# SAFETY DATA SHEET

# fluorochem.

## 1. Identification of Substance / Mixture

#### **Product Identifier**

**1.1.2 Product Name** Bis(dibenzylideneacetone)palladium(0)

1.1.2 Other Names

 1.1.1 Product Code
 F046135

 1.1.3 CAS
 32005-36-0

 1.1.4 MDL
 MFCD00051942

 1.1.5 EINECS
 608-691-6

1.1.6 REACH Registration Number

**1.2.1 Relevant Uses** For research and development purposes only.

**1.2.2 Uses Advised Against** No uses advised against.

## 1.3 Supplier Details

**1.3.1 Company** Fluorochem Ltd

**1.3.2 Address** Unit 14, Graphite Way

Hadfield

Glossop Derbys. SK13 1QH

United Kingdom 01457 860111

 1.3.3 Telephone
 01457 860111

 1.3.4 Email
 sds@fluorochem.co.uk

**1.4.1 Emergency Telephone** +44 20 3807 3798

### 2. Hazards Identification

2.1.1 Classification

Eye Irrit. 2A Skin Irrit. 2 Skin Sens. 1 STOT SE 3

2.2.1 Signal Word

Warning

2.2.2 Pictograms



GHS07

2.2.3 Hazards

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

#### 2.2.4 Precautions

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

**P272** Contaminated work clothing should not be allowed out of the workplace. **P280.4** Wear protective gloves/protective clothing and eye/face protection.

P302+P352.1 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P312.1 Call a POISON CENTER/doctor if you feel unwell. P321 Specific treatment.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse. P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

#### 2.2.5 Other Classification Hazards

# 3. Composition of Ingredients

SUBSTANCE

3.1.1 Name 3.1.2 CAS Einecs 3.1.3 Composition Hazards

Bis(dibenzylideneacetone) 32005-36-0 608-691-6 palladium(0)

H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2A H335 STOT SE 3

#### 4. First Aid Measures

4.1.1 Eye contact Where Diphoterine is not available, rinse eyes with copious amounts of water for at least 20 minutes. Protect

uninjured eye. Remove contact lenses if present and easy to do. Continue rinsing and seek immediate medical

attention.

4.1.2 Ingestion If swallowed rinse the mouth with plenty of water (only if the person is conscious) and contact a poison centre or

physician if you feel unwell.

**4.1.3 Inhalation**Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer

artificial respiration and seek immediate medical attention.

4.1.4 Skin Contact After contact with skin, wash immediately with plenty of water and soap. Remove contaminated clothing immediately.

In case of skin reactions, consult a physician.

**4.1.5 General Advice** No additional advice.

**4.2.1 Most Important Symptoms and Effects** No known symptoms or effects.

4.3.1 Immediate First Aid Measures No special immediate treatment required

#### 5. Fire Fighting Measures

5.1.1 Suitable Fire Extinguishing Media Carbon dioxide, alcohol resistant foam or dry chemical powder. Use water to extinguish fire.

**5.1.2 Unsuitable Fire Extinguishing Media** No known unsuitable media.

5.2.1 Special Hazards Thermal decomposition can lead to release of irritating gases and vapours.
 5.3.1 Advice for Fire Fighters As in any fire, wear self-contained breathing apparatus and full protective gear.

#### 6. Accidental Release Measures

**6.1.1 Personal Precautions**Use personal protective equipment. Ensure Hexafluorine washing solution is to hand. Avoid dust formation. Avoid

breathing vapours, mist or gas. Ensure adequate ventilation. Keep personnel away from spill/leak.

**6.2.1 Environmental Precautions**Prevent further leakage if safe to do so. Prevent product from entering drains. Do not let product enter waterways or

sewer systems. Discharge into the environment must be avoided.

**6.3.1 Containment - Methods and Materials**Absorb the spilled material with an inert absorbent (e.g. sand, silica gel, rag, vermiculite) before transferring into an airtight container. Remove all sources of ignition. Dispose of appropriately according to local regulations.

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**6.4.1 Referenced SDS Sections** For personal protection see section 8. For disposal see section 13

## 7. Handling and Storage

#### **Personal Precautions**

7.1.1 Safe Handling Wear appropriate personal protective equipment. Use only under a chemical fume hood. Keep away from heat/

sparks/open flame/hot surfaces. Take measures to prevent the build-up of electrostatic charge. Ensure adequate exhaust ventilation, especially if dust, aerosol or fumes will be generated. Avoid contact with skin, eyes and clothing.

For precautions see section 2.2.

7.1.2 Protection Against Explosion and Fire

7.1.3 General Occupational Hygiene

Where possible, use anti static and spark proof equipment when handling.

Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after use. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

#### Conditions for Safe Storage and Incompatabilities

7.2.1 Managing Storage Risks Keep container tightly closed and upright. Store in a cool, dry and well-ventilated place.

7.2.2 Storage Controls
 Keep container tightly closed in a cool area away from sunlight or heat sources.
 7.2.3 Maintaining Integrity
 Keep container tightly closed in a cool area away from sunlight or heat sources.

7.2.4 Other Advice No other specific advice available.

7.3.1 Specific End Use(s)

No specific end uses are advised. The products supplied are for research purposes only.

# 8. Exposure Controls / Personal Protection

8.1.1 Control Parameters

8.2.1 Engineering Measures Use only under a chemical fume hood ensuring adequate ventilation, especially in confined areas. Ensure

Hexafluorine washing solution is close to workstation. Use explosion-proof electrical/ventilating/lighting/equipment.

Ensure that eyewash stations and safety showers are close to the workstation location.

