## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 17.07.2021

CHEMICALS, INC

Revision: 17.07.2021

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

- · 1.1 Product identifier
- Trade name: Bis{[2-(Diadamantylphosphino)-3-methoxy-2',4',6'-tri-i-propyl-3'-(2,3,5,6-tetrafluoro-4butylphenyl)-1,1'-biphenyl]palladium(0)}1,5-cyclooctadiene, [AlPhos Palladium complex]
- Item number: 46-0241
- · CAS Number:
- 1805783-51-0
- 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- $\cdot$  1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Strem Chemicals, Inc.
  7 Mulliken Way NEWBURYPORT, MA 01950 USA info@strem.com
- · Further information obtainable from: Technical Department
- 1.4 Emergency telephone number: EMERGENCY: CHEMTREC: + 1 (800) 424-9300 During normal opening times: +1 (978) 499-1600

## **SECTION 2: Hazards identification**

| · Classification | on of the substance or mixture<br>according to Regulation (EC) No 1272/2008<br>is not classified according to the CLP regulation.     |
|------------------|---|
| · 2.2 Label elem | ents  |
| · Labelling acco | rding to Regulation (EC) No 1272/2008 Void  |
| · Hazard pictogr | rams Void   |
| · Signal word Vo | pid   |
| · Hazard statem  | ents Void   |
| · Precautionary  | statements  |
| P231             | Handle under inert gas.   |
| P262             | Do not get in eyes, on skin, or on clothing.  |
| P305+P351+P      | 2338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P403+P233        | Store in a well-ventilated place. Keep container tightly closed.  |
| P422             | Store contents under inert gas.   |
| P501             | Dispose of contents/container in accordance with local/regional/national/international  |
|                  | regulations.  |
| · 2.3 Other haza | 0   |
| · Results of PBT | and vPvB assessment   |

- · **PBT:** Not applicable.
- **vPvB:** Not applicable.

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

- · 3.1 Chemical characterisation: Substances
- · CAS No. Description

(Contd. on page 2)

GB –

# HEMICALS, INC.

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 17.07.2021

Revision: 17.07.2021

Trade name: Bis{[2-(Diadamantylphosphino)-3-methoxy-2',4',6'-tri-i-propyl-3'-(2,3,5,6-tetrafluoro-4butylphenyl)-1,1'-biphenyl]palladium(0)}1,5-cyclooctadiene, [AlPhos Palladium complex]

(Contd. of page 1)

1805783-51-0 Bis{[2-(Diadamantylphosphino)-3-methoxy-2',4',6'-tri-ipropyl-3'-(2,3,5,6-tetrafluoro-4-butylphenyl)-1,1'biphenyl]palladium(0)}1,5-cyclooctadiene, [AlPhos Palladium complex]

## **SECTION 4: First aid measures**

• 4.1 Description of first aid measures

· General information: No special measures required.

• After inhalation: Supply fresh air; consult doctor in case of complaints.

- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 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: Use fire extinguishing methods suitable to surrounding conditions.
- · 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

#### **SECTION 6:** Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- · 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- $\cdot$  6.3 Methods and material for containment and cleaning up:
- Dispose contaminated material as waste according to item 13.
- 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 disposal information.

## **SECTION 7: Handling and storage**

- 7.1 Precautions for safe handling No special measures required. Open and handle receptacle with care.
- Handling: Handle under inert gas.
- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage: Store contents under inert gas.
- 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: None.

(Contd. on page 3)

<sup>-</sup> GB

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 17.07.2021

Revision: 17.07.2021

Trade name: Bis{[2-(Diadamantylphosphino)-3-methoxy-2',4',6'-tri-i-propyl-3'-(2,3,5,6-tetrafluoro-4butylphenyl)-1,1'-biphenyl]palladium(0)}1,5-cyclooctadiene, [AlPhos Palladium complex]

(Contd. of page 2)

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

#### **SECTION 8: Exposure controls/personal protection**

· Additional information about design of technical facilities: No further data; see item 7.

