

**Issue Date:** 01-May-2003

**Revision Date:** 15-Jan-2016

**Version** 2

## 1. IDENTIFICATION

**Product Identifier**
**Product Name** Gesswein White Rhodium Plating Solution

**Other means of identification**
**Product Codes** 2100978, 2101000, 2101002, 2101003, 2101005, 2101010, 2101015, 2101016, 2101017

**UN/ID No** UN1760

**Recommended use of the chemical and restrictions on use**
**Recommended Use** Plating solution.

**Details of the supplier of the safety data sheet**
**Manufacturer Address**

 Davis-K Products Co., Inc.  
 924 McDonald Avenue  
 Brooklyn, NY 11218

**Emergency Telephone Number**
**Company Phone Number** 1-718-851-3100  
**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)  
 1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Clear reddish solution

**Physical State** Liquid

**Odor** No odor

**Classification**

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1

**Signal Word**
**Danger**
**Hazard Statements**

Causes severe skin burns and eye damage


**Precautionary Statements - Prevention**

 Use personal protective equipment as required  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a poison center or doctor/physician

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Unknown Acute Toxicity**

5% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Sulfuric Acid	7664-93-9	5.0-49
Rhodium Sulfate	Proprietary	1.0-10.0
Proprietary Additive	Proprietary	0.1-6.0
Proprietary Additive	Proprietary	<0.5

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

### 4. FIRST-AID MEASURES

**First Aid Measures**

<b>General Advice</b>	If exposed or concerned: Get medical advice/attention.
<b>Eye Contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention/advice.
<b>Skin Contact</b>	Wash off immediately with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. Get medical attention.
<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Rinse mouth. Drink large amounts of water. Do not induce vomiting. Call a physician or poison control center immediately.

**Most important symptoms and effects**

<b>Symptoms</b>	May cause eye burns and permanent eye damage. Prolonged contact may even cause severe skin irritation or mild burn. Contact will cause irritation and redness to exposed areas.
-----------------	---

**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically. Medical conditions aggravated by exposure: respiratory and cardiovascular illness and dermatitis.
---------------------------	--

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** Not determined.

### Specific Hazards Arising from the Chemical

Product does not burn.

**Hazardous Combustion Products** Oxides of sulfur.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Use personal protective equipment as required.

### Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** Small spills may be neutralized with soda ash. Flush area with water. For waste disposal, see section 13 of the SDS.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on Safe Handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Wash thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Use only in well-ventilated areas. Whenever possible, wash equipment with clean water before repair.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

**Incompatible Materials** Caustics. Organic materials.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfuric Acid 7664-93-9	TWA: 0.2 mg/m <sup>3</sup> thoracic fraction	TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup>	IDLH: 15 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>
Rhodium Sulfate	TWA: 1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> fume (vacated) TWA: 0.1 mg/m <sup>3</sup> fume	IDLH: 100 mg/m <sup>3</sup> fume TWA: 0.1 mg/m <sup>3</sup> fume
Proprietary Additive	STEL: 3 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup> (vacated) STEL: 3 mg/m <sup>3</sup>	IDLH: 1000 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Controls** Local exhaust ventilation recommended.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Chemical safety goggles/face shield.

**Skin and Body Protection** Wear rubber or plastic gloves. Aprons.

**Respiratory Protection** Wear a NIOSH-approved respirator in a spill.

**General Hygiene Considerations** Wash thoroughly with soap and water after handling. Wash contaminated clothing before reuse.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

<b>Physical State</b>	Liquid	<b>Odor</b>	No odor
<b>Appearance</b>	Clear reddish solution	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Reddish		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	Acidic	
<b>Melting Point/Freezing Point</b>	Not determined	
<b>Boiling Point/Boiling Range</b>	Not determined	
<b>Flash Point</b>	None	
<b>Evaporation Rate</b>	Not available	
<b>Flammability (Solid, Gas)</b>	n/a-liquid	
<b>Upper Flammability Limits</b>	Not applicable	
<b>Lower Flammability Limit</b>	Not applicable	
<b>Vapor Pressure</b>	Not available	
<b>Vapor Density</b>	Not available	
<b>Specific Gravity</b>	1.025-1.40	(1=Water)
<b>Water Solubility</b>	Completely soluble	
<b>Solubility in other solvents</b>	Not determined	
<b>Partition Coefficient</b>	Not determined	
<b>Auto-ignition Temperature</b>	Not applicable	
<b>Decomposition Temperature</b>	Not determined	
<b>Kinematic Viscosity</b>	Not determined	
<b>Dynamic Viscosity</b>	Not determined	
<b>Explosive Properties</b>	Not determined	
<b>Oxidizing Properties</b>	Not determined	

**10. STABILITY AND REACTIVITY****Reactivity**

Not reactive under normal conditions.

