-1              | Eye Dam. 1, H318; Acute Tox. 4, H302                     |           |
| Reg.nr.: 01-2119489794-17-0001 |  |           |
| CAS: 7758-16-9                 | Disodium dihydrogendiphosphate                           | 2.5-<10%  |
| EINECS: 231-835-0              | Eye Irrit. 2, H319                                       |           |
| Reg.nr.: 01-2119489793-19-0001 |  |           |
| CAS: 7601-54-9                 | Trisodium monophosphate                                  | 0.1-<2.5% |
| EINECS: 231-509-8              | Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 |           |
| Reg.nr.: 01-2119489800-32-0003 |  |           |

##### . SVHC No

- . Additional information For the wording of the listed hazard phrases refer to section 16.

### \* SECTION 4: First aid measures

#### . 4.1 Description of first aid measures

- . General information Instantly remove any clothing soiled by the product.

- . After inhalation : Supply fresh air; consult doctor in case of symptoms.

##### . After skin contact :

Wash with water and soap.

In case of persistent symptoms consult doctor.

##### . After eye contact :

Rinse opened eye for 15 minutes under running water.

Call a doctor immediately.

##### . After swallowing :

Rinse out mouth and then drink plenty of water (approx. 500 ml).

In case of persistent symptoms consult doctor.

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

The most important known symptoms and effects are described in the labelling (see section 2) and / or in section 11.

Further important symptoms and effects are so far not known.

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

No further relevant information available.

### \* SECTION 5: Firefighting measures

#### . 5.1 Extinguishing media

- . Suitable extinguishing agents CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with foam.

- . For safety reasons unsuitable extinguishing agents Water with a full water jet.

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

Fire can cause release of :

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Phosphorus oxides (PxOy)  
sodium oxide  
Carbon oxides (CO and CO<sub>2</sub>)

### 5.3 Advice for firefighters

#### Protective equipment:

Wear self-contained breathing apparatus.  
Do not inhale explosion gases or combustion gases.

#### Additional information

Aqueous solutions or powders that become wet produce extremely slippery conditions.  
Collect contaminated fire fighting water separately. It must not enter drains.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## SECTION 6: Accidental release measures

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

Avoid causing dust.  
Ensure adequate ventilation  
Wear protective clothing.  
Product forms slippery surface when combined with water.

### 6.2 Environmental precautions:

Do not allow concentrated solutions to enter drainage system, surface or ground water.

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

Collect mechanically.  
Avoid causing dust.  
Clean floors dry. Floors get extremely slippery if cleaned with water.  
Dispose of the material collected according to regulations.

### 6.4 Reference to other sections

See section 7 for information on safe handling  
See section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Prevent formation of dust.  
Provide suction extractors if dust is formed.  
Keep containers tightly sealed.  
Aqueous solutions or powders that become wet produce extremely slippery conditions.  
Do not spray / Prevent formation of aerosols.

**Information about protection against explosions and fires:** The product is not flammable

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

#### Storage

**Requirements to be met by storerooms and containers:** No special requirements.

#### Information about storage in one common storage facility:

Store away from oxidising agents.  
Store away from water.

#### Further information about storage conditions:

Store in cool, dry conditions in well sealed containers.  
Keep container tightly sealed.  
Protect from heat and direct sunlight.  
Protect from humidity and keep away from water.

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. 7.3 Specific end use(s) No further relevant information available.

### SECTION 8: Exposure controls/personal protection

. Additional information about design of technical systems: No further data; see section 7.

#### . 8.1 Control parameters

. Components with critical values that require monitoring at the workplace:

##### 7722-88-5 tetrasodium pyrophosphate

WEL (Great Britain) Long-term value: 5 mg/m<sup>3</sup>

#### . DNELs

##### 7722-88-5 tetrasodium pyrophosphate

Inhalative Worker 44.08 mg/m<sup>3</sup> (long-term exposure, systemic effects)

General population 10.87 mg/m<sup>3</sup> (long-term exposure, systemic effects)

##### 7758-16-9 Disodium dihydrogendiphosphate

Inhalative Worker 44.08 mg/m<sup>3</sup> (long-term exposure, systemic effects)

General population 10.87 mg/m<sup>3</sup> (long-term exposure, systemic effects)

##### 7601-54-9 Trisodium monophosphate

Inhalative Worker 4.07 mg/m<sup>3</sup> (long-term exposure, systemic effects)

General population 3.04 mg/m<sup>3</sup> (long-term exposure, systemic effects)

#### . CAS No. Designation of material % Type Value Unit

General dust exposure limit, German TRGS 900 (2015) 1,25 mg/m<sup>3</sup>  
measured as alveolic part

. Additional information: The lists that were valid during compilation were used as a basis.

#### . 8.2 Exposure controls

##### . Personal protective equipment

##### . General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

##### . Breathing equipment:

Required when dusts are generated.

Dust mask according to DIN EN 140 or 149 (FFP1 or FFP2)

Use breathing protection in case of insufficient ventilation.

