



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Version 2.1
Revision date: 10.03.2011

Reservoir Pt

Material: 346561-8077-000
Print Date 27.03.2012

1. Identification of the substance / preparation and the company / undertaking

Trade name : Gas reservoir, contains:
trimethyl(methylcyclopentadienyl)platinum(IV)

Manufacturer/supplier : Carl Zeiss NTS GmbH

Address : Carl-Zeiss-Straße 22
D-73447 Oberkochen

Telephone : +49 7364 20-0

Technical Information : Chemical and material engineering
Telephone : +49 7364 20-4599
Telefax : +49 7364 20-4521

Product Safety : Chemical and material engineering
Mailto : zeih@zeiss.de, hamm@zeiss.de

Emergency telephone : Poisoning Control Center
Telephone : +49 551 19240 (24 hours)

Use of the Substance / Preparation

Sector : Laboratory areas in industry and business, Research and
Development

Application category : Industrial use, Professional use

Use : Gas reservoir for vacuum applications

2. Hazards identification

Classification according to Regulation (EC) No. 1272/2008 (GHS) ¹

Acute toxicity, Category 1; Route of Exposure: Dermal
H310: Fatal in contact with skin.

Acute toxicity, Category 1; Route of Exposure: Oral
H300: Fatal if swallowed.

Skin sensitization, Category 1
H317: May cause an allergic skin reaction.

Acute aquatic toxicity, Category 1
H400: Very toxic to aquatic life.

Classification procedure: Conversion table (Regulation 1272/2008, Annex VII)

Classification according to Directive 67/548/EEC or Directive 1999/45/EC ²

T+: Very toxic
R27/28: Very toxic in contact with skin and if swallowed.

Sensitising
R43: May cause sensitization by skin contact.



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N: Dangerous for the environment
R50: Very toxic to aquatic organisms.

For footnotes, see section 16.

3. Composition / information on ingredients

Information on the substance / preparation (mixture)

Trimethyl(methylcyclopentadieny)platinum(IV)

CAS-No. : 94442-22-5

4. First aid measures

- | | | |
|--------------|---|--|
| Inhalation | : | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| Skin contact | : | Wash off immediately with soap and plenty of water. Consult a physician. |
| Eye contact | : | Rinse immediately with plenty of water, also under the eyelids. Consult a physician. |
| Ingestion | : | Never give anything by mouth to an unconscious person. Rinse mouth. Call a physician or poison control centre immediately. |

5. Fire-fighting measures

- | | | |
|---|---|---|
| Suitable extinguishing media | : | water spray jet, Carbon dioxide (CO ₂), Dry chemical, Foam |
| Extinguishing media which shall not be used for safety reasons | : | High volume water jet |
| Hazards caused by the substance/combustion products/origin of gases | : | In case of fire formation of carbonoxides and other toxic gases/vapors is possible. In the event of fire and/or explosion do not breathe fumes. |
| Special protective equipment for fire-fighters | : | In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. |
| Other data | : | Avoid extinguishing water reaching water or ground water system. |

6. Accidental release measures

- | | | |
|---------------------------|---|--|
| Personal precautions | : | Avoid dust formation. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Do not breathe dust. Wear respiratory protection. Evacuate personnel to safe areas. |
| Environmental precautions | : | Do not discharge into sewerage system, surface water or soil. |
| Removal | : | Use mechanical handling equipment. Avoid dust formation. Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly. Adequate disposal |

7. Handling and storage



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Handling

- Safe handling advice : Avoid contact with skin, eyes and clothing. Avoid breathing. Use personal protective equipment.
- Advice on protection against fire and explosion : Keep away from heat and sources of ignition.

Storage

- Requirements for storage areas and containers : Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Sensitive to air. Handle and store under inert gas.

8. Exposure controls / personal protection

Exposure limit(s)

- Remarks : None.

