

## Chemical Safety Data Sheet MSDS / SDS

## Diammonium hydrogenorthophosphate SDS

Revision Date:2024-04-25 Revision Number:1

|           |            |            |            |            |            |            |            |
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product identifier**

Product name: Diammonium hydrogenorthophosphate

CAS: 7783-28-0

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

Relevant identified uses: For R&amp;D use only. Not for medicinal, household or other use.

Uses advised against: none

**Company Identification**

Company: Chemicalbook.in

Address: 5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090

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**SECTION 2: Hazards identification****Classification of the substance or mixture**

Not classified.

**GHS label elements, including precautionary statements**

Signal word                      No signal word

**Hazard statement(s)**

none

**Precautionary statement(s)****Prevention**

none

**Response**

none

**Storage**

none

**Disposal**

none

**Other hazards which do not result in classification**

no data available

**SECTION 3: Composition/information on ingredients****Substance**

Chemical name:                      Diammonium hydrogenorthophosphate

Common names and  
synonyms:                      Diammonium hydrogenorthophosphate

CAS number:                      7783-28-0

EC number:                      231-987-8

Concentration:                      100%

## SECTION 4: First aid measures

### Description of necessary first-aid measures

#### If inhaled

Fresh air, rest.

#### Following skin contact

Rinse skin with plenty of water or shower.

#### Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

#### Following ingestion

Rinse mouth. Refer for medical attention .

### Most important symptoms/effects, acute and delayed

no data available

### Indication of immediate medical attention and special treatment needed, if necessary

no data available

## SECTION 5: Firefighting measures

### Suitable extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

### Specific hazards arising from the chemical

Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.

### Special protective actions for fire-fighters

In case of fire in the surroundings, use appropriate extinguishing media.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Wash away remainder with plenty of water.

### Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

### Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

## SECTION 7: Handling and storage

### Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### Conditions for safe storage, including any incompatibilities

Separated from strong oxidants, strong bases and strong acids. Keep in a well-ventilated room.

## SECTION 8: Exposure controls/personal protection

### Control parameters

### Occupational Exposure limit values

|           |                                   |                   |                          |                   |
|-----------|-----------------------------------|-------------------|--------------------------|-------------------|
| Component | Diammonium hydrogenorthophosphate |                   |                          |                   |
| CAS No.   | 7783-28-0                         |                   |                          |                   |
|           | Limit value - Eight hours         |                   | Limit value - Short term |                   |
|           | ppm                               | mg/m <sup>3</sup> | ppm                      | mg/m <sup>3</sup> |

|        |         |   |   |   |
|--------|---------|---|---|---|
| Latvia | ?       | 6 | ? | ? |
|        | Remarks |   |   |   |

#### Biological limit values

no data available

#### Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

#### Individual protection measures, such as personal protective equipment (PPE)

##### Eye/face protection

Wear safety spectacles.

##### Skin protection

Protective gloves.

##### Respiratory protection

Use local exhaust.

##### Thermal hazards

no data available

### SECTION 9: Physical and chemical properties and safety characteristics

|                                                           |                                                                   |
|-----------------------------------------------------------|-------------------------------------------------------------------|
| Physical state:                                           | Solid. Crystalline.                                               |
| Colour:                                                   | White.                                                            |
| Odour:                                                    | no data available                                                 |
| Melting point/freezing point:                             | 155 °C. Remarks:Decomp. temp not given in the handbook.;154.85°C. |
| Boiling point or initial boiling point and boiling range: | 158°C at 760 mmHg                                                 |

|                                                     |                                                                             |
|-----------------------------------------------------|-----------------------------------------------------------------------------|
| Flammability:                                       | no data available                                                           |
| Lower and upper explosion limit/flammability limit: | no data available                                                           |
| Flash point:                                        | no data available                                                           |
| Auto-ignition temperature:                          | no data available                                                           |
| Decomposition temperature:                          | no data available                                                           |
| pH:                                                 | Ca. 8. Remarks:No temperature or concentration mentioned in the handbook.   |
| Kinematic viscosity:                                | no data available                                                           |
| Solubility:                                         | In water: 588 g/L. pH:Ca. 8. Remarks:Temperature not given in the handbook. |
| Partition coefficient n-octanol/water:              | no data available                                                           |
| Vapour pressure:                                    | 0.076 Pa. Temperature:20 °C.                                                |
| Density and/or relative density:                    | 1.619 g/cm <sup>3</sup> .                                                   |
| Relative vapour density:                            | no data available                                                           |
| Particle characteristics:                           | no data available                                                           |

