

# Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 12.10.2012

Version number 2

Revision: 12.10.2012

## 1 Identification of the substance/mixture and of the company/undertaking

### · Product identifier

· Trade name: TETRAAMINEPLATINUM(II) NITRATE ROTI®METIC Ultra 99.999%

· Article number: 5746

· CAS Number:

20634-12-2

· EC number:

243-929-9

· Registration number

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

· Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

· Application of the substance / the preparation Laboratory chemical

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Carl Roth GmbH + Co. KG

Schoemperlenstraße 3-5

76185 Karlsruhe

Germany

Telefon: +49/(0)721 5606-0

Telefax: +49/(0)721 5606-149

E-Mail: [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

· Further information obtainable from: Department Health, Safety and Environment

· Emergency telephone number: Poison Centre Munich

Telefon +49/(0)89 19240

## 2 Hazards identification

· Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

Ox. Sol. 2 H272 May intensify fire; oxidiser.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

O; Oxidising

R8: Contact with combustible material may cause fire.

R5: Heating may cause an explosion.

· Label elements

· Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

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· **Hazard pictograms**

GHS03

GHS07

· **Signal word** Danger· **Hazard statements**

H272 May intensify fire; oxidiser.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

· **Precautionary statements**

P221 Take any precaution to avoid mixing with combustibles.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

· **Other hazards**

All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Substances**· **CAS No. Description**

20634-12-2 Tetraammineplatinum(II) nitrate

· **Identification number(s)**· **EC number:** 243-929-9· **Formula:**  $H_{12}N_6O_6Pt$ · **Molar mass [g/mol]:** 387,22

### 4 First aid measures

· **Description of first aid measures**· **After inhalation:** Supply fresh air and to be sure call for a doctor.· **After skin contact:**

If skin irritation continues, consult a doctor.

Wash with water and soap.

· **After eye contact:** Rinse opened eye for 10 minutes under running water. Then consult a doctor.· **After swallowing:**

Rinse out mouth and drink a glass of water. Do not induce vomiting.

Call for a doctor immediately and show the container or label.

· **Information for doctor:**· **Most important symptoms and effects, both acute and delayed** No further relevant information available.· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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## 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Use fire extinguishing methods suitable to surrounding conditions.  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:**  
For this substance/mixture no limitations of extinguishing agents are given.
- **Special hazards arising from the substance or mixture**  
In the event of fire development of hazardous combustion gases or vapours possible.  
In case of fire, the following can be released:  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide and carbon dioxide
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Wear protective clothing.  
Avoid formation of dust.  
Do not breathe dust.  
Avoid contact with the eyes and skin.
- **Environmental precautions:** Do not allow to enter sewers/ground water or penetrate the soil.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Dispose of the material collected according to regulations.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Keep away from heat and direct sunlight.  
Handling corresponding to laboratory safety guidelines.
- **Information about fire - and explosion protection:** Protect from heat.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Store away from flammable substances.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.

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· **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.· **Control parameters**· **Ingredients with limit values that require monitoring at the workplace:** Not required.· **Additional information:** The lists valid during the making were used as basis.· **Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Do not eat, drink, smoke or sniff while working.

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 eyes and skin.

· **Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Required when dusts are generated: filter P3.

· **Protection of hands:**

Protective gloves

Due to missing tests no recommendation to the glove material can be given for the product.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Tightly sealed goggles

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· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

Form:	Crystalline powder
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Colour:	White
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Odour:	Characteristic
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Odour threshold:	No information available.
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pH-value:	No information available.
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#### · Change in condition

Melting point/Melting range:	262°C
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Boiling point/Boiling range:	No information available.
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Flash point:	No information available
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Flammability (solid, gaseous):	Contact with combustible material may cause fire.
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Ignition temperature:	No information available
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Decomposition temperature:	262°C
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Self-igniting:	No information available
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Danger of explosion:	Heating may cause an explosion.
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#### · Explosion limits:

Lower:	No information available.
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Upper:	No information available.
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Oxidizing properties:	May intensify fire; oxidiser.
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Vapour pressure:	No information available
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Density:	No information available.
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Vapour density	No information available
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Evaporation rate	No information available
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Solubility in / Miscibility with water:	Soluble.
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Partition coefficient (n-octanol/water):	No information available
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#### · Viscosity:

Dynamic:	No information available.
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Kinematic:	No information available.
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Other information	No further relevant information available.
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## 10 Stability and reactivity

### · Reactivity

### · Chemical stability

### · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· **Possibility of hazardous reactions** No information available.

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** No information available.

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· **Hazardous decomposition products:** No information available.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values relevant for classification:** Quantitative data on the toxicity of this product are not available.
- **Specific symptoms in biological assay:** No information available.
- **Primary irritant effect:**
- **on the skin:**  
Irritant to skin and mucous membranes.  
Risk of skin sensitization.
- **on the eye:** Irritating effect.
- **after inhalation:** Irritations in the respiratory tract, coughing, dyspnoea.
- **Sensitization:** Sensitization possible through skin contact.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** No information available
- **Aspiration hazard:** No information available.
- **Specific target organ toxicity - single exposure** May cause respiratory irritation.
- **Specific target organ toxicity - repeated exposure**  
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
- **Additional toxicological information:** We have no description of any toxic symptoms.
- **Further information:** The product should be handled with the care usual when dealing with chemicals.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Do not allow to enter waters, waste water, or soil!
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
This material and its container must be disposed of as hazardous waste.  
The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.
- **Uncleaned packaging:**
- **Recommendation:** Disposal according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

- **UN-Number**
- **ADR, IMDG, IATA** UN1479

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· UN proper shipping name	1479 OXIDIZING SOLID, N.O.S. (Tetraammineplatinum(II) nitrate)
· ADR	
· IMDG, IATA	OXIDIZING SOLID, N.O.S. (Tetraammineplatinum(II) nitrate)
· Transport hazard class(es)	
· ADR, IMDG, IATA	
	
· Class	5.1 Oxidising substances.
· Label	5.1
· Packing group	
· ADR, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Oxidising substances.
· Danger code (Kemler):	50
· EMS Number:	F-A,S-Q
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1 kg
· Transport category	2
· Tunnel restriction code	E
· UN "Model Regulation":	UN1479, OXIDIZING SOLID, N.O.S. (Tetraammineplatinum(II) nitrate), 5.1, II

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Information about limitation of use: In dealing with chemicals the national laws must be observed.
- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### 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 phrases Contact with combustible material may cause fire.
- Department issuing MSDS: Department: Health, Safety and Environment
- Contact: Herr Heine
- Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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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)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

· \* **Data compared to the previous version altered.**

GB