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Conditions to Avoid**

Keep out of reach of children.

**Incompatible Materials**

Caustics. Organic materials.

**Hazardous Decomposition Products**

Sulfur oxides.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information****Eye Contact** Causes severe eye damage.**Skin Contact** Causes severe skin burns.**Inhalation** Do not inhale.**Ingestion** Do not taste or swallow.**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sulfuric Acid 7664-93-9	= 2140 mg/kg ( Rat )	-	= 510 mg/m <sup>3</sup> ( Rat ) 2 h
Proprietary Additive	= 1530 mg/kg ( Rat )	= 2740 mg/kg ( Rabbit )	> 850 mg/m <sup>3</sup> ( Rat ) 1 h

**Information on physical, chemical and toxicological effects****Symptoms** Please see section 4 of this SDS for symptoms.**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Carcinogenicity** IARC has classified "strong inorganic acid mist containing sulfuric acid" as a Category 1 carcinogen, substance that is carcinogenic to humans. This classification does not apply to liquid forms of sulfuric acid. Inorganic mist is not generated under normal use of this product.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sulfuric Acid 7664-93-9	A2	Group 1	Known	X

**Legend****ACGIH (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

**NTP (National Toxicology Program)**

Known - Known Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Numerical measures of toxicity**

Not determined

**Unknown Acute Toxicity** 5% of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sulfuric Acid 7664-93-9		500: 96 h Brachydanio rerio mg/L LC50 static		29: 24 h Daphnia magna mg/L EC50
Proprietary Additive		3 - 3.5: 96 h Gambusia affinis mg/L LC50		4.6: 12 h Daphnia magna mg/L EC50

### Persistence/Degradability

Not determined.

### Bioaccumulation

Not determined.

### Mobility

Not determined

### Other Adverse Effects

Not determined

## 13. DISPOSAL CONSIDERATIONS

### Waste Treatment Methods

<b>Disposal of Wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated Packaging</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.

### California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Sulfuric Acid 7664-93-9	Toxic Corrosive
Proprietary Additive	Corrosive

## 14. TRANSPORT INFORMATION

### Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

### DOT

<b>UN/ID No</b>	UN1760
<b>Proper Shipping Name</b>	Corrosive liquid, n.o.s. (sulfuric acid)
<b>Hazard Class</b>	8
<b>Packing Group</b>	II

### IATA

<b>UN/ID No</b>	UN1760
<b>Proper Shipping Name</b>	Corrosive liquid, n.o.s. (sulfuric acid)
<b>Hazard Class</b>	8
<b>Packing Group</b>	II

**IMDG**

UN/ID No UN1760  
 Proper Shipping Name Corrosive liquid, n.o.s. (sulfuric acid)  
 Hazard Class 8  
 Packing Group II

## 15. REGULATORY INFORMATION

**International Inventories**

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Sulfuric Acid	Present	X		Present		Present	X	Present	X	X
Rhodium Sulfate	Present	X		Present			X	Present	X	X
Proprietary Additive	Present	X		Present		Present	X	Present	X	X

**Legend:**

*TSCA* - United States Toxic Substances Control Act Section 8(b) Inventory

*DSL/NDSL* - Canadian Domestic Substances List/Non-Domestic Substances List

*EINECS/ELINCS* - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

*ENCS* - Japan Existing and New Chemical Substances

*IECSC* - China Inventory of Existing Chemical Substances

*KECL* - Korean Existing and Evaluated Chemical Substances

*PICCS* - Philippines Inventory of Chemicals and Chemical Substances

*AICS* - Australian Inventory of Chemical Substances

**US Federal Regulations****CERCLA**

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sulfuric Acid 7664-93-9	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ
Proprietary Additive	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Sulfuric Acid - 7664-93-9	7664-93-9	5.0-49	1.0

**CWA (Clean Water Act)**

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sulfuric Acid	1000 lb			X
Proprietary Additive	5000 lb			X

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Sulfuric Acid - 7664-93-9	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sulfuric Acid 7664-93-9	X	X	X
Rhodium Sulfate	X	X	X
Proprietary Additive	X	X	X

**16. OTHER INFORMATION****NFPA****Health Hazards**

Not determined

**Flammability**

Not determined

**Instability**

Not determined

**Special Hazards**

Not determined

**HMIS****Health Hazards**

Not determined

**Flammability**

Not determined

**Physical Hazards**

Not determined

**Personal Protection**

Not determined

**Issue Date:**

01-May-2003

**Revision Date:**

15-Jan-2016

**Revision Note:**

New information

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**