



Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 03/16/2007

Reviewed on 03/16/2007

1 Product Identification

- **Product Description** Bright platinum
- **Product ID#:** **BRUSHING BRIGHT PALLADIUM LUSTER** **PBC7042-H**
- **Product Use:** Coating compound/ Surface coating/ paint
- **Manufacturer/Supplier:**
Johnson Matthey Inc.
498 Acorn Lane
Downingtown, PA 19335
tel. 1 610 873-3200
fax. 1 610 873-3255
- **Information department:** Product Safety Department 1 (610) 873-3200 M-F 8am-5pm
- **Emergency information:** 1 856 384-7050

2 Composition/Data on components

- **Chemical characterization**
- **Description:**
Solution of organo(precious) metal compounds and resins / waxes in a mixture of organic solvents and essential oils

· **Hazardous components:**

| | | | |
|---|---------------------|--|---------|
| CAS: 8002-09-3 EINECS: 304-455-9 | pine oil | Xi; R 38 | 10-25% |
| CAS: 108-94-1 EINECS: 203-631-1 RTECS: GW 1050000 | cyclohexanone | Xn; R 10-20 | 10-25% |
| CAS: 110-19-0 EINECS: 203-745-1 | isobutyl acetate | F; R 11-66 | max. 5% |
| CAS: 8006-64-2 EINECS: 232-350-7 RTECS: YO8400000 | Turpentine, oil | Xn, Xi, N; R 10-20/21/22-36/38-43-51/53-65 | max. 5% |
| CAS: 92-52-4 EINECS: 202-163-5 RTECS: DU 8050000 | biphenyl | Xi, N; R 36/37/38-50/53 | max. 1% |
| CAS: 95-50-1 EINECS: 202-425-9 RTECS: CZ 4500000 | 1,2-dichlorobenzene | Xn, Xi, N; R 22-36/37/38-50/53 | max. 1% |
| CAS: 108-93-0 EINECS: 203-630-6 RTECS: GV 7875000 | cyclohexanol | Xn, Xi; R 20/22-37/38 | max. 1% |

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· Main components:

| | | | |
|---|-------------------|--|---------|
| CAS: 8002-09-3 EINECS: 304-455-9 | pine oil |  Xi; R 38 | 10-25% |
| CAS: 108-94-1 EINECS: 203-631-1 RTECS: GW 1050000 | cyclohexanone |  Xn; R 10-20 | 10-25% |
| CAS: 65997-05-9 Polymer | polymerised rosin | | max. 5% |
| CAS: 110-19-0 EINECS: 203-745-1 | isobutyl acetate |  F; R 11-66 | max. 5% |
| CAS: 8006-64-2 EINECS: 232-350-7 RTECS: YO8400000 | Turpentine, oil |  Xn,  Xi,  N; R 10-20/21/22-36/38-43-51/53-65 | max. 5% |

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· Hazard description:

Xi Severe Irritant

· Canadian Hazard Symbols

B3 - Combustible liquid

D2B - Toxic material causing other toxic effects

**· Information pertaining to particular dangers for man and environment:**

Flammable.

Irritating to skin.

May cause sensitization by skin contact.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

· Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· NFPA ratings (scale 0 - 4)

Health = 1

Fire = 2

Reactivity = 0

· HMIS-ratings (scale 0 - 4)

HEALTH 1 Health = 1

FIRE 2 Fire = 2

REACTIVITY 0 Reactivity = 0

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4 First aid measures

- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
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.
- **After swallowing:** If symptoms persist consult doctor.

5 Fire fighting measures

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**
Water
Water with full jet
- **Protective equipment:**
Wear positive pressure self-contained respiratory breathing apparatus (SCBA) and full firefighting gear.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
Inform respective authorities in case of seepage into water course or sewage system.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

7 Handling and storage

- **Handling:**
- **Information 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.

- **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.

* 8 Exposure controls and personal protection

- **Additional information about design of technical systems:**
The application of this product requires well exhausted firing kilns and efficient ventilation of working areas.

