

RHODUNA® Diamond Bright Rhodium Concentrate

Version 1.0

AU

SDS Number: 300000002564

Revision Date: 26.06.2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : RHODUNA® Diamond Bright Rhodium Concentrate

Material number : 000000574121400111

Product code : 300000002564

Manufacturer or supplier's details

Company : Twin Plaza Metals PTY LTD

Address : Level 1, 155 Castlereagh Street
Sydney, New South Wales 2000 Australia

Telephone : 02 9264 1667

E-mail address : sales@twinplaza.com

Poison Center

Telephone : 131126 (NATIONAL CALLS)

Hours of operation : 24HRS

Supplier

Emergency telephone number : Australia: 02 8014 4558

Hours of operation : This telephone number is available 24 hours per day, 7 days
per week.**Recommended use of the chemical and restrictions on use**

Recommended use : Electroplating

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SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Corrosive to metals : Category 1

Skin corrosion/irritation : Category 1

Serious eye damage/eye irritation : Category 1

Germ cell mutagenicity : Category 2

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H341 Suspected of causing genetic defects.

Precautionary statements :

Prevention:

P201 Obtain special instructions before use.

P264 Wash skin thoroughly after handling.

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

P281 Use personal protective equipment as required.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338 + P310 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.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P390 Absorb spillage to prevent material damage.

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Additional Labelling

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 4 %

Other hazards which do not result in classification

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Sulphuric acid	7664-93-9	<=30
dirhodium trisulphate	10489-46-0	<=4

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and get medical attention immediately.
- In case of skin contact : If on skin, rinse well with water.
If on clothes, remove clothes.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Wash contaminated clothing before reuse.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
Remove contact lenses.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Protect unharmed eye.
Keep eye wide open while rinsing.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms : Skin contact may provoke the following symptoms:

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and effects, both acute and delayed

Burn
corrosive effects
Redness
In case of eye contact
Excessive lachrymation

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray. In the presence of fire, note caustic and corrosive effect.
- Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Sulphur oxides
Metal oxides
Sulphuric acid
- Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.
- Hazchem Code : 2X

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. Evacuate personnel to safe areas.
- Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Neutralize with chalk, alkali solution or ammonia. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

SECTION 7. HANDLING AND STORAGE

- Advice on protection against : Normal measures for preventive fire protection.

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fire and explosion

- Advice on safe handling : Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
- Hygiene measures : Avoid contact with skin, eyes and clothing.
General industrial hygiene practice.
Wash hands before breaks and immediately after handling the product.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.
To maintain product quality, do not store in heat or direct sunlight.
- Materials to avoid : Keep away from strong bases.
Keep away from metals.
- Further information on storage stability : Keep in a dry place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Sulphuric acid	7664-93-9	TWA	1 mg/m ³	AU OEL
		STEL	3 mg/m ³	AU OEL
dirhodium trisulphate	10489-46-0	TWA (Thoracic fraction)	0.2 mg/m ³	ACGIH
		TWA	0.01 mg/m ³ (Rhodium)	AU OEL
		TWA	0.01 mg/m ³ (Rhodium)	ACGIH

- Engineering measures** : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

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Hand protection	:	
Material	:	Nitrile rubber
Break through time	:	> 30 min
Glove thickness	:	0.40 mm
Eye protection	:	Wear face-shield and protective suit for abnormal processing problems. Wear safety glasses with side shields or goggles.
Skin and body protection	:	Impervious clothing Footwear protecting against chemicals

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	brown
Odour	:	characteristic
pH	:	0 - 1
Flash point	:	does not flash
Flammability (liquids)	:	Does not sustain combustion.
Vapour pressure	:	not determined
Relative density	:	1.18 - 1.25
Density	:	1.18 - 1.25 g/cm ³
Solubility(ies)	:	
Water solubility	:	completely miscible
Auto-ignition temperature	:	not determined
Metal corrosion rate	:	Corrosive to metals

SECTION 10. STABILITY AND REACTIVITY

Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Strong bases Alkali metals

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Alkaline earth metals
Metals

Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Components:****Sulphuric acid:**

Acute oral toxicity : LD50 (Rat): 2,140 mg/kg

Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal toxicity

dirhodium trisulphate:

Acute oral toxicity : Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation**Product:**

Remarks : Extremely corrosive and destructive to tissue.

Components:**Sulphuric acid:**Result : Corrosive after 3 minutes or less of exposure
Remarks : data waiving in REACH dossier**Serious eye damage/eye irritation****Product:**

Remarks : May cause irreversible eye damage.