##### . Protection of hands:

Protective gloves:

In case of spray contact at least protection index 2 recommended, according to more than 30 min. penetration time (EN 374).

Layer thickness of gloves at least: 0.4 mm

In case of prolonged and intensive contact protection index 6 recommended, according to more than 480 min. penetration time (EN 374).

Layer thickness of gloves at least: 0.7 mm

##### . Material of gloves

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Nitrile rubber, NBR

Natural rubber, NR

Chloroprene rubber, CR

Neoprene gloves

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. **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

. **Eye protection:** Tightly sealed safety glasses (DIN 58211, EN 166)

. **Body protection:** Light weight protective clothing

### SECTION 9: Physical and chemical properties

. **9.1 Information on basic physical and chemical properties**

. **General Information**

. **Appearance:**

Form: Powder

Colour: White

. **Smell:** Odourless

. **Odour threshold:** not applicable

. **pH-value at 20 °C:** ~7.6

. **Change in condition**

Melting point/freezing point: not determined

Initial boiling point and boiling range: not determined

. **Flash point:** not applicable

. **Inflammability (solid, gaseous)** Not determined.

. **Ignition temperature:** not applicable

. **Decomposition temperature:** not determined

. **Self-inflammability:** Not determined.

. **Explosive properties:** Product is not explosive.

. **Critical values for explosion:**

Lower: not determined

Upper: not determined

Dust explosion class: not determined

. **Oxidising properties** none

. **Steam pressure:** not applicable

. **Density**

Settled apparent density ~1.000 kg/m<sup>3</sup>

Evaporation rate not determined

. **Solubility in / Miscibility with**

Water: Readily soluble

. **Partition coefficient: n-octanol/water:** ~ -2 log POW

. **Viscosity:**

dynamic: not applicable

kinematic: not applicable

. **9.2 Other information** No further relevant information available.

### SECTION 10: Stability and reactivity

. **10.1 Reactivity** No hazardous reactions when stored and handled according to instructions.

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- . **10.2 Chemical stability**
- . **Thermal decomposition / conditions to be avoided:** Avoid elevated temperature over long periods.
- . **10.3 Possibility of hazardous reactions** Reacts with oxidizing agents
- . **10.4 Conditions to avoid**  
Avoid extreme temperatures.  
Protect from heat and direct sunlight.  
Exposure to moisture.
- . **10.5 Incompatible materials:** strong oxidizers
- . **10.6 Hazardous decomposition products:**  
Fire can cause release of :  
Phosphorus oxides (P<sub>x</sub>O<sub>y</sub>)  
sodium oxide  
Carbon oxides (CO and CO<sub>2</sub>)

## SECTION 11: Toxicological information

- . **11.1 Information on toxicological effects**
  - . **Acute toxicity** Based on available data, the classification criteria are not met.
  - . **LD/LC50 values that are relevant for classification:**
- |   |            |                       |                          |  |  |  |  |
|---|------------|-----------------------|--------------------------|--|--|--|--|
| <b>7722-88-5 tetrasodium pyrophosphate</b>      |            |                       |                          |  |  |  |  |
| Oral  | LD50       | 1,624 mg/kg (rat)     | (OECD 425)               |  |  |  |  |
| Dermal  | LD50       | >2,000 mg/kg (rabbit) |                          |  |  |  |  |
| <b>7758-16-9 Disodium dihydrogendiphosphate</b> |            |                       |                          |  |  |  |  |
| Oral  | LD50       | >2,000 mg/kg (rat)    | (WoE)                    |  |  |  |  |
| Dermal  | LD50       | >2,000 mg/kg (rabbit) | (OECD 402)               |  |  |  |  |
| Inhalative                                      | LC50       | >0.58 mg/L (rat)      | (OECD 403)               |  |  |  |  |
| <b>7601-54-9 Trisodium monophosphate</b>        |            |                       |                          |  |  |  |  |
| Oral  | LD50       | >2,000 mg/kg (rat)    | (OECD 420)               |  |  |  |  |
| Dermal  | LD50       | >2,000 mg/kg (rat)    | (OECD 402 (READ-Across)) |  |  |  |  |
| Inhalative                                      | LC50 (4 h) | >0.83 mg/L (rat)      | (OECD 403 (Read-across)) |  |  |  |  |
- |                     |             |              |                |                |               |             |                        |
|---------------------|-------------|--------------|----------------|----------------|---------------|-------------|------------------------|
| . <b>Components</b> | <b>Type</b> | <b>Value</b> | <b>Species</b> | <b>Product</b> | <b>ATEmix</b> | <b>oral</b> | <b>&gt; 5000 mg/kg</b> |
|---------------------|-------------|--------------|----------------|----------------|---------------|-------------|------------------------|
- . **Primary irritant effect:**
  - . **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
  - . **Serious eye damage/irritation**  
Causes serious eye damage.
  - . **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
  - . **Additional toxicological information:**
- |   |       |                        |                          |  |  |  |  |
|---|-------|------------------------|--------------------------|--|--|--|--|
| <b>7722-88-5 tetrasodium pyrophosphate</b>      |       |                        |                          |  |  |  |  |
| Oral  | NOAEL | 500 mg/kg bw/day (rat) | (OECD 408)               |  |  |  |  |
|   | NOEL  | 250 mg/kg bw/d (rat)   | (OECD 408)               |  |  |  |  |
| <b>7758-16-9 Disodium dihydrogendiphosphate</b> |       |                        |                          |  |  |  |  |
| Oral  | NOAEL | 500 mg/kg bw/day (rat) | (OECD 408 (READ ACROSS)) |  |  |  |  |
- . **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
  - . **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
  - . **Carcinogenicity** Based on available data, the classification criteria are not met.
  - . **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.