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· **Components with limit values that require monitoring at the workplace:**

| 108-94-1 cyclohexanone | |
|------------------------------------|--|
| PEL | 200 mg/m ³ , 50 ppm |
| REL | 100 mg/m ³ , 25 ppm |
| | Skin |
| TLV | 50 mg/m ³ , 20 ppm |
| | Skin |
| 110-19-0 isobutyl acetate | |
| PEL | 700 mg/m ³ , 150 ppm |
| REL | 700 mg/m ³ , 150 ppm |
| TLV | 713 mg/m ³ , 150 ppm |
| 8006-64-2 Turpentine, oil | |
| PEL | 560 mg/m ³ , 100 ppm |
| REL | 560 mg/m ³ , 100 ppm |
| TLV | 112 mg/m ³ , 20 ppm |
| | SEN |
| 92-52-4 biphenyl | |
| PEL | 1 mg/m ³ , 0.2 ppm |
| REL | 1 mg/m ³ , 0.2 ppm |
| TLV | 1.3 mg/m ³ , 0.2 ppm |
| 95-50-1 1,2-dichlorobenzene | |
| PEL | Short-term value: C 300 mg/m ³ , C 50 ppm |
| REL | Short-term value: C 300 mg/m ³ , C 50 ppm |
| TLV | Short-term value: 301 mg/m ³ , 50 ppm |
| | Long-term value: 150 mg/m ³ , 25 ppm |

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

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.



Avoid contact with the skin.



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

· **Material of gloves**

- Chemical resistant gloves
- Nitrile rubber, NBR

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Product ID#: **BRUSHING BRIGHT PALLADIUM LUSTER****PBC7042-H**· **Eye protection:** Tightly sealed goggles

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9 Physical and chemical properties

· General Information

| | |
|---------------|------------------------------------|
| Form: | Fluid |
| Color: | According to product specification |
| Odor: | Characteristic |

· Change in condition

| | |
|-------------------------------------|---------------|
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | 153°C (307°F) |

· **Flash point:** 44°C (111°F) (ISO 3679)· **Ignition temperature:** 420.0°C (788°F)· **Auto igniting:** Product is not selfigniting.· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

| | |
|---------------|-----------|
| Lower: | 1.3 Vol % |
| Upper: | 9.4 Vol % |

· **Vapor pressure at 20°C (68°F):** 5.0 hPa (4 mm Hg)· **Density:** Not determined.

· Solubility in / Miscibility with

| | |
|---------------|-----------------------------------|
| Water: | Not miscible or difficult to mix. |
|---------------|-----------------------------------|

· **pH-value:** Neutral

· Solvent content:

| | |
|--------------------------|-------------------------|
| Organic solvents: | 50.2 % |
| Water: | 0.0 % |
| VOC (EU): | 502.2 g/l |
| Solvent (USA): | 502.2 g/l / 4.19 lb/gal |

· **Solids content:** 44.0 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.· **Dangerous reactions** No dangerous reactions known.· **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

8002-09-3 pine oil

| | | |
|------|------|------------------|
| Oral | LD50 | 2000 mg/kg (rat) |
|------|------|------------------|

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108-94-1 cyclohexanone

| | | |
|------------|----------|--------------------|
| Oral | LD50 | 1900 mg/kg (rat) |
| Dermal | LD50 | 948 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 8000 mg/l (rat) |

92-52-4 biphenyl

| | | |
|------|------|------------------|
| Oral | LD50 | 3280 mg/kg (rat) |
|------|------|------------------|

95-50-1 1,2-dichlorobenzene

| | | |
|------|------|-----------------|
| Oral | LD50 | 500 mg/kg (rat) |
|------|------|-----------------|

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

12 Ecological information

- **Ecotoxicological effects:**

- **Aquatic toxicity:**

108-94-1 cyclohexanone

| | | |
|------|---------------------|--------------------|
| Oral | EC50/48 h | 820 mg/l (daphnia) |
| | LC50/48 h | 536 mg/l (fish) |
| | LC50/96 h (dynamic) | 527 mg/l (fish) |

92-52-4 biphenyl

| | | |
|------|-----------|--------------------|
| Oral | LC50/48 h | 2.1 mg/l (daphnia) |
|------|-----------|--------------------|

- **Remark:** Harmful to fish
- **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.
Harmful to aquatic organisms

13 Disposal considerations

- **Product:**
- **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.

