

# SAFETY DATA SHEET



according to Regulation (EC) No 1907/2006 (REACH) as amended

## Sodium dihydrogen orthophosphate monohydrate

|               |                  |         |     |
|---------------|------------------|---------|-----|
| Creation date | 01st June 2021   | Version | 1.3 |
| Revision date | 30th August 2024 |         |     |

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

- 1.1. Product identifier**  
Substance / mixture Sodium dihydrogen orthophosphate monohydrate substance  
Chemical name Sodium dihydrogen orthophosphate monohydrate  
CAS number 10049-21-5  
EC (EINECS) number 231-449-2  
Registration number 01-2119489796-13-0000
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**  
**Substance's intended use**  
Industrial chemicals  
**Substance uses advised against**  
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- 1.3. Details of the supplier of the safety data sheet**  
**Distributor**  
Name or trade name Macco Organiques, s.r.o.  
Address Zahradní 1938/46c, Bruntál 1, 792 01  
Czech Republic  
Identification number (CRN) 26819210  
VAT Reg No CZ26819210  
Phone +420 555 530 300  
E-mail macco@macco.cz  
**Competent person responsible for the safety data sheet**  
Name Petr Ševčík  
E-mail petr.sevcik@macco.cz
- 1.4. Emergency telephone number**  
European emergency number: 112

### SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture**  
**Classification of the substance in accordance with Regulation (EC) No 1272/2008**  
The substance is not classified as dangerous according to Regulation (EC) No 1272/2008.  
**Most serious adverse physico-chemical effects**  
Not specified.  
**Most serious adverse effects on human health and the environment**  
Not specified.
- 2.2. Label elements**  
**Signal word**  
none
- 2.3. Other hazards**  
The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

##### Chemical characterization

The substance specified below.

| Identification numbers  | Substance name  | Content in % weight | Classification according to Regulation (EC) No 1272/2008 | Note |
|---|---|---------------------|--|------|
| CAS: 10049-21-5<br>EC: 231-449-2<br>Registration number:<br>01-2119489796-13-0000 | <b>substance main component</b><br>Sodium dihydrogen orthophosphate monohydrate | 100                 | not classified as dangerous                              |      |

Full text of all classifications and hazard statements is given in the section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. In the event of unconsciousness, do not provide food by mouth.

##### If inhaled

Terminate the exposure immediately; move the affected person to fresh air. In the event of issues, find medical advice.

##### If on skin

Remove contaminated clothes.

##### If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. No neutralization should be performed in any case! Depending on the situation, call medical rescue service or ensure medical treatment.

##### If swallowed

Rinse out the mouth with clean water. In the event of issues, find medical help.

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

##### If inhaled

Not expected.

##### If on skin

Not expected.

##### If in eyes

Not expected.

##### If swallowed

Not expected.

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

Symptomatic treatment.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Accommodate extinguishing components to the location of fire.

##### Unsuitable extinguishing media

Water - full jet.

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

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

#### 5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with chemical resistant gloves. Use a self-contained breathing apparatus and full-body protective clothing.

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### SECTION 6: Accidental release measures

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

Follow the instructions in the Sections 7 and 8. Avoid dust formation.

#### 6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water. In the event of substantial pollution, contact respective authorities and wastewater treatment plants.

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

Place the product mechanically in an appropriate manner. Dispose of the collected material according to the instructions in the section 13.

#### 6.4. Reference to other sections

See the Section 7, 8 and 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Do not eat, drink or smoke when using this product. Prevent contact with skin and eyes. Do not inhale dust.

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

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose.

#### 7.3. Specific end use(s)

not available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Not specified.

#### 8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. Provide showers and eye wash possibility. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

##### Eye/face protection

Protective goggles.

##### Skin protection

When handling in long-term or repeatedly, use protective gloves.

##### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

##### Thermal hazard

Not available.

##### Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

### SECTION 9: Physical and chemical properties

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

|  |                            |
|--|----------------------------|
| Physical state   | solid                      |
| Colour   | white                      |
| Odour  | without fragrance          |
| Melting point/freezing point                             | data not available         |
| Boiling point or initial boiling point and boiling range | data not available         |
| Flammability   | non-flammable              |
| Lower and upper explosion limit                          | not applicable             |
| Flash point  | not applicable             |
| Auto-ignition temperature                                | not applicable             |
| Decomposition temperature                                | data not available         |
| pH   | 4.5 (5% solution at 20 °C) |
| Kinematic viscosity                                      | not applicable             |

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Solubility in water 740 g / l (20°C)  
Partition coefficient n-octanol/water (log value) data not available  
Vapour pressure not applicable  
Density and/or relative density data not available  
Relative vapour density not applicable  
Particle characteristics data not available  
Form solid: crystalline, powder

### 9.2. Other information

Bulk density 1.2 g/cm<sup>3</sup> at 20 °C  
Explosive properties The product does not have explosive properties.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The substance is non-flammable.

### 10.2. Chemical stability

The product is stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Unknown.

### 10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

### 10.5. Incompatible materials

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### 10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

No toxicological data is available for the substance.

