



Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/12/2008

Reviewed on 11/12/2008

1 Product Identification

- **Product Description** Bright gold
- **Trade name:** Brushing Bright Gold Lustre for hobby ceramics decoration

· **Product ID#:** **GBC7043-H**

GBC7043-H

- **Product Use:**
Coating compound/ Surface coating/ paint
Decoration of Hobby ceramic articles

· **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	25-50%
CAS: 108-94-1 EINECS: 203-631-1 RTECS: GW 1050000	cyclohexanone ☒ Xn; R 10-20	5-10%
CAS: 64742-47-8 EINECS: 265-149-8	Distillates (petroleum), hydrotreated light ☒ Xn; R 65	5-10%
CAS: 108-93-0 EINECS: 203-630-6 RTECS: GV 7875000	cyclohexanol ☒ Xn, ☒ Xi; R 20/22-37/38	5-10%
CAS: 95-50-1 EINECS: 202-425-9 RTECS: CZ 4500000	1,2-dichlorobenzene ☒ Xn, ☒ Xi, ☒ N; R 22-36/37/38-50/53	1-5%
CAS: 64742-94-5 EINECS: 265-198-5	solvent-naphtha (petroleum) heavy aromatic ☒ Xn, ☒ Xi, ☒ N; R 37/38-51/53-65-66-67	1-5%
CAS: 110-19-0 EINECS: 203-745-1	isobutyl acetate ☒ F; R 11-66	1-5%

(Contd. on page 2)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/12/2008

Reviewed on 11/12/2008

Product ID#: **GBC7043-H****GBC7043-H**

(Contd. of page 1)

CAS: 8052-42-4 EINECS: 232-490-9 RTECS: CI 9900000	Asphalt	1-5%
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	0.5-1%
CAS: 67-66-3 EINECS: 200-663-8 RTECS: FS 9100000	trichloromethane Carc. Cat. 3; ☒ Xn, ☒ Xi; R 22-38-40-48/20/22	< 0.5%
CAS: 78-59-1 EINECS: 201-126-0 RTECS: GW 7700000	isophorone Carc. Cat. 3; ☒ Xn, ☒ Xi; R 21/22-36/37-40	< 0.5%

· **Main components:**

CAS: 8002-09-3 EINECS: 304-455-9	pine oil ☒ Xi; R 38	25-50%
CAS: 68365-87-7 EINECS: 269-858-3	gold pinanyl mercaptide	10-25%
CAS: 65997-05-9 Polymer	polymerised rosin	10-25%
CAS: 108-94-1 EINECS: 203-631-1 RTECS: GW 1050000	cyclohexanone ☒ Xn; R 10-20	5-10%
CAS: 64742-47-8 EINECS: 265-149-8	Distillates (petroleum), hydrotreated light ☒ Xn; R 65	5-10%
CAS: 108-93-0 EINECS: 203-630-6 RTECS: GV 7875000	cyclohexanol ☒ Xn, ☒ Xi; R 20/22-37/38	5-10%
CAS: 95-50-1 EINECS: 202-425-9 RTECS: CZ 4500000	1,2-dichlorobenzene ☒ Xn, ☒ Xi, ☒ N; R 22-36/37/38-50/53	1-5%
CAS: 64742-94-5 EINECS: 265-198-5	solvent-naphtha (petroleum) heavy aromatic ☒ Xn, ☒ Xi, ☒ N; R 37/38-51/53-65-66-67	1-5%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.* **3 Hazards identification**· **Hazard description:**

Xn Harmful
N Dangerous for the environment

· **Canadian Hazard Symbols**

B3 - Combustible liquid
D2B - Toxic material causing other toxic effects



(Contd. on page 3)

USA

Product ID#: **GBC7043-H****GBC7043-H**

(Contd. of page 2)

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

Flammable.

Harmful if swallowed.

Irritating to skin.

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

Harmful: may cause lung damage if swallowed.

· **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 = 2

Fire = 2

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = *1

Fire = 2

Reactivity = 0

* **4 First aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Remove contaminated clothing and wash skin with soap and water. Wash or clean clothing before reuse.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** Immediately call a 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 full firefighting gear and SCBA

* **6 Accidental release measures**

· **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.

· **Measures for environmental protection:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· **Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

(Contd. on page 4)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/12/2008

Reviewed on 11/12/2008

Product ID#: **GBC7043-H****GBC7043-H**

(Contd. of page 3)

Dispose contaminated material as waste according to item 13.
 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.
- **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.
- **Components with limit values that require monitoring at the workplace:**
 There is no PEL established for this mixture. Recommend monitoring based upon the components in the mixture.

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

108-93-0 cyclohexanol

PEL	200 mg/m ³ , 50 ppm
REL	200 mg/m ³ , 50 ppm
	Skin
TLV	206 mg/m ³ , 50 ppm
	Skin

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

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

(Contd. on page 5)

USA

Product ID#: **GBC7043-H****GBC7043-H**

(Contd. of page 4)

8052-42-4 Asphalt

REL	Short-term value: C 5* mg/m ³ *15-min
TLV	0.5 I mg/m ³ as benzene-soluble aerosol

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	

67-66-3 trichloromethane

PEL	Short-term value: C 240 mg/m ³ , C 50 ppm
REL	Short-term value: 9.78* mg/m ³ , 2* ppm *60-min
TLV	49 mg/m ³ , 10 ppm

78-59-1 isophorone

PEL	140 mg/m ³ , 25 ppm
REL	23 mg/m ³ , 4 ppm
TLV	Short-term value: C 28 mg/m ³ , C 5 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.