- · 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:
- The usual precautionary measures are to be adhered to when handling chemicals.
- · Respiratory protection: Not required.
- · 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: Safety glasses

| • 9.1 Information on basic physical and ch                                | nemical properties                            |
|---|---|
| • General Information<br>• Appearance:                                    |   |
| Form:   | Solid   |
| Colour:   | Yellowish                                     |
| · Odour:  | Characteristic                                |
| · Odour threshold:  | Not determined.                               |
| · pH-value:   | Not applicable.                               |
| · Change in condition   | <i></i>                                       |
| Melting point/freezing point:<br>Initial boiling point and boiling range: | Undetermined.<br>Undetermined.                |
| · Flash point:  | Not applicable.                               |
| · Flammability (solid, gas):  | Product is not flammable.                     |
| · Ignition temperature:   |   |
| Decomposition temperature:  | Not determined.                               |
| · Auto-ignition temperature:  | Not determined.                               |
| · Explosive properties:   | Product does not present an explosion hazard. |
|   | (Contd. on page 4                             |



GB



## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 17.07.2021

Revision: 17.07.2021

#### Trade name: Bis{[2-(Diadamantylphosphino)-3-methoxy-2',4',6'-tri-i-propyl-3'-(2,3,5,6-tetrafluoro-4butylphenyl)-1,1'-biphenyl]palladium(0)}1,5-cyclooctadiene, [AlPhos Palladium complex]

|   | (Contd. of page                            |
|---|--|
| · Explosion limits:                       |  |
| Lower:                                    | Not determined.                            |
| Upper:                                    | Not determined.                            |
| · Vapour pressure:                        | Not applicable.                            |
| · Density:                                | Not determined.                            |
| · Relative density                        | Not determined.                            |
| · Vapour density                          | Not applicable.                            |
| · Evaporation rate                        | Not applicable.                            |
| · Solubility in / Miscibility with        |  |
| water:                                    | Insoluble.                                 |
| · Partition coefficient: n-octanol/water: | Not determined.                            |
| · Viscosity:                              |  |
| Dynamic:                                  | Not applicable.                            |
| Kinematic:                                | Not applicable.                            |
| · Solvent content:                        |  |
| Organic solvents:                         | 0.0 %                                      |
| VÕC (EC)                                  | 0.00 %                                     |
| · 9.2 Other information                   | No further relevant information available. |

## **SECTION 10: Stability and reactivity**

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

## **SECTION 11: Toxicological information**

- · 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.
- · Primary irritant effect:
- · 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 sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- $\cdot \textit{ Germ cell mutagenicity Based on available data, the classification criteria are not met.}$
- $\cdot$  Carcinogenicity Based on available data, the classification criteria are not met.
- $\cdot$  **Reproductive toxicity** Based on available data, the classification criteria are not met.
- $\cdot$  STOT-single exposure Based on available data, the classification criteria are not met.
- $\cdot$  **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.

(Contd. on page 5)

# CHEMICALS, INC.

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 17.07.2021

Revision: 17.07.2021

Trade name: Bis{[2-(Diadamantylphosphino)-3-methoxy-2',4',6'-tri-i-propyl-3'-(2,3,5,6-tetrafluoro-4butylphenyl)-1,1'-biphenyl]palladium(0)}1,5-cyclooctadiene, [AlPhos Palladium complex]

(Contd. of page 4)

#### **SECTION 12: Ecological information**

#### · 12.1 Toxicity

- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:
- Water hazard class 1 (German Regulation) (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.

- · 12.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

## **SECTION 13: Disposal considerations**

- · 13.1 Waste treatment methods
- · Recommendation Disposal must be made according to official regulations.
- · Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

| 14.1 UN-Number<br>ADR, ADN, IMDG, IATA               | not regulated   |  |
|--|-----------------|--|
| 14.2 UN proper shipping name<br>ADR, ADN, IMDG, IATA | not regulated   |  |
| 14.3 Transport hazard class(es)                      |                 |  |
| ADR, ADN, IMDG, IATA                                 |                 |  |
| Class  | not regulated   |  |
| 14.4 Packing group                                   |                 |  |
| ADR, IMDG, IATA                                      | not regulated   |  |
| 14.5 Environmental hazards:                          | Not applicable. |  |
| 14.6 Special precautions for user                    | Not applicable. |  |
| 14.7 Transport in bulk according to Ann              | nex II of       |  |
| Marpol and the IBC Code                              | Not applicable. |  |
| UN "Model Regulation":                               | not regulated   |  |

(Contd. on page 6)

# HEMICALS, INC.

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 17.07.2021

Revision: 17.07.2021

Trade name: Bis{[2-(Diadamantylphosphino)-3-methoxy-2',4',6'-tri-i-propyl-3'-(2,3,5,6-tetrafluoro-4butylphenyl)-1,1'-biphenyl]palladium(0)}1,5-cyclooctadiene, [AlPhos Palladium complex]

(Contd. of page 5)

GF

# SECTION 15: Regulatory information

 $\cdot$  15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I Substance is not listed.

· National regulations:

- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## **SECTION 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.

- · Department issuing SDS: Technical Department.
- · Contact: Technical Director
- · 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 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