

Safety Data Sheet
according to 1907/2006/EC, Article 31

Revision: 14.07.2010

Printing date 14.07.2010

1 Identification of substance**Product details**

Trade name

Gold Platinum Palladium powder

Stock number:

89726

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com

Informing department:

Product safety department.

Emergency information:

Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240**2 Hazards identification**

Hazard designation:



F Highly flammable

Information pertaining to particular dangers
for man and environment
GHS label elements

R 11 Highly flammable.

**Warning**

Prevention:

H228 - Flammable solid.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

Response:

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

Gold (CAS# 7440-57-5), 40%
Platinum (CAS# 7440-06-4), 40%
Palladium (CAS# 7440-05-3), 20%**4 First aid measures**

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.

After swallowing

Rinse opened eye for several minutes under running water. Then consult doctor.
Seek immediate medical advice.**5 Fire fighting measures**Suitable extinguishing agents
For safety reasons unsuitable extinguishing
agents

Special powder for metal fires. Do not use water.

Special hazards caused by the material, its
products of combustion or flue gases:
Protective equipment:Water.
Carbon dioxide
Halocarbon extinguisherRisk of dust explosion.
Wear self-contained breathing apparatus.
Wear full protective suit.**6 Accidental release measures**

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation

Measures for environmental protection:

Keep away from ignition sources
Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting:

Ensure adequate ventilation.

Additional information:

Keep away from ignition sources.
See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.**7 Handling and storage**

Handling

Information for safe handling:

Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
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.
Fumes can combine with air to form an explosive mixture.Storage
Requirements to be met by storerooms and
containers:

Store in cool location.

Information about storage in one common
storage facility:

Store away from oxidizing agents.

Further information about storage
conditions:Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.**8 Exposure controls and personal protection**Additional information about design of
technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with critical values that require
monitoring at the workplace:

Platinum metal and soluble salts (as Pt)

	mg/m ³	
ACGIH TLV		1 (metal); 0.002 (soluble salts)
Austria MAK		1 (metal); 0.002 (soluble salts)
Belgium TWA		1 (metal); 0.002 (soluble salts)
Denmark TWA		0.002 (soluble salts)

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Additional information: Personal protective equipment General protective and hygienic measures Breathing equipment: Eye protection: Body protection:	Finland TWA 1 (metal); 0.002 (soluble salts) France VME 1 (metal) Germany MAK 0.002 (soluble salts)-Ceiling Hungary TWA 0.001; 0.002-STEL (soluble salts) Korea TLV 1 (metal); 0.002 (soluble salts) Netherlands MAC-TTG 1 (metal); 0.002 (soluble salts) Norway TWA 0.002 Switzerland MAK-W 0.002 United Kingdom TWA 5 (metal); 0.002 (soluble salts) USA PEL 0.002 No data
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The usual precautionary measures should be adhered to in handling the chemicals.
 Keep away from foodstuffs, beverages and food.
 Instantly remove any soiled and impregnated garments.
 Wash hands during breaks and at the end of the work.
 Use breathing protection with high concentrations.
 Safety glasses
 Face protection
 Protective work clothing.

9 Physical and chemical properties:**General Information**

Form:	Powder
Colour:	Black
Smell:	Odourless
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined
Flash point:	Not applicable
Inflammability (solid, gaseous)	Highly flammable.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Critical values for explosion:	
Lower:	Not determined
Upper:	Not determined
Steam pressure:	Not determined
Density	Not determined
Solubility in / Miscibility with Water:	Insoluble

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
Materials to be avoided:	Oxidizing agents Hydrocarbons
Dangerous reactions:	Reacts with oxidizing agents
Dangerous products of decomposition:	Metal oxide

11 Toxicological information

Acute toxicity:	
Primary irritant effect:	
on the skin:	Irritant for skin and mucous membranes.
on the eye:	Irritant effect.
Sensitization:	Platinum salts, especially ionic platinum halogeno complexes, may cause severe allergic reactions.
Other information (about experimental toxicology):	Tumorigenic effects have been observed on tests with laboratory animals.
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this product. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:

Additional ecological information:	
General notes:	Generally not hazardous for water. Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

Product:	
Recommendation	Consult state, local or national regulations for proper disposal. Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations.
Uncleaned packagings:	
Recommendation:	Disposal must be made according to official regulations.

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

ADR/RID-GGVS/E Class:	4.1 (F3) Flammable solids, self-reactive substances and solid desensitized explosives.
Kemler Number:	40
UN-Number:	3089

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Packaging group:	III
Label	4.1
Designation of goods:	3089 METAL POWDER, FLAMMABLE, N.O.S. (gold/platinum/palladium)
Limited quantities (LQ)	LQ9
Transport category	3
Tunnel restriction code	E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class:	4.1
UN Number:	3089
Label	4.1
Packaging group:	III
Marine pollutant:	No
Segregation groups	Heavy metals and their salts (including their organometallic compounds), powdered metals
Correct technical name:	METAL POWDER, FLAMMABLE, N.O.S. (gold/platinum/palladium)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class:	4.1
UN/ID Number:	3089
Label	4.1
Packaging group:	III
Correct technical name:	METAL POWDER, FLAMMABLE, N.O.S. (gold/platinum/palladium)

UN "Model Regulation": UN3089, METAL POWDER, FLAMMABLE, N.O.S., 4.1, III

15 Regulatory information**Designation according to EC guidelines:****Code letter and hazard designation of product:**

F Highly flammable

Risk phrases:

11 Highly flammable.

Safety phrases:

7/8 Keep container tightly closed and dry.
16 Keep away from sources of ignition - No smoking.
33 Take precautionary measures against static discharges.

National regulations**Information about limitation of use:**

Employment restrictions concerning young persons must be observed.
For use only by technically qualified individuals.

Water hazard class:

Generally not hazardous for water.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.

Contact: Zachariah Holt
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)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 CAS: Chemical Abstracts Service (division of the American Chemical Society)