Do not inhale gases / fumes / aerosols.



Avoid contact with the skin.



Avoid contact with the eyes and skin.

· **Protection of hands:** Protective gloves

· **Material of gloves**

Nitrile rubber, NBR
Chemical resistant gloves

· **Eye protection:** Tightly sealed goggles

9 Physical and chemical properties

· **General Information**

Form: Fluid

(Contd. on page 6)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/12/2008

Reviewed on 11/12/2008

Product ID#: **GBC7043-H****GBC7043-H**

(Contd. of page 5)

Color:	According to product specification
Odor:	Characteristic
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 149°C (> 300°F)
· Flash point:	43°C (109°F) (ISO 3679)
· Ignition temperature:	210°C (410°F)
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Vapor pressure at 20°C (68°F):	19.0 hPa (14 mm Hg)
· Density:	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· pH-value:	Neutral
· Solvent content:	
Organic solvents:	43.5 %
Water:	0.0 %
Solvent (USA):	435.0 g/l / 3.63 lb/gl
· Solids content:	27.8 %

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)
108-94-1 cyclohexanone		
Oral	LD50	1900 mg/kg (rat)
Dermal	LD50	948 mg/kg (rabbit)
Inhalative	LC50/4 h	8000 mg/l (rat)
108-93-0 cyclohexanol		
Oral	LD50	2060 mg/kg (rat)
95-50-1 1,2-dichlorobenzene		
Oral	LD50	500 mg/kg (rat)

(Contd. on page 7)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/12/2008

Reviewed on 11/12/2008

Product ID#: **GBC7043-H****GBC7043-H**

(Contd. of page 6)

64742-94-5 solvent-naphtha (petroleum) heavy aromatic

Oral	LD50	> 6000 mg/kg (rat)
Dermal	LD50	> 3000 mg/kg (rab)
Inhalative	LC50/4 h	> 10 mg/l (rat)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** No irritating effect.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

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)

- **Remark:** Toxic for fish

- **General notes:**

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for 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.

14 Transport information

- **DOT regulations:**



- **Hazard class:**

3

- **Identification number:**

UN1263

(Contd. on page 8)

USA

Product ID#: **GBC7043-H****GBC7043-H**

(Contd. of page 7)

- **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:** Yes
- **Propper shipping name:** PAINT

· **Air transport ICAO-TI and IATA-DGR:**



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

15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

67-66-3	trichloromethane
---------	------------------

· **Section 313 (Specific toxic chemical listings):**

108-93-0	cyclohexanol
----------	--------------

95-50-1	1,2-dichlorobenzene
---------	---------------------

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

(Contd. on page 9)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/12/2008

Reviewed on 11/12/2008

Product ID#: **GBC7043-H****GBC7043-H**

(Contd. of page 8)

· **Proposition 65**· **Chemicals known to cause cancer:**

67-66-3 trichloromethane

· **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

67-66-3 trichloromethane

· **Limit 1%**

108-93-0 cyclohexanol

95-50-1 1,2-dichlorobenzene

110-19-0 isobutyl acetate

· **Carcinogeny categories**· **EPA (Environmental Protection Agency)**

95-50-1 1,2-dichlorobenzene

D

· **IARC (International Agency for Research on Cancer)**

67-66-3 trichloromethane

2B

· **NTP (National Toxicology Program)**

67-66-3 trichloromethane

R

· **TLV (Threshold Limit Value established by ACGIH)**

108-94-1 cyclohexanone

A3

95-50-1 1,2-dichlorobenzene

A4

8052-42-4 Asphalt

A4

· **MAK (German Maximum Workplace Concentration)**

108-94-1 cyclohexanone

3B 9.818%

8052-42-4 Asphalt

2 1.354%

8006-64-2 Turpentine, oil

3A 0.679%

67-66-3 trichloromethane

4 0.349%

78-59-1 isophorone

3B 0.045%

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

8052-42-4 Asphalt

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:**

Xn Harmful

N Dangerous for the environment

(Contd. on page 10)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/12/2008

Reviewed on 11/12/2008

Product ID#: GBC7043-H**GBC7043-H**

(Contd. of page 9)

- **Risk phrases:**

Flammable.
Harmful if swallowed.
Irritating to skin.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Harmful: may cause lung damage if swallowed.

- **Safety phrases:**

Keep away from sources of ignition - No smoking.
Do not breathe fumes
Avoid contact with eyes.
After contact with skin, wash immediately with plenty of soap and water
Take precautionary measures against static discharges.
Use appropriate container to avoid environmental contamination.

- **Special labeling of certain preparations:**

Contains Turpentine, oil. May cause an allergic reaction.

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.
21/22 Harmful in contact with skin and if swallowed.
22 Harmful if swallowed.
36/37 Irritating to eyes and respiratory system.
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.
40 Limited evidence of a carcinogenic effect.
43 May cause sensitization by skin contact.
48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
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
67 Vapours may cause drowsiness and dizziness

- **Contact:**

M. Musetti
EHS/Q Manager

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