

## RHODUNA® Diamond Bright Additive Solution

Version 2.0

DE

SDS Number: 300000008441

Revision Date: 30.03.2023

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier : RHODUNA® Diamond Bright Additive Solution  
Product code : 300000008441  
Unique Formula Identifier (UFI) : NAH2-R010-7002-36CR

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub-stance/Mixture : Electroplating.

#### 1.3 Details of the supplier of the safety data sheet

Company : Agosi AG  
Kanzlerstrasse 17  
75175 Pforzheim  
Germany  
E-mail address of person responsible for the SDS : EHS-Info@agosi.de

#### 1.4 Emergency telephone number

##### Poison Center

Telephone : +49 30 192 40  
Hours of operation : 24HRS

##### Supplier

Emergency telephone number : For transport in Europe, Central- and South America, Israel and Africa (Non-Arabic speaking countries): (+32) 3 213 15 70  
For transport in the Middle East (Israel excluded) & Arabic speaking Africa: (+32) 3 213 33 79  
For transport in the USA and Canada: (+1)-877 986 4267  
For transport in Asian and the Pacific (China excluded): (+65) 62 64 78 36  
For transport in China: (+86) 0532 8388 9090

Hours of operation : This telephone number is available 24 hours per day, 7 days per week.

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

Eye irritation, Category 2

H319: Causes serious eye irritation.

#### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**

P264 Wash skin thoroughly after handling.

P280 Wear eye protection/ face protection.

**Response:**

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

#### Additional Labelling

The following percentage of the mixture consists of ingredient(s) with unknown acute oral toxicity: 1,5 %

The following percentage of the mixture consists of ingredient(s) with unknown acute inhalation toxicity: 5 %

The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 1,5 %

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 1,5 %

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

##### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
sodium dodecyl sulphate	151-21-3 205-788-1	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412  specific concentration limit Eye Irrit. 2; H319 10 - 20 % Eye Dam. 1; H318 20 - 100 %  Acute toxicity esti- mate  Acute oral toxicity: 1.200 mg/kg	<= 3,5
sodium hydrogensulphate	7681-38-1 231-665-7 016-046-00-X	Eye Dam. 1; H318	<= 1,5

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : Move out of dangerous area.  
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.  
If skin irritation persists, call a physician.  
Wash contaminated clothing before reuse.
- In case of eye contact : Remove contact lenses.  
In the case of contact with eyes, rinse immediately with plenty

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of water and seek medical advice.  
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 give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Skin contact may provoke the following symptoms:  
Redness  
In case of eye contact  
Excessive lachrymation

### 4.3 Indication of any immediate medical attention and special treatment needed

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

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

Unsuitable extinguishing media : High volume water jet

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.  
In the presence of fire, note caustic and corrosive effect.

Hazardous combustion products : Hazardous decomposition products due to incomplete combustion  
Sulphuric acid

### 5.3 Advice for firefighters

Special protective equipment for firefighters : No special protective equipment required.

Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

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### 6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.

### 6.3 Methods and material for containment and cleaning up

Methods for 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).

### 6.4 Reference to other sections

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : General industrial hygiene practice. Wash hands before breaks and at the end of workday.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards. To maintain product quality, do not store in heat or direct sunlight.

Storage class (TRGS 510) : 12, Non Combustible Liquids

Further information on storage stability : Keep in a dry place.  
No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
sodium dodecyl sulphate	Workers	Inhalation	Long-term systemic effects	285 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	4060 mg/kg

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	Consumers	Inhalation	Long-term systemic effects	85 mg/m3
	Consumers	Dermal	Long-term systemic effects	2440 mg/kg
	Consumers	Oral	Long-term systemic effects	24 mg/kg

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
sodium dodecyl sulphate	Fresh water	0,176 mg/l
	Remarks:Assessment Factors	
	Marine water	0,018 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	1,35 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	6,97 mg/kg dry weight (d.w.)
	Remarks:Equilibrium partitioning	
	Marine sediment	0,697 mg/kg dry weight (d.w.)
	Remarks:Equilibrium partitioning	
	Soil	1,29 mg/kg dry weight (d.w.)
	Remarks:Equilibrium partitioning	
sodium hydrogensulphate	Fresh water	11,09 mg/l
	Marine water	1,1 mg/l
	Sewage treatment plant	800 mg/l
	Fresh water sediment	40,2 mg/kg dry weight (d.w.)
	Marine sediment	4,02 mg/kg dry weight (d.w.)
	Soil	1,54 mg/kg dry weight (d.w.)

## 8.2 Exposure controls

### Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

### Personal protective equipment

Eye/face protection : Wear safety glasses with side shields or goggles.

#### Hand protection

Material : Nitrile rubber  
Break through time : > 30 min  
Glove thickness : 0,40 mm

Skin and body protection : Footwear protecting against chemicals

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state : liquid

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Colour	:	light yellow
Odour	:	characteristic
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	does not flash
Auto-ignition temperature	:	not determined
pH	:	ca. 3,1 Concentration: 100 %
Viscosity		
Viscosity, kinematic	:	No data available
Solubility(ies)		
Water solubility	:	completely miscible
Partition coefficient: n- octanol/water	:	No data available
Vapour pressure	:	not determined
Density	:	ca. 1,00 g/cm <sup>3</sup>

### 9.2 Other information

Flammability (liquids) : Does not sustain combustion.

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable at normal ambient temperature and pressure.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.

### 10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

### 10.5 Incompatible materials

### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

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**SECTION 11: Toxicological information**

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute toxicity**

**Product:**

- Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg  
Method: Calculation method
- Acute inhalation toxicity : Remarks: No data available
- Acute dermal toxicity : Remarks: No data available

**Components:**

**sodium dodecyl sulphate:**

- