

## Safety Data Sheet

Date of preparation 2017/03/21

Date of revision / /

### 1. Identification

Name: **DICHLOROTETRAAMMINEPALLADIUM SOLUTION**

Supplier: JAPAN PURE CHEMICAL CO., LTD.

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### 2. Hazard(s) identification

#### GHS classification

##### Physical hazards

Explosives	not applicable
Flammable gases	not applicable
Flammable aerosols	not applicable
Oxidizing gases	not applicable
Gases under pressure	not applicable
Flammable liquids	no data available
Flammable solids	not applicable
Self-reactive substances and mixtures	no data available
Pyrophoric liquids	not applicable
Pyrophoric solids	not applicable
Self-heating substances and mixtures	no data available
Substances, which in contact with water, emit flammable gases	not applicable
Oxidizing liquids	no data available
Oxidizing solids	not applicable
Organic peroxides	no data available
Corrosive to metals	no data available

##### Health hazards

Acute toxicity (Oral)	no data available
Acute toxicity (Dermal)	no data available
Acute toxicity (Inhalation)	no data available
Skin corrosion/irritation	no data available
Serious eye damage/eye irritation	no data available
Respiratory sensitizer	no data available
Skin sensitizer	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	no data available
Toxic to reproduction	no data available
Specific target organ toxicity following single exposure	no data available
Specific target organ toxicity following repeated exposure	no data available
Aspiration hazard	no data available



**Environmental hazards**

Acute hazards to the aquatic environment  
 Chronic hazards to the aquatic environment

no data available  
 no data available

**GHS label elements**

**Pictograms or hazard symbols** none

**Signal words** none

**Hazard statements** none

**Precautionary statements**

[Prevention precautionary statements]

Do not eat, drink or smoke when using this product. (P270)

Wash hand thoroughly after handling. (P264)

Wear protective gloves, protective clothing, eye protection, face protection. (P280)

Do not breathe dust, fume, gas, spray. (P260)

Avoid release to the environment. (P273)

[Response precautionary statements]

If on skin: Wash with plenty of soap and water. (P302:P352)

Wash contaminated clothing before reuse. (P363)

If exposed or concerned: Get medical advice/attention. (P308:P313)

[Storage precautionary statements]

Store locked up. (P405)

[Disposal precautionary statements]

Dispose of contents/container to in accordance with local regulation. (P501)

**Any national or regional information**

Japan

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**3. Composition/information on ingredients**

**DICHLOROTETRAAMMINEPALLADIUM SOLUTION** is a mixture that includes following components.

Component	: tetraamminepalladium(II)dichloride	water
Concentration:	23.1wt%	76.9wt%
Formula	: $[\text{Pd}(\text{NH}_3)_4]\text{Cl}_2$	$\text{H}_2\text{O}$
CAS No.	: 13815-17-3	7732-18-5

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**4. First-aid measures**

If on skin: Wash with plenty of soap and water. Wash contaminated clothing before reuse.  
 (P302: P352+P363)

If exposed

or concerned: Get medical advice/attention. (P308:P313)

If in eyes: Rinse cautiously with water for several minutes. (P305: P351)

If swallowed: Call a POISON CENTER/ doctor if you feel unwell. (P301: P312)

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## 5. Fire-fighting measures

### Suitable extinguishing media

Water, sand, and powder are effective fire extinguishing agents.

### Specific hazards arising from the chemical

This product itself is difficult to catch fire.

In contact with fire may release irritant, corrosive, and toxic gases.

### Suitable extinguishing methods

Keep away from open flames. Apply water from a safe distance to cool and protect surrounding area.

### Special protective actions for fire-fighters

Wear fire/flame resistant/retardant clothing. Wear respiratory protection and oxygen breathing apparatus.

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## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear protective gloves, protective clothing, and eye protection.

### Environmental precautions

Avoid release to the environment.

### Methods and materials for containment and cleaning up

Collect spillage. Consult local waste regulators for proper disposal.

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## 7. Handling and storage

### Precautions for safe handling

Use only in a well-ventilated area.

Wear protective gloves, protective clothing, and eye protection.

Keep away from hot surfaces. Do not eat, drink or smoke when using this product.

Wash thoroughly after handling. Do not subject to shock and heat.

Be sure to use up whole solution at one time once the package is opened.

### Conditions for safe storage

Store locked up. Protect from sunlight. Keep cool and dry. Keep container tightly closed.

Keep in the original container, or in polyethylene, polypropylene, or glass containers.

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## 8. Exposure controls/personal protection

### Control parameters

Allowable concentration no data

### Appropriate engineering controls

Keep container tightly closed. Keep cool and dry. Equip local exhaust ventilation.

Equip eyewash and safety shower.

### Individual protection measures

Respiratory protection dust mask

Eye protection safety glasses with side shield (safety goggles or face shield)

Protective gloves rubber/vinyl gloves

Protective clothing rubber/vinyl boots and apron; and working clothes

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**9. Physical and chemical properties**

Appearance	yellow liquid
Odor	Ammonia odor
Odor threshold	no data
pH	9.0-12.0
Melting point/freezing point	no data
Initial boiling point and boiling range	no data
Flash point	no data
Evaporation rate	no data
Flammability (solid, gas)	no data
Upper/lower flammability or explosive limits	no data
Vapor pressure	no data
Vapor density	no data
Relative density	1.05-1.20
Solubility(ies)	easily soluble in ammonia solution.
Partition coefficient: n-octanol/water	no data

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**10. Stability and reactivity****Chemical stability**

Contact with air	not dangerous
Contact with water	not dangerous
Heating	not dangerous

**Possibility of hazardous reactions**

No data

**Conditions to avoid**

No data

**Incompatible materials**

No data

**Hazardous decomposition products**

No data

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**11. Toxicological information**

Acute toxicity	no data
Skin corrosion/irritation	no data
Serious eye damage/irritation	no data
Respiratory or skin sensitization	no data
Germ cell mutagenicity	no data
Carcinogenicity	no data
Reproductive toxicity	no data
STOT-single exposure	no data
STOT-repeated exposure	no data
Aspiration hazard	no data

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**12. Ecological information**

Toxicity	no data
Persistence and degradability	no data
Bioaccumulative potential	no data
Mobility in soil	no data
Other adverse effects	no data

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**13. Disposal considerations****Disposal methods**

Consult local waste regulators for proper disposal.

In Japan, follow the Waste Disposal and Public Cleansing Law (Japan).

**Contaminated container**

Wash off with water, and consult local waste regulators for proper disposal.

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**14. Transport information**

Handle the package carefully so that it is not broken.

Keep the package under cool place during the transportation.

UN Number : no relevance

Class : no relevance

Packing class: Air; no relevance

Sea; no relevance

Land-road/Railway; no relevance

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**15. Regulatory information**

None in JAPAN.

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**16. Other information**

Date of preparation and Date of revision are described in the 1st page.

This SDS is written from the information available to the public, but does not guarantee the perfect Safety of this product.