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

### SECTION 12: Ecological information

#### . 12.1 Toxicity

##### . Aquatic toxicity:

##### **7722-88-5 tetrasodium pyrophosphate**

LC50 (96 h) >100 mg/L (rainbow trout) (OECD 203 (READ-ACROSS))

EC50 (3 h) (static) >1,000 mg/L (bacteria) (OECD 209 (READ ACROSS))

EC50 (48 h) (static) >100 mg/L (daphnia magna) (EPA OTS 797.1300 (READ ACROSS))

EC50 (72 h) (static) >100 mg/L (desmodesmus subspicatus) (OECD 201 (READ-ACROSS))

##### **7758-16-9 Disodium dihydrogendiphosphate**

LC50 (96 h) >100 mg/L (rainbow trout) (OECD 203 (READ ACROSS))

840 mg/L (Salmo gairdneri)

EC50 (3 h) (static) >1,000 mg/L (activated sludge) (OECD 209 (READ ACROSS))

EC50 (48 h) (static) >100 mg/L (daphnia magna) (EPA OTS 797.1300 (READ ACROSS))

EC50 (72 h) (static) >100 mg/L (desmodesmus subspicatus) (OECD 201 (READ ACROSS))

NOEC 100 mg/L (rainbow trout) (OECD 203 (READ ACROSS))

100 mg/L (daphnia magna) (EPA OTS 797.1300 (READ ACROSS))

100 mg/L (desmodesmus subspicatus) (OECD 201 (READ ACROSS))

1,000 mg/L (activated sludge) (OECD 209 (READ ACROSS))

##### **7601-54-9 Trisodium monophosphate**

LC50 (96 h) >100 mg/L (rainbow trout) (OECD 203 (READ ACROSS))

EC50 (3 h) >1,000 mg/L (activated sludge) (OECD 209 (READ ACROSS))

EC50 (48 h) >100 mg/L (daphnia magna) (OECD 202 (READ ACROSS))

EC50 (72 h) >100 mg/L (desmodesmus subspicatus) (OECD 201 (READ ACROSS))

#### . 12.2 Persistence and degradability

Inorganic salts are basically not biodegradable.

The organic portion of the product is biodegradable.

#### . Behaviour in environmental systems:

##### . Components:

Product should not get in higher quantities into waste water because it may act as a plant nutrient and precipitate heavy metals.

#### . 12.3 Bioaccumulative potential

Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

#### . 12.4 Mobility in soil No further relevant information available.

#### . Ecotoxicological effects:

##### . Other information:

No AOX

No VOC according to EC-directive 1999/13/EC

#### . Additional ecological information:

##### . General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

#### . 12.5 Results of PBT and vPvB assessment

. **PBT:** Not applicable.

. **vPvB:** Not applicable.

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. **12.6 Other adverse effects** No further relevant information available.

### \* SECTION 13: Disposal considerations

. **13.1 Waste treatment methods**

. **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

. **European waste catalogue**

06 03 14 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

. **Uncleaned packaging:**

. **Recommendation:**

Dispose of packaging according to regulations on the disposal of packagings.

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

### SECTION 14: Transport information

. **14.1 UN-Number**

. **ADR/RID/ADN, IMDG, IATA**

Void

. **14.2 UN proper shipping name**

. **ADR/RID/ADN, IMDG, IATA**

Void

. **14.3 Transport hazard class(es)**

. **ADR/RID/ADN, IMDG, IATA**

. **Class**

Void

. **14.4 Packing group**

. **ADR/RID/ADN, IMDG, IATA**

Void

. **14.5 Environmental hazards:**

Not applicable.

. **14.6 Special precautions for user**

Not applicable.

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

Not applicable.

. **Transport/Additional information:**

Not dangerous according to the above regulations.

. **UN "Model Regulation":**

Void

### \* SECTION 15: Regulatory information

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

. **Directive 2012/18/EU**

. **Named dangerous substances - ANNEX I** None of the ingredients is listed.

. **National regulations** not determined

. **Information about limitation of use:** Employment restrictions concerning young persons must be observed.

. **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### \* SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. **Relevant phrases**

H302 Harmful if swallowed.

H315 Causes skin irritation.

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H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

. **Department issuing data specification sheet:** Hazard Communication

. **Contact:** MSDS@icl-group.com

. **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

. **Sources:** source ECHA: European Chemicals Agency, <http://echa.europa.eu/>

. \* **Data compared to the previous version altered.**