Occupational exposure controls

- Protective measures : Do not breathe dust. Avoid contact with skin and eyes. Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
- Hygiene measures : Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.
- Respiratory protection : Required if dust is formed. Suitable mask with particle filter P3 (European Norm 143)
- Hand protection : Wear suitable gloves.
- Eye protection : Safety glasses
- Skin and body protection : closed work clothing

Environmental exposure controls

- Additional advice : see section 6

9. Physical and chemical properties

General Information

- Form : solid
- Colour : off-white

Important Health Safety and Environmental Information

- Boiling point/boiling range : 23 °C at 0,07 hPa
- Melting point/range : 30 - 31 °C
- Flash point : 55 °C (closed cup)



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Water solubility : insoluble

10. Stability and reactivity

Hazardous reactions : None known.
Stable
Conditions to avoid : Sensitive to air. Handle and store under inert gas.
Materials to avoid : Strong oxidizing agents
Hazardous decomposition products : In case of fire formation of carbonoxides and other toxic gases/vapors is possible.

11. Toxicological information

Toxicology tests

Acute oral toxicity : LD50 rat: 5 - 25 mg/kg
Acute dermal toxicity : Very toxic in contact with skin.

General Information

Other information on toxicity : Further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Ecotoxicity

Daphnia toxicity : EC50 Daphnia magna (Water flea): 0,031 mg/l / 48 h (OECD Test Guideline 202)

Other environmental data

Other data : Should not be released into the environment. Adequate disposal

13. Disposal considerations

Product : In accordance with local and national regulations, if applicable send back the empty reservoir for refilling.

14. Transport information

Land transport ADR/RID



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Class : 6.1 UN No. : 3467 Packaging group : I
Classification code : T3
Labels : 6.1
Description of the goods : Organometallic compound, toxic, solid, n.o.s.
(Trimethyl(methylcyclopentadienyl)platinum(IV))

Sea transport IMDG

Class : 6.1 UN No. : 3467 Packaging group : I
EmS : F-A, S-A

Marine pollutant :

Labels : 6.1
Description of the goods : ORGANOMETALLIC COMPOUND, TOXIC, SOLID, N.O.S.
(TRIMETHYL(METHYLCYCLOPENTADIENYL)PLATINUM(IV))

Air transport ICAO/IATA

Class : 6.1 UN No. : 3467 Packaging group : I
Labels : 6.1
Description of the goods : Organometallic compound, toxic, solid, n.o.s.
(Trimethyl(methylcyclopentadienyl)platinum(IV))

15. Regulatory information

Labelling according to Regulation (EC) No. 1272/2008 (GHS) ¹



Signal word: Danger

Hazard statements

H300 : Fatal if swallowed.
H310 : Fatal in contact with skin.
H317 : May cause an allergic skin reaction.
H400 : Very toxic to aquatic life.

Precautionary statements

P264 : Wash hands thoroughly after handling.
P273 : Avoid release to the environment.
P280 : Wear protective gloves/protective clothing.
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.
P310 : Immediately call a POISON CENTER or doctor/physician.

Other data



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Labelling according to Directive 67/548/EEC or Directive 1999/45/EC ²

Letter(s) for the symbol(s) and indications of danger



T+ : Very toxic



N : Dangerous for the environment

R-phrases(s)

R27/28 : Very toxic in contact with skin and if swallowed.
R43 : May cause sensitization by skin contact.
R50 : Very toxic to aquatic organisms.

S-phrases(s)

S28 : After contact with skin, wash immediately with plenty of water and soap.
S36/37 : Wear suitable protective clothing and gloves.
S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S61 : Avoid release to the environment. Refer to special instructions/ Safety data sheets.

For footnotes, see section 16.

EU-Regulations

Seveso Directive II : 96/82/EG: Falls under Seveso II - Directive / Major accident legislation Number: 1

Restrictions : 92/85/EWG:
Follow Directive 92/85/EC on the protection of pregnant workers and workers who have recently given birth or are breastfeeding, and its national implementations.
: 94/33/EG:
Follow Directive 94/33/EC on the protection of young people at work and its national implementations.

16. Other information

The information in this safety sheet is based on the data available at the time of compilation and is intended to describe the product with respect to the precautions to be taken in its use. This information is provided without any guarantee of the properties specified.

Update information



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Relevant changes to the previous version are symbolized by vertical bars at the left edge.

Additions : Section 15, Classification and Labelling according to GHS (Regulation 1272/2008)

Additional advice

Sources: Directive 67/548/EEC Annex I, TRGS 900, TRGS 903, International dangerous goods regulations, Supplier details

Footnotes:

1] Obligatory for substances from December, 01, 2010, obligatory for mixtures from June, 01, 2015.

2] Valid for substances until November, 30, 2010, valid for preparations (mixtures) until May, 31, 2015.