USA

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14 Transport information

· DOT regulations:



- Hazard class: 3
- Identification number: UN1263
- Packing group: III
- Proper shipping name (technical name): PAINT
- Label: 3

· Land transport ADR/RID (cross-border):



- ADR/RID class: 3 Flammable liquids
- Danger code (Kemler): 30
- UN-Number: 1263
- Packaging group: III
- Description of goods: 1263 PAINT

· Maritime transport IMDG:



- IMDG Class: 3
- UN Number: 1263
- Label: 3
- Packaging group: III
- EMS Number: F-E,S-E
- Marine pollutant: No
- Proper shipping name: PAINT

· Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 3
- UN/ID Number: 1263
- Label: 3
- Packaging group: III
- Proper shipping name: PAINT

15 Regulations

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

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| | |
|--|---------------------|
| · Section 313 (Specific toxic chemical listings): | |
| 92-52-4 | biphenyl |
| 95-50-1 | 1,2-dichlorobenzene |
| 108-93-0 | cyclohexanol |

| | |
|---|--|
| · TSCA (Toxic Substances Control Act): | |
| All ingredients are listed. | |

| | |
|---|--|
| · Proposition 65 | |
| · Chemicals known to cause cancer: | |
| None of the ingredients is listed. | |

| | |
|--|--|
| · Chemicals known to cause reproductive toxicity for females: | |
| None of the ingredients is listed. | |

| | |
|--|--|
| · Chemicals known to cause reproductive toxicity for males: | |
| None of the ingredients is listed. | |

| | |
|---|--|
| · Chemicals known to cause developmental toxicity: | |
| None of the ingredients is listed. | |

| | |
|--|---------------|
| · Canadian Ingredient disclosure list | |
| · Limit 0,1% | |
| 108-94-1 | cyclohexanone |

| | |
|-------------------|------------------|
| · Limit 1% | |
| 110-19-0 | isobutyl acetate |
| 8006-64-2 | Turpentine, oil |

| | | |
|--|---------------------|---|
| · Carcinogenicity categories | | |
| · EPA (Environmental Protection Agency) | | |
| 92-52-4 | biphenyl | D |
| 95-50-1 | 1,2-dichlorobenzene | D |

| | | |
|--|------------------|---|
| · NTP (National Toxicology Program) | | |
| 67-66-3 | trichloromethane | R |

| | | |
|---|---------------------|----|
| · TLV (Threshold Limit Value established by ACGIH) | | |
| 108-94-1 | cyclohexanone | A4 |
| 95-50-1 | 1,2-dichlorobenzene | A4 |
| 67-66-3 | trichloromethane | A3 |
| 76-22-2 | bornan-2-one | A4 |
| 78-59-1 | isophorone | A3 |

| | |
|---|--|
| · MAK (German Maximum Workplace Concentration) | |
| None of the ingredients is listed. | |

| | |
|---|------------------|
| · NIOSH-Ca (National Institute for Occupational Safety and Health) | |
| 67-66-3 | trichloromethane |

| | |
|--|--|
| · OSHA-Ca (Occupational Safety & Health Administration) | |
| None of the ingredients is listed. | |

· **Product related hazard informations:** The product has been marked in accordance with national laws.

· **Hazard symbols:**

Xi Severe Irritant

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- **Hazard-determining components of labelling:**

- Turpentine, oil

- **Risk phrases:**

- Flammable.

- Irritating to skin.

- May cause sensitization by skin contact.

- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

- **Safety phrases:**

- Do not breathe gas/fumes/vapour/spray.

- Avoid contact with skin and eyes.

- After contact with skin, wash immediately with plenty of soap and water

- Take precautionary measures against static discharges.

- Wear suitable gloves.

- Avoid release to the environment. Refer to special instructions/Safety data sheets

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.

- **Relevant R-phrases**

- 10 Flammable.

- 11 Highly flammable.

- 20 Harmful by inhalation.

- 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

- 20/22 Harmful by inhalation and if swallowed.

- 22 Harmful if swallowed.

- 36/37/38 Irritating to eyes, respiratory system and skin.

- 36/38 Irritating to eyes and skin.

- 37/38 Irritating to respiratory system and skin.

- 38 Irritating to skin.

- 43 May cause sensitization by skin contact.

- 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

- 65 Harmful: may cause lung damage if swallowed.

- 66 Repeated exposure may cause skin dryness or cracking

- **Contact:**

- M. Musetti

- EHS/Q Manager

- *** Data compared to the previous version altered.**