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

1.1. Product identifier

Product form: Mixture
Product name: PAL 5, 10, 15, 25, Pure Palladium (Solid and CT-1, V-ST(S) Pastes)
Product code: PAL 5, 10, 15, 25, Pure Palladium (Solid and CT-1, V-ST(S) Pastes)
Type of product: Alloy

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

1.2.1. Relevant identified uses

Main use category: Professional use
Industrial/Professional use spec: For professional use only
Use of the substance/mixture: Brazing
Function or use category: Welding, cutting, heating and brazing.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

The Prince & Izant Companies
12999 Plaza Drive
44130 Cleveland, Ohio - USA
T 001-216-362-7000 - F 001-216-362-7456
support@princeizant.com - www.princeizant.com

1.4. Emergency telephone number

Emergency number: Global: +44 1865 407333 (NCEC)
USA: +1 202 464 2554 (NCEC)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Child-resistant fastening: No
Tactile warning: No

2.3. Other hazards

Adverse physicochemical, human health and environmental effects: To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver substance with a Community workplace exposure limit</td>
<td>(CAS No) 7440-22-4 (EC no) 231-131-3</td>
<td>&lt; 80</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16
SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: Get medical advice/attention if you feel unwell.

First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.

First-aid measures after skin contact: Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If large quantities are ingested, seek medical advice/attention.

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

Symptoms/injuries after inhalation: May cause respiratory irritation.

Symptoms/injuries after skin contact: Repeated or prolonged contact may cause slight irritation to the skin.

Symptoms/injuries after eye contact: Dust from this product may cause eye irritation.

Symptoms/injuries after ingestion: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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: Dry powder. Use extinguishing media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard: The product is not flammable.

Explosion hazard: Product is not explosive.

Reactivity in case of fire: Not known.

Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire: No special measures required.

Firefighting instructions: Use extinguishing media appropriate for surrounding fire.

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Avoid release to the environment.

6.1.1. For non-emergency personnel

Protective equipment: Wear suitable protective clothing, gloves and eye or face protection.

Emergency procedures: Ventilate spillage area. Avoid contact with eyes. Do not breathe dust, fume.

Measures in case of dust release: Where excessive dust may result, use approved respiratory protection equipment.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: “Exposure controls/personal protection”. Avoid contact with eyes. Do not breathe Dust, Fumes.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment: Collect spillage.

Methods for cleaning up: Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

Other information: Dispose of in accordance with relevant local regulations.

6.4. Reference to other sections

For further information refer to section 8: “Exposure controls/personal protection”. For disposal of solid materials or residues refer to section 13: “Disposal considerations”.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures: Always wash hands after handling the product. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures: Ensure adequate ventilation, especially in confined areas.

Storage conditions: Store in a well-ventilated place. Keep cool.

Incompatible materials: Acetylene, ammonia, ammonium nitrate, aqua regia, dioxane, ethylene oxide, chlorine trifluoride, halogens, hydrogen peroxide, hydrazine, hydrazine, mononitrate, hydrazoic acid, hydroxylamine, hydrogen sulfide, performic acid, phosphorus, selenium, sulfur, titanium plus potassium chloride. Bromates, chlorates and iodates of alkali and alkali earth metals.

Storage area: Store in a well-ventilated place.

Packaging materials: Keep only in original container.

7.3. Specific end use(s)
Other hot work operations with metals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Silver (7440-22-4)

<table>
<thead>
<tr>
<th>EU</th>
<th>Local name</th>
<th>Silver, metallic</th>
</tr>
</thead>
<tbody>
<tr>
<td>IU</td>
<td>IOELV TWA (mg/m³)</td>
<td>0.1 mg/m³</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Ensure good ventilation of the work station.


Materials for protective clothing: Wear suitable protective clothing.

Hand protection: Protective gloves.

