SAFETY DATA SHEET
Version Number: 5
Revision Date: 12 Feb 2013

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Platinum : Ruthenium Catalyst
Product Code: CMG – 16508
REACH Registration No: Not applicable, substance is exempt from registration.

1.2 Relevant identified use fo the substance or mixture and uses advised against

Laboratory Chemical, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

MANUFACTURER: Ceimig Limited
ADDRESS: Units 1 – 3 Smeaton Road
Wester Gourdie Industrial Estate
DUNDEE
DD2 4UT
Telephone: + 44 (0) 1382 624127
Fax: + 44 (0) 1382 611777
E-mail address: info@ceimig.com

1.4 Emergency Telephone Number

Telephone: + 44 (0) 1382 624127
The above telephone number is only available during office hours of 9am to 5pm (UK Time)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)
Flammable solids (Category 1)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Highly Flammable.

2.2 Label Elements

Signal Word Danger

Hazard statement(s)
H228 Flammable solid

Precautionary statement(s)
P210 Keep away from heat/ sparks/ open flames/ hot surfaces – No smoking

Supplemental Hazard Statement(s) none

According to EU Directive 67/548/EEC as amended

Hazard symbol(s)

R-phrase(s)

R11	Highly flammable

S-phrase(s)

S16	Keep away from sources of ignition – No smoking
S22	Do not breathe dust
S24/25	Avoid contact with skin and eyes

2.3 Other Hazards
none

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Formula Pt : Ru
Molecular Weight N/A

Component	Classification	Concentration
Platinum		
CAS No: 7440-06-4 EC No: 231-116-1 Index No: -	-	20 – 30 %
Ruthenium		
CAS No: 7440-18-8 EC No: 231-127-1 Index No: -	Flam Sol 1; F, H228, R11	70 – 80 %

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled
If breathed in, move person into fresh air. If not breathing give artificial respiration.

In case of skn contact
Wash off with soap and plenty of water.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed
no data available

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Use water spray, alcohol resistant foam, dry chemical or carbon dioxide

5.2 Special Hazards arising from the substance or mixture
Ruthenium oxide

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

6.2 Environmental precautions
No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. Contain spillage, and then collect with electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local Regulations (see section 13)

6.4 Reference to other sections
For exposure control see section 8. For disposal see section 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid formation of dusts and aerosols.
Provide appropriate exhaust ventilation at places where dust if formed. Avoid dust formation. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)
no data available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Basis
Platinum	7440-06-4	TWA	5 mg/m^3	UK. EH40 WEL – Workplace exposure limits

8.2 Exposure Controls
Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment
Respiratory Protection
Where risk assessment shows air-purifiying respirators are appropriate use a full-face respirator with mulit-purpose combination (US) or type AXBEK (EN 14387) repsirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye Protection
Face Shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU).

Skin and body protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU directive 89/686/EEC and the standard EN 374 derived from it. Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures:
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Form: solid, Colour: black
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	The substance or mixture is a flammable solid with the subcategory 1
j) Upper/Lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Solubility	no data available
o) Parition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidising properties	no data available

9.2 Other information
no data available

SECTION 10: STABILITY AND REACTIVITY

10. 1 Reactivity
no data available

10.2 Chemical stability
no data available

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials
Strong oxidizing agents

10.6 Hazardous decomposition products
no data available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
no data available

Skin corrosion/Irritation
no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin Sensitisation
Sensitization; Prolonged or repeated exposure may cause allergic reaction in certain sensitive individuals.

Germ cell mutagenicity
no data available

Carcinogenicity

Carcinogenicity – rat – Implant
Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumours at site or application.

Carcinogenicity – mouse – Implant
Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumours at site or application.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed Human carcinogen by IARC

Reproductive toxicity
no data available

Specific target organ toxicity – single exposure
no data available

Specific target organ toxicity – repeated exposure
no data available

Aspiration hazard
no data available

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin, May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information
RTECS#: not available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
no data available

12.6 Other adverse effects
no data available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. The material is to be disposed of as hazardous waste.

Contaminated packaging
Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR/RID	IMDG	IATA
UN3089	UN3089	UN3089

14.2 UN proper shipping name

ADR/RID
METAL POWDER, FLAMMABLE, N.O.S (Platinum:Ruthenium)
IMDG
METAL POWDER, FLAMMABLE, N.O.S (Platinum:Ruthenium)
IATA
Metal powder, flammable, n.o.s (Platinum:Ruthenium)

14.3 Transport hazard class(es)

ADR/RID	IMDG	IATA
Class 4.1	Class 4.1	Class 4.1

14.4 Packing Group

ADR/RID	IMDG	IATA
Packing Group II	Packing Group II	Packing Group II

14.5 Environmental Hazards

ADR/RID	IMDG	IATA
No	Marine Pollutant: No	No

14.6 Special Precautions for user
no data available

SECTION 15: REGULATORY INFORMATION

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment
no data available

SECTION 16: OTHER INFORMATION

Further Information:
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.