



**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

Fire = 2

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:** CO<sub>2</sub>, 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:**

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

<b>Form:</b>	Fluid
<b>Color:</b>	According to product specification
<b>Odor:</b>	Characteristic

#### · Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	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:

<b>Lower:</b>	1.3 Vol %
<b>Upper:</b>	9.4 Vol %

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

#### · Solubility in / Miscibility with

<b>Water:</b>	Not miscible or difficult to mix.
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· **pH-value:** Neutral

#### · Solvent content:

<b>Organic solvents:</b>	50.2 %
<b>Water:</b>	0.0 %
<b>VOC (EU):</b>	502.2 g/l
<b>Solvent (USA):</b>	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)
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**95-50-1 1,2-dichlorobenzene**

Oral	LD50	500 mg/kg (rat)
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- **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)
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- **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.

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

· <b>TSCA (Toxic Substances Control Act):</b>	
All ingredients are listed.	

· <b>Proposition 65</b>	
· <b>Chemicals known to cause cancer:</b>	
None of the ingredients is listed.	

· <b>Chemicals known to cause reproductive toxicity for females:</b>	
None of the ingredients is listed.	

· <b>Chemicals known to cause reproductive toxicity for males:</b>	
None of the ingredients is listed.	

· <b>Chemicals known to cause developmental toxicity:</b>	
None of the ingredients is listed.	

· <b>Canadian Ingredient disclosure list</b>	
· <b>Limit 0,1%</b>	
108-94-1	cyclohexanone

· <b>Limit 1%</b>	
110-19-0	isobutyl acetate
8006-64-2	Turpentine, oil

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

· <b>NTP (National Toxicology Program)</b>		
67-66-3	trichloromethane	R

· <b>TLV (Threshold Limit Value established by ACGIH)</b>		
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

· <b>MAK (German Maximum Workplace Concentration)</b>	
None of the ingredients is listed.	

· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>	
67-66-3	trichloromethane

· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>	
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.**