Eye protection: Wear tight fitting safety glasses or face shield.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state | Solid, Paste |
| Appearance | Silver-gray alloy. Metallic wire, rod, strip, paste. |
| Colour | Silver. |
| Odour | Odourless. |
| Odour threshold | No data available |
| pH | No data available |
| Relative evaporation rate (butylacetate=1) | No data available |
| Melting point | No data available |
| Freezing point | Not applicable |
| Boiling point | No data available |
| Flash point | Not applicable |
| Auto-ignition temperature | Not applicable |
| Decomposition temperature | No data available |
| Flammability (solid, gas) | Non flammable |
| Vapour pressure | No data available |
| Relative vapour density at 20 °C | No data available |
### Relative density
Not applicable

### Solubility
insoluble in water.

### Log Pow
No data available

### Viscosity, kinematic
Not applicable

### Viscosity, dynamic
No data available

### Explosive properties
Product is not explosive.

### Oxidising properties
Oxidising solids Not applicable.

### Explosive limits
Not applicable

#### 9.2 Other information
No additional information available

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2 Chemical stability
Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

#### 10.4 Conditions to avoid
None under recommended storage and handling conditions (see section 7).

#### 10.5 Incompatible materials
- Acetylene
- Ammonia
- Ammonium nitrate
- Aqua regia
- Dioxane
- Ethylene oxide
- Chlorine trifluoride
- Halogens
- Hydrogen peroxide
- Hydrazine
- Hydrazine mononitrate
- Hydrazoic acid
- Hydroxylamine
- Hydrogen sulfide
- Performic acid
- Phosphorus
- Selenium
- Sulfur
- Titanium plus potassium chlorate
- Bromates, chlorates and iodates of alkali and alkali earth metals.

#### 10.6 Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity
Not classified (Based on available data, the classification criteria are not met)

##### Skin corrosion/irritation
Not classified (Based on available data, the classification criteria are not met)

##### Serious eye damage/irritation
Not classified (Based on available data, the classification criteria are not met)

##### Respiratory or skin sensitisation
Not classified (Based on available data, the classification criteria are not met)

##### Germ cell mutagenicity
Not classified (Based on available data, the classification criteria are not met)

##### Carcinogenicity
Not classified (Based on available data, the classification criteria are not met)

##### Reproductive toxicity
Not classified (Based on available data, the classification criteria are not met)

##### Specific target organ toxicity (single exposure)
Not classified (Based on available data, the classification criteria are not met)

##### Specific target organ toxicity (repeated exposure)
Not classified (Based on available data, the classification criteria are not met)

##### Aspiration hazard
Not classified (Based on available data, the classification criteria are not met)

### SECTION 12: Ecological information

#### 12.1 Toxicity

##### Ecology - general
The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

##### Ecology - water
The product does not have any known adverse effect on the tested aquatic organisms.

#### 12.2 Persistence and degradability

| PAL 5, 10, 15, 25, Pure Palladium (Solid and CT-1, V-ST(S) Pastes) |
| Persistence and degradability |
| The product is not biodegradable. |
12.3. Bioaccumulative potential

| PAL 5, 10, 15, 25, Pure Palladium (Solid and CT-1, V-ST(S) Pastes) | Bioaccumulative potential | Not established. |

12.4. Mobility in soil

| PAL 5, 10, 15, 25, Pure Palladium (Solid and CT-1, V-ST(S) Pastes) | Ecology - soil | Not established. |

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

| Other adverse effects | None known. |
| Additional information | Avoid release to the environment |

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| Regional legislation (waste) | Disposal must be done according to official regulations. |
| Waste treatment methods | Dispose of contents/container in accordance with licensed collector’s sorting instructions. |
| Waste disposal recommendations | Dispose in a safe manner in accordance with local/national regulations. |

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

| Proper Shipping Name (ADR) | Not applicable |
| Proper Shipping Name (IMDG) | Not applicable |
| Proper Shipping Name (IATA) | Not applicable |
| Proper Shipping Name (ADN) | Not applicable |
| Proper Shipping Name (RID) | Not applicable |

14.3. Transport hazard class(es)

| ADR | Transport hazard class(es) (ADR) | Not applicable |
| IMDG | Transport hazard class(es) (IMDG) | Not applicable |
| IATA | Transport hazard class(es) (IATA) | Not applicable |
| ADN | Transport hazard class(es) (ADN) | Not applicable |
| RID | Transport hazard class(es) (RID) | Not applicable |

14.4. Packing group

| Packing group (ADR) | Not applicable |
| Packing group (IMDG) | Not applicable |
| Packing group (IATA) | Not applicable |
| Packing group (ADN) | Not applicable |
| Packing group (RID) | Not applicable |

14.5. Environmental hazards

| Dangerous for the environment | No |
| Marine pollutant | No |
| Other information | No supplementary information available |
14.6. Special precautions for user

- Overland transport
  No data available

- Transport by sea
  No data available

- Air transport
  No data available

- Inland waterway transport
  No data available

- Rail transport
  No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations
Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations
No additional information available

15.2. Chemical safety assessment
No chemical safety assessment has been carried out

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product