**8.2.2 Face Protection** Wear tightly fitting safety goggles which adhere to European standard EN 166. Ensure Hexafluorine eye wash is to

hand

8.2.3 Hand Protection Handle with impermeable gloves. Inspect gloves before use. Gloves must satisfy the specifications of EU Directive

89/686/EEC and the standard EN374 derived from it. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with

applicable laws and good laboratory practices. Wash and dry hands.

**8.2.4 Skin Protection**Wear appropriate protective clothing ensuring all skin is covered. Wear safety shoes that meet at least S1 standards.

Ensure Hexafluorine washing solution is to hand. The type of protective equipment must be selected according to the

concentration and amount of the dangerous substance at the specific workplace.

**8.2.5 Respiratory Protection** Product should be handled in a fume cupboard with adequate extraction. No respiratory equipment is needed under normal use conditions.

normal use conditions

**8.2.6 Hygiene Protection** Ensure hair or skin particles cannot enter the chemical container.

**8.2.7 Environment Exposure Controls** Avoid discharge into the environment, see section 6.2.

#### 9. Physical and Chemical Properties

9.1.1 State Solid

9.1.2 AppearanceNo data available.9.1.3 OdourNo data available.9.1.4 Odour ThresholdNo data available.9.1.5 pHNo data available.

**9.1.6 Melting Point / Freezing Point** 150°C

9.1.7 Initial Boiling Point

9.1.8 Boiling Range

9.1.9 Flash Point

9.1.10 Evaporation Rate

9.1.11 Flammability

9.1.12 Upper / Lower Flammability or

No data available.

**Explosion Limits** 

 9.1.13 Vapour Pressure
 No data available.

 9.1.14 Vapour Density
 No data available.

 9.1.15 Relative Density
 No data available.

9.1.16 Solubility

 9.1.17 Partition Coefficient
 No data available.

 9.1.18 Auto Ignition Temperature
 No data available.

 9.1.19 Decomposition Temperature
 No data available.

 9.1.20 Viscosity
 No data available.

 9.1.21 Explosive Properties
 No data available.

 9.1.22 Oxidising Properties
 No data available.

**9.2.1 Other information** No additional information available

### 10. Stability and Reactivity

**10.1.1 Reactivity**No known reactivity, based on information available

10.2.1 Stability Stable under recommended storage conditions.

10.3.1 Possibility of Hazardous Reactions None under normal storage conditions.

10.4.1 Conditions To Avoid Heat, sparks, open flames, sources of ignition. Exposure to moisture.

10.5.1 Incompatible Materials Strong oxidising agents.

10.6.1 Hazardous Decomposition Products No Data Available.

## 11. Toxicology Information

 11.1.1 Acute Toxicity
 No Toxicology data available for this product.

 11.1.2 Skin Corrosion / Irritation
 No Toxicology data available for this product.

 11.1.3 Serious Eye Damage / Irritation
 No Toxicology data available for this product.

**11.1.4 Respiratory or Skin Sensitisation** May cause an allergic skin reaction.

11.1.5 Germ Cell Mutagenicity
No Toxicology data available for this product.

11.1.6 Carcinogenicity
No Toxicology data available for this product.

11.1.7 Reproductive Toxicity
No Toxicology data available for this product.

11.1.8 STOT-single Exposure
No Toxicology data available for this product.

11.1.9 STOT-repeated Exposure
No Toxicology data available for this product.

11.1.10 Aspiration Hazard
No Toxicology data available for this product.

11.2.1 Additional Toxicology Information
No Toxicology data available for this product.

### 12. Ecological Information

12.1.1 Toxicity

No Ecological data available for this product.

12.2.1 Persistence and Degradability

No Ecological data available for this product.

12.3.1 Bio-Accumulative Potential

No Ecological data available for this product.

12.4.1 Mobility in Soil

No Ecological data available for this product.

12.5.1 Results of PBT and vPvB assessment

No Ecological data available for this product.

12.7.1 Endocrine Disrupting Properties

No Ecological data available for this product.

No Ecological data available for this product.

No Ecological data available for this product.

#### 13. Disposal Considerations

13.1.1 Disposal Operations Ensure product is disposed of by licensed waste carriers.

13.1.2 Disposal of Packaging Ensure INNER PACKAGING is disposed of by licensed waste carriers. Some OUTER PACKAGING MAY be

recyclable if not contaminated.

# 14. Transport Information

IATA UN Number ADR UN Number IMDG UN Number

14.1.2 IATA Proper(Bis(dibenzylideneacetone)<br/>Shipping NameADR Proper Shipping<br/>NameNon Hazardous For<br/>Transport (BisIMDG Proper Shipping<br/>Name(Bis(dibenzylideneacetone)<br/>palladium(0))

(dibenzylideneacetone)

ADR Sub Class

ADR Packing Group

ADR Hazard Class

IMDG Packing Group

IMDG Hazard Class

**IMDG Sub Class** 

15. Regulatory Information

15.1.1 Regulatory Information As far as Fluorochem is aware, there are no further regulations controlling this product.

**15.2.1 Chemical Safety** No Chemical Safety Assessment is available for this product.

Assessment

**IATA Packing Group** 

14.1.4 IATA Hazard Class

14.1.5 IATA Sub Class

#### 16. Other Information

#### 16.1.2 Information Not Covered in Other Sections

ADR: Accord Europeen sur le transport des merchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)

RID:Reglement International concernant le transport des merchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association ICAO:International Civil

Aviation Organization

ICAO-TI: Technical Instructions by the ICAO

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS:Chemical Abstracts Service

Revision

**Date Modified** 

16.1.1 Disclaimer

Mar 14, 2023 11:59:00 AM

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user. This SDS adheres to Regulation (EC) No 1907/2006, and as of 13th April 2023, also conforms to EU Regulation 2020/878.