#### Acute toxicity

Based on available data the classification criteria are not met.

| Sodium dihydrogen orthophosphate monohydrate |                  |                    |                   |               |                         |     |
|--|------------------|--------------------|-------------------|---------------|-------------------------|-----|
| Route of exposure                            | Parameter        | Method             | Value             | Exposure time | Species                 | Sex |
| Oral   | LD <sub>50</sub> | OECD 420           | >2000 mg/kg bw    | 96 hours      | Rat (Rattus norvegicus) | F   |
| Inhalation (dust/mist)                       | LC <sub>50</sub> | EPA OPP 81-3       | >0.83 mg/l of air | 4 hours       | Rat (Rattus norvegicus) | F/M |
| Dermal                                       | LD <sub>50</sub> | EPA OPPTS 870.1200 | >2000 mg/kg       | 24 hours      | Rat (Rattus norvegicus) | F/M |

#### Skin corrosion/irritation

Based on available data the classification criteria are not met.

| Sodium dihydrogen orthophosphate monohydrate |                |          |               |         |
|--|----------------|----------|---------------|---------|
| Route of exposure                            | Result         | Method   | Exposure time | Species |
| Dermal                                       | Not irritating | OECD 404 | 4 hours       | Rabbit  |

#### Serious eye damage/irritation

Data not available.

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### Respiratory or skin sensitisation

Data not available.

### Germ cell mutagenicity

Data not available.

### Carcinogenicity

Data not available.

### Reproductive toxicity

Data not available.

### Toxicity for specific target organ - single exposure

Data not available.

### Toxicity for specific target organ - repeated exposure

Data not available.

### Aspiration hazard

Data not available.

### 11.2. Information on other hazards

The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 12: Ecological information

### 12.1. Toxicity

Based on available data the classification criteria are not met.

#### Acute toxicity

| Sodium dihydrogen orthophosphate monohydrate |          |           |               |   |                  |
|--|----------|-----------|---------------|---|------------------|
| Parameter                                    | Method   | Value     | Exposure time | Species                                     | Environment      |
| LC <sub>50</sub>                             | OECD 203 | >100 mg/l | 96 hours      | Fish (Oncorhynchus mykiss)                  | Fresh water      |
| EC <sub>50</sub>                             | OECD 202 | >100 mg/l | 48 hours      | Daphnia (Daphnia magna)                     | Fresh water      |
| EC <sub>50</sub>                             | OECD 201 | >100 mg/l | 72 hours      | Algae (Scenedesmus subspicatus)             | Fresh water      |
| EC <sub>50</sub>                             |          | 1000 mg/l | 3 hours       | Microorganisms (Photobacterium phosphoreum) | Activated sludge |

### 12.2. Persistence and degradability

Data not available.

### 12.3. Bioaccumulative potential

Data not available.

### 12.4. Mobility in soil

Data not available.

### 12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

### 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100.

### 12.7. Other adverse effects

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Not available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

#### Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

#### Waste type code

06 09 99 wastes not otherwise specified

#### Packaging waste type code

06 09 00 wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes

### SECTION 14: Transport information

#### 14.1. UN number or ID number

not subject to transport regulations

#### 14.2. UN proper shipping name

not relevant

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

not relevant

#### 14.4. Packing group

not relevant

#### 14.5. Environmental hazards

not relevant

#### 14.6. Special precautions for user

Reference in the Sections 4 to 8.

#### 14.7. Maritime transport in bulk according to IMO instruments

not relevant

### 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 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the 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 as amended. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

#### 15.2. Chemical safety assessment

Not available.

### SECTION 16: Other information

#### Other important information about human health protection

The user is responsible for adherence to all related health protection regulations.

#### Key to abbreviations and acronyms used in the safety data sheet

ADR European agreement concerning the international carriage of dangerous goods by road

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|                     |   |
|---------------------|---|
| BCF                 | Bioconcentration Factor   |
| CAS                 | Chemical Abstracts Service  |
| CLP                 | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures |
| EC                  | Identification code for each substance listed in EINECS   |
| EC <sub>50</sub>    | Concentration of a substance when it is affected 50 % of the population                           |
| EINECS              | European Inventory of Existing Commercial Chemical Substances                                     |
| EmS                 | Emergency plan  |
| EU                  | European Union  |
| EuPCS               | European Product Categorisation System  |
| IATA                | International Air Transport Association   |
| IBC                 | International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals       |
| ICAO                | International Civil Aviation Organization   |
| IMDG                | International Maritime Dangerous Goods  |
| IMO                 | International Maritime Organization   |
| INCI                | International Nomenclature of Cosmetic Ingredients  |
| ISO                 | International Organization for Standardization  |
| IUPAC               | International Union of Pure and Applied Chemistry   |
| LC <sub>50</sub>    | Lethal concentration of a substance in which it can be expected death of 50% of the population    |
| LD <sub>50</sub>    | Lethal dose of a substance in which it can be expected death of 50% of the population             |
| log K <sub>ow</sub> | Octanol-water partition coefficient   |
| OEL                 | Occupational Exposure Limits  |
| PBT                 | Persistent, bioaccumulative and toxic   |
| ppm                 | Parts per million   |
| REACH               | Registration, Evaluation, Authorisation and Restriction of Chemicals                              |
| RID                 | Agreement on the transport of dangerous goods by rail   |
| UN                  | Four-figure identification number of the substance or article taken from the UN Model Regulations |
| UVCB                | Substances of unknown or variable composition, complex reaction products or biological materials  |
| VOC                 | Volatile organic compounds  |
| vPvB                | Very persistent and very bioaccumulative  |

### Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

### Recommended restrictions of use

not available

### Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.  
REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

### The changes (which information has been added, deleted or modified)

The version 1.3 replaces the SDS version from Monday, 4 September 2023. Changes were made in sections 1 and 16.

### Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.