## SECTION 10: Stability and reactivity

### Reactivity

no data available

### Chemical stability

no data available

#### **Possibility of hazardous reactions**

Decomposes above 100°C . Decomposes on contact with strong bases. This produces toxic and corrosive fumes including ammonia, nitrogen oxides and phosphorus oxides. The solution in water is a weak base. Reacts vigorously with strong acids and strong oxidants. Gradually gives off ammonia on exposure to air.

#### **Conditions to avoid**

no data available

#### **Incompatible materials**

no data available

#### **Hazardous decomposition products**

no data available

### **SECTION 11: Toxicological information**

#### **Acute toxicity**

Oral: no data available

Inhalation: LC50 - rat (male/female) - > 5 mg/L air.

Dermal: no data available

#### **Skin corrosion/irritation**

no data available

#### **Serious eye damage/irritation**

no data available

#### **Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

no data available

**Reproductive toxicity**

no data available

**STOT-single exposure**

The substance is irritating to the eyes.

**STOT-repeated exposure**

no data available

**Aspiration hazard**

Evaporation at 20°C is negligible; a nuisance-causing concentration of airborne particles can, however, be reached quickly when dispersed, especially if powdered.

**SECTION 12: Ecological information****Toxicity**

Toxicity to fish: LC50 - *Oncorhynchus mykiss* (previous name: *Salmo gairdneri*) - > 100 mg/L - 96 h.

Toxicity to daphnia and other aquatic invertebrates: EC50 - *Daphnia magna* - > 100 mg/L - 48 h.

Toxicity to algae: EC50 - *Pseudokirchneriella subcapitata* (previous names: *Raphidocelis subcapitata*, *Selenastrum capricornutum*) - > 100 mg/L - 72 h.

Toxicity to microorganisms: EC50 - activated sludge of a predominantly domestic sewage - > 100 mg/L - 3 h. Remarks: Respiration rate.

**Persistence and degradability**



no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**Other adverse effects**

no data available

## SECTION 13: Disposal considerations

**Disposal methods**

**Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

**Contaminated packaging**

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

## SECTION 14: Transport information

**UN Number**

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

**UN Proper Shipping Name**

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)  
IATA: Not dangerous goods. (For reference only, please check.)

#### **Transport hazard class(es)**

ADR/RID: Not dangerous goods. (For reference only, please check.)  
IMDG: Not dangerous goods. (For reference only, please check.)  
IATA: Not dangerous goods. (For reference only, please check.)

#### **Packing group, if applicable**

ADR/RID: Not dangerous goods. (For reference only, please check.)  
IMDG: Not dangerous goods. (For reference only, please check.)  
IATA: Not dangerous goods. (For reference only, please check.)

#### **Environmental hazards**

ADR/RID: No  
IMDG: No  
IATA: No

#### **Special precautions for user**

no data available

#### **Transport in bulk according to IMO instruments**

no data available

### **SECTION 15: Regulatory information**

**Safety, health and environmental regulations specific for the product in question**

**European Inventory of Existing Commercial Chemical Substances (EINECS)**

Listed.

**EC Inventory**

Listed.

**United States Toxic Substances Control Act (TSCA) Inventory**

Listed.

**China Catalog of Hazardous chemicals 2015**

Not Listed.

**New Zealand Inventory of Chemicals (NZIoC)**

Listed.

**(PICCS)**

Listed.

**Vietnam National Chemical Inventory**

Listed.

**IECSC)**

Listed.

**Korea Existing Chemicals List (KECL)**

Listed.

**SECTION 16: Other information**

**Abbreviations and acronyms**

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

### References

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:  
[http://www.echemportal.org/echemportal/index?pagelD=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pagelD=0&request_locale=en)

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:  
<http://www.phmsa.dot.gov/hazmat/library/erg>

Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any