Safety Data Sheet

according to Regulation (EC) No 1907/2006



Palladium Bath JE42 V/D

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

1.1. Product identifier

Palladium Bath JE42 V/D

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Plating agents and metal surface treating agents

1.3. Details of the supplier of the safety data sheet

Company name: Jentner Plating Technology GmbH

Street: Johann-Staib-Strasse 2
Place: D-75179 Pforzheim

Telephone: +49 (0)7231 418094 0 Telefax: +49 (0)7231 418094 77

e-mail: info@jentner.de

Contact person: Department of Chemistry

Internet: www.jentner.de

Responsible Department: Poison Information Center of the University of Freiburg.

1.4. Emergency telephone 0049 (0)761 19240 - 24 h german and english

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard statements

H315 Causes skin irritation. H319 Causes serious eye irritation.

Precautionary statements

P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves and eye/face protection.

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

present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of water.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

2.3. Other hazards

P302+P352

The product is due to our present information no hazardous material as defined by the current valid laws.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Inorganic compounds, aqueous solution containing palladium.

Further Information

The product is due to our present information no hazardous material as defined by the current valid laws.

SECTION 4: First aid measures

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4.1. Description of first aid measures

After inhalation

Provide fresh air.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Let water be drunken in little sips (dilution effect).

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Treat the recovered material as prescribed in the section on waste disposal. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

General Precautions for safe handling of chemicals.

Advice on protection against fire and explosion

The product itself does not burn.

7.2. Conditions for safe storage, including any incompatibilities

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Requirements for storage rooms and vessels

Keep container tightly closed. Store in a well-ventilated place. Keep container tightly closed.

Hints on joint storage

No special measures are necessary.

7.3. Specific end use(s)

Plating agents and metal surface treating agents

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

No substance related limit value derivable.

8.2. Exposure controls



Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink. When using do not eat, drink, smoke, sniff.

Eye/face protection

Wear eye protection/face protection. Safety glases.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Wear suitable gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Do not breathe gas/fumes/vapour/spray.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid

Colour: bright green -yellow Odour: like ammonia

pH-Value (at 20 °C): 7-8

Changes in the physical state

Melting point: not determined Sublimation point: not determined

Flammability

Solid: not applicable
Gas: not applicable

Explosive properties

not explosive.

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Lower explosion limits: Upper explosion limits:

Auto-ignition temperature

Solid: not applicable
Gas: not applicable
Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Density (at 20 °C): 1,06 g/cm³ Water solubility: highly soluble.

Solubility in other solvents

not determined

Partition coefficient:

Vapour density:

Evaporation rate:

Solvent separation test:

not determined
not determined
not determined
not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

In case of appropriate treatment and warehousing are no dangerous reactions common.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Ammonia

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

Toxicological data are not available.

Irritation and corrosivity

Causes serious eye irritation.

Causes skin irritation.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

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Additional information on tests

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.2. Persistence and degradability

not determined

12.3. Bioaccumulative potential

not determined

12.4. Mobility in soil

not determined

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation. For the recovery of precious metals in accordance with local regulations feeding into a recycling process.

Waste disposal number of waste from residues/unused products

110112 W

WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); aqueous rinsing liquids other than those mentioned in 11 01 11

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled. Contaminated packages must be completely emptied and can be re-used following proper cleaning.

SECTION 14: Transport information

Land transport (ADR/RID)

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

Water contaminating class (D): 2 - clearly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

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 Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H315 Causes skin irritation. H319 Causes serious eye irritation.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)