

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 07/09/2024

Reviewed on 07/08/2024

### 1 Identification

- **Product identifier**
- **Trade name:** Diphenylphosphinic chloride
- **Article number:** 131880
- **CAS Number:**  
1499-21-4
- **EC number:**  
216-107-2
- **Application of the substance / the mixture** Laboratory chemicals for research and development
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
BeanTown Chemical  
9 Sagamore Park Road  
Hudson, NH 03051  
USA
- 
- Phone: (603) 402-2234  
Fax: (603) 402-9713  
Email: [technical@beantownchem.com](mailto:technical@beantownchem.com)  
[www.beantownchem.com](http://www.beantownchem.com)
- **Information department:** Technical Support Department
- **Emergency telephone number:**  
During normal operating hours, please call (603) 402-2234  
After hours, please call Chemtrec at (800) 424-9300

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS05 Corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

- **Label elements**
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
diphenylphosphinic chloride

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2024

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(Contd. of page 1)

- **Hazard statements**

- Flammable liquid and vapor.

- Causes severe skin burns and eye damage.

- **Precautionary statements**

- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

- Continue rinsing.

- Immediately call a poison center/doctor.

- Specific treatment (see on this label).

- Store locked up.

- Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description**

- 1499-21-4 diphenylphosphinic chloride

- **Identification number(s)**

- **EC number:** 216-107-2

## 4 First-aid measures

- **Description of first aid measures**

- **General information:** Immediately remove any clothing soiled by the product.

- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

- No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **Special hazards arising from the substance or mixture**

- During heating or in case of fire poisonous gases are produced.

- **Advice for firefighters**

- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

- Mount respiratory protective device.

(Contd. on page 3)

# Safety Data Sheet

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Printing date 07/09/2024

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Trade name: **Diphenylphosphinic chloride**

(Contd. of page 2)

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **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 disposal information.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

Substance is not listed.

· **PAC-2:**

Substance is not listed.

· **PAC-3:**

Substance is not listed.

## 7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

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

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** Keep receptacle tightly sealed.

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

## 8 Exposure controls/personal protection

· **Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:** Not required.

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

(Contd. on page 4)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 07/09/2024

Reviewed on 07/08/2024

**Trade name: Diphenylphosphinic chloride**

(Contd. of page 3)

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **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 goggles

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

|                 |                 |
|-----------------|-----------------|
| Form:           | Liquid          |
| Color:          | Not determined. |
| Odor:           | Characteristic  |
| Odor threshold: | Not determined. |

· **pH-value:** Not determined.

· **Change in condition**

|                              |                   |
|------------------------------|-------------------|
| Melting point/Melting range: | Undetermined      |
| Boiling point/Boiling range: | 222 °C (431.6 °F) |

· **Flash point:** 26 °C (78.8 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

|        |                 |
|--------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 1.24 g/cm<sup>3</sup> (10.3478 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2024

Reviewed on 07/08/2024

Trade name: Diphenylphosphinic chloride

(Contd. of page 4)

- |                                                   |                                            |
|---------------------------------------------------|--------------------------------------------|
| · <b>Solubility in / Miscibility with Water:</b>  | Not miscible or difficult to mix.          |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| · <b>Viscosity:</b>                               |                                            |
| <b>Dynamic:</b>                                   | Not determined.                            |
| <b>Kinematic:</b>                                 | Not determined.                            |
| <b>VOC content:</b>                               | 0.00 %<br>0.0 g/l / 0.00 lb/gal            |
| <b>Solids content:</b>                            | 0.0 %                                      |
| · <b>Other information</b>                        | No further relevant information available. |

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:**  
Strong caustic effect.  
Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.

(Contd. on page 6)

# Safety Data Sheet

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Printing date 07/09/2024

Reviewed on 07/08/2024

Trade name: *Diphenylphosphinic chloride*

(Contd. of page 5)

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 1 (Self-assessment): slightly hazardous for water*  
*Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*  
*Must not reach bodies of water or drainage ditch undiluted or unneutralized.*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
*Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

|                                       |                                                                    |
|---------------------------------------|--------------------------------------------------------------------|
| · <b>UN-Number</b>                    |                                                                    |
| · <b>DOT, IMDG, IATA</b>              | UN2920                                                             |
| · <b>UN proper shipping name</b>      |                                                                    |
| · <b>DOT</b>                          | Corrosive liquids, flammable, n.o.s. (Diphenylphosphinic chloride) |
| · <b>IMDG, IATA</b>                   | CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Diphenylphosphinic chloride)  |
| · <b>Transport hazard class(es)</b>   |                                                                    |
| · <b>DOT</b>                          |                                                                    |
| · <b>Class</b>                        | 8 Corrosive substances                                             |
| · <b>Label</b>                        | 8, 3                                                               |
| · <b>IMDG</b>                         |                                                                    |
| · <b>Class</b>                        | 8 Corrosive substances                                             |
| · <b>Label</b>                        | 8/3                                                                |
| · <b>IATA</b>                         |                                                                    |
| · <b>Class</b>                        | 8 Corrosive substances                                             |
| · <b>Label</b>                        | 8 (3)                                                              |
| · <b>Packing group</b>                |                                                                    |
| · <b>DOT, IMDG, IATA</b>              | II                                                                 |
| · <b>Environmental hazards:</b>       |                                                                    |
| · <b>Marine pollutant:</b>            | No                                                                 |
| · <b>Special precautions for user</b> | Warning: Corrosive substances                                      |
| · <b>EMS Number:</b>                  | F-E,S-C                                                            |

(Contd. on page 7)

# Safety Data Sheet

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Trade name: Diphenylphosphinic chloride

(Contd. of page 6)

|                                                                                   |                                                                                                                 |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| · <b>Stowage Category</b>                                                         | E                                                                                                               |
| · <b>Stowage Code</b>                                                             | SW1 Protected from sources of heat.<br>SW2 Clear of living quarters.                                            |
| · <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | Not applicable.                                                                                                 |
| · <b>Transport/Additional information:</b>                                        |                                                                                                                 |
| · <b>DOT</b>                                                                      |                                                                                                                 |
| · <b>Quantity limitations</b>                                                     | On passenger aircraft/rail: 1 L<br>On cargo aircraft only: 30 L                                                 |
| · <b>IMDG</b>                                                                     |                                                                                                                 |
| · <b>Limited quantities (LQ)</b>                                                  | 1L                                                                                                              |
| · <b>Excepted quantities (EQ)</b>                                                 | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>UN "Model Regulation":</b>                                                   | UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S.<br>(DIPHENYLPHOSPHINIC CHLORIDE), 8 (3), II                         |

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

· **TSCA (Toxic Substances Control Act):**

Substance is not listed.

· **Hazardous Air Pollutants**

Substance is not listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

(Contd. on page 8)

US

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 07/09/2024

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**Trade name: Diphenylphosphinic chloride**

(Contd. of page 7)

**· TLV (Threshold Limit Value)**

Substance is not listed.

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

**· RTECS**

Substance is not listed.

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

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**· NFPA ratings (scale 0-4)**

Health = 3

Fire = 3

Reactivity = 0

**· HMIS ratings (scale 0-4)**

Health = \*3

Fire = 3

Reactivity = 0

**· Department issuing SDS:** Technical Support Department

**· Contact:** Technical Support Department

**· Date of preparation / last revision** 07/09/2024 / -

**· Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 3: Flammable liquids – Category 3

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

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