

**Rhodium Bath for Pen-Plating JE28-1**

Revision date: 01.04.2019

Product code: 107

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

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**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Plating agents and metal surface treating agents

**1.3. Details of the supplier of the safety data sheet**

Company name:	Jentner Plating Technology GmbH	
Street:	Johann-Staib-Strasse 2	
Place:	D-75179 Pforzheim	
Telephone:	+49 (0)7231 418094 0	Telefax: +49 (0)7231 418094 77
e-mail:	info@jentner.de	
Contact person:	Department of Chemistry	
Internet:	www.jentner.de	
Responsible Department:	Poison Information Center of the University of Freiburg.	

**1.4. Emergency telephone number:**

0049 (0)761 19240 - 24 h german and english

**Further Information**

BfR Produktnummer: 6265827

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Germ cell mutagenicity: Muta. 2

Hazard Statements:

Causes severe skin burns and eye damage.

Causes serious eye damage.

Suspected of causing genetic defects.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

sulphuric acid 96 %

Rhodium (III) Sulfate

**Signal word:** Danger**Pictograms:****Hazard statements**

H314 Causes severe skin burns and eye damage.

H341 Suspected of causing genetic defects.

**Precautionary statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P363	Wash contaminated clothing before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER/doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	GHS Classification	
7664-93-9	sulphuric acid 96 %	15-25 %
	231-639-5	
	016-020-00-8	
	Skin Corr. 1A; H314	
10489-46-0	Rhodium (III) Sulfate	max. 3 %
	234-014-5	
	Met. Corr. 1, Muta. 2, Skin Corr. 1B, Eye Dam. 1, STOT SE 3; H290 H341 H314 H318 H335	

Full text of H and EUH statements: see section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Remove contaminated, saturated clothing immediately.  
Get medical advice/attention if you feel unwell.

**After contact with skin**

Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water.

**After contact with eyes**

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

**After ingestion**

If swallowed, immediately drink: Water. Call a physician in any case!

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Foam.Water.Extinguishing powder

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**5.3. Advice for firefighters**

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

Take up mechanically, placing in appropriate containers for disposal.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Handle and open container with care.

**Advice on protection against fire and explosion**

The product itself does not burn.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Only use containers specifically approved for the substance/product.

**7.3. Specific end use(s)**

Plating agents and metal surface treating agents

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7664-93-9	Sulphuric acid (mist)	-	0.05		TWA (8 h)	WEL

**Additional advice on limit values**

Does not contain substances above concentration limits fixing an occupational exposure limit.

**8.2. Exposure controls**

**Protective and hygiene measures**

Do not eat, drink, smoke or sneeze at the workplace.

Take off immediately all contaminated clothing.

Avoid contact with skin, eyes and clothes.

**Eye/face protection**

Tightly sealed safety glasses.

**Hand protection**

The material of the gloves should be enough tight and firm against the used substance.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

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**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	yellow-orange
Odour:	none
pH-Value (at 20 °C):	< 1

**Changes in the physical state**

Initial boiling point and boiling range:	not determined
Sublimation point:	not determined
Flash point:	not applicable

**Flammability**

Solid:	not applicable
Gas:	not applicable

**Explosive properties**

not explosive.

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable

**Oxidizing properties**

Not oxidising.

Vapour pressure:	not determined
Density (at 20 °C):	1,12 g/cm <sup>3</sup>
Water solubility:	highly soluble.

**Solubility in other solvents**

not determined

Viscosity / dynamic:	not determined
Flow time:	not determined
Vapour density:	not determined
Solvent separation test:	not applicable

**SECTION 10: Stability and reactivity**

**10.3. Possibility of hazardous reactions**

Corrosive to metals.

**10.4. Conditions to avoid**

No decomposition if used as directed.

**10.5. Incompatible materials**

Alkalis (alkalis), concentrated.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**

This mixture does not contain further substances fulfilling the criteria of hazard class "acute toxicity" according to CLP regulation.

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**Irritation and corrosivity**

Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

**Aspiration hazard**

Causes severe skin burns and eye damage.

**Additional information on tests**

Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Verschlucken.

**SECTION 12: Ecological information**

**12.1. Toxicity**

This mixture does not contain further substances fulfilling the criteria of hazard class "acute toxicity" according to CLP regulation.

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential**

No data available

**12.4. Mobility in soil**

If product enters soil, it will be mobile and may contaminate groundwater.

**12.5. Results of PBT and vPvB assessment**

This mixture does not contain any substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC or Regulation (EC) No 1272/2008, assigned a Community workplace exposure limit, classified as PBT/vPvB or included in the Candidate List.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Advice on disposal**

Can be reused after processing.

**Waste disposal number of waste from residues/unused products**

110112 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); aqueous rinsing liquids other than those mentioned in 11 01 11

**Contaminated packaging**

Contaminated packages must be completely emptied and can be re-used following proper cleaning.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number:** UN 2796  
**14.2. UN proper shipping name:** Sulphuric acid  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8



Classification code: C1  
Limited quantity: 1 L  
Excepted quantity: E2

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Transport category: 2  
 Hazard No: 80  
 Tunnel restriction code: E

**Other applicable information (land transport)**

Transport category: 2

**Inland waterways transport (ADN)**

**14.1. UN number:** UN 2796  
**14.2. UN proper shipping name:** Sulphuric acid  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Classification code: C1  
 Limited quantity: 1 L  
 Excepted quantity: E2

**Marine transport (IMDG)**

**14.1. UN number:** UN 2796  
**14.2. UN proper shipping name:** Sulphuric acid  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Special Provisions: -  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 EmS: F-A, S-B

**Other applicable information (marine transport)**

Special provisions: -

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number:** UN 2796  
**14.2. UN proper shipping name:** Sulphuric acid  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Limited quantity Passenger: 0.5 L  
 Passenger LQ: Y840  
 Excepted quantity: E2  
 IATA-packing instructions - Passenger: 851  
 IATA-max. quantity - Passenger: 1 L  
 IATA-packing instructions - Cargo: 855

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IATA-max. quantity - Cargo:

30 L

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**Information according to 2012/18/EU Not subject to 2012/18/EU (SEVESO III)  
(SEVESO III):**National regulatory information**

Water contaminating class (D): 2 - clearly water contaminating

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 2,9,12,15.

**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)

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

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

Classification	Classification procedure
Skin Corr. 1A; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Muta. 2; H341	Calculation method

**Relevant H and EUH statements (number and full text)**

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.  
H341 Suspected of causing genetic defects.

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*