Components:**Sulphuric acid:**Species : Rabbit
Result : Irreversible effects on the eye

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Respiratory or skin sensitisation**Product:**

Remarks : No data available

Chronic toxicity**Germ cell mutagenicity****Product:**

Genotoxicity in vitro : Remarks: No data available

Components:**Sulphuric acid:**

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium TA98, TA100, TA1535, TA1537
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: Based on read across from structural related substance

Test Type: Ames test
Test system: Salmonella typhimurium TA97, TA98, TA100, TA102, TA 1535
Metabolic activation: with and without metabolic activation
Method: No guideline followed
Result: negative
GLP: no

Carcinogenicity**Product:**

Remarks : No data available

Components:**Sulphuric acid:**

Species : Rat, male and female
Application Route : oral (gavage)
Method : No guideline followed
Symptoms : Some evidence of a weak local carcinogenic activity
GLP : no

Species : Mouse, male and female
Application Route : oral (gavage)
Method : No guideline followed

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Symptoms : Some evidence of a weak local carcinogenic activity
GLP : no

Reproductive toxicity**Product:**

Effects on fertility : Remarks: No data available

Components:**Sulphuric acid:**

Effects on foetal development : Test Type: Developmental toxicity study
Species: Rabbit
Strain: NZW
Application Route: inhalation (aerosol)
Dose: 0, 5, 20 mg/m³
Duration of Single Treatment: 12 d
General Toxicity Maternal: NOAEC: 5.7 mg/m³
Developmental Toxicity: NOAEC: 19.3 mg/m³
Method: OECD Test Guideline 414
GLP: no

Test Type: Developmental toxicity study
Species: Mouse
Strain: CF1
Application Route: inhalation (aerosol)
Dose: 0, 5, 20 mg/m³
Duration of Single Treatment: 9 d
General Toxicity Maternal: NOAEC: 5.7 mg/m³
Developmental Toxicity: NOAEC: 19.3 mg/m³
Method: OECD Test Guideline 414
GLP: no

STOT - single exposure**Product:**

Remarks : No data available

STOT - repeated exposure**Product:**

Remarks : No data available

Repeated dose toxicity**Components:****Sulphuric acid:**

Species : Rat, female
: 0.3 mg/m³
Application Route : inhalation (aerosol)

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Exposure time : 28 d
Number of exposures : 5 d/w
Dose : 0, 0.2, 1.0, 5.0 mg/m³
Method : OECD Test Guideline 412
GLP : yes

Further information**Product:**

Remarks : No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:****Components:****Sulphuric acid:**

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 16 mg/l
Exposure time: 96 h
Test Type: static test
GLP: no
Remarks: Fresh water

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes
Remarks: Fresh water

Toxicity to fish (Chronic toxicity) : NOEC (Jordanella floridae (flagfish)): 0.025 mg/l
Exposure time: 65 days
GLP: no
Remarks: Fresh water

dirhodium trisulphate:**Ecotoxicology Assessment**

Acute aquatic toxicity : No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

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Other adverse effects
Product:

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods

Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION
International Regulations
UNRTDG

UN number : UN 3264
Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(Sulphuric acid, dirhodium trisulfate)
Class : 8
Packing group : II
Labels : 8



Marine pollutant : no

IATA-DGR

UN/ID No. : UN 3264
Proper shipping name : Corrosive liquid, acidic, inorganic, n.o.s.
(Sulphuric acid, dirhodium trisulfate)
Class : 8
Packing group : II
Labels : Corrosive



Packing instruction (cargo aircraft) : 855

SAFETY DATA SHEET



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Maximum quantity : 30.00 L
Packing instruction (passenger aircraft) : 851
Maximum quantity : 1.00 L

IMDG-Code

UN number : UN 3264
Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulphuric acid, dirhodium trisulfate)
Class : 8
Packing group : II
Labels : 8



EmS Code : F-A, S-B
Marine pollutant : no
IMDG segregation code : Acids

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

ADG

UN number : UN 3264
Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Marine pollutant : no
Class : 8
Packing group : II
Labels : 8



Hazchem Code : 2X

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Standard for the Uniform Scheduling of Medicines and Poisons : Schedule 6

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Prohibition/Licensing Requirements : There is no applicable prohibition or notification/licensing requirements, including for carcinogens under Commonwealth, State or Territory legislation.

The components of this product are reported in the following inventories:

CH INV : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

NZIoC : Not in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

ISHL : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

TCSI : On the inventory, or in compliance with the inventory

TSCA : On TSCA Inventory

SECTION 16. OTHER INFORMATION

Revision Date : 26.06.2019

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

AU OEL : Australia. Workplace Exposure Standards for Airborne Contaminants.

ACGIH / TWA : 8-hour, time-weighted average

AU OEL / TWA : Exposure standard - time weighted average

AU OEL / STEL : Exposure standard - short term exposure limit

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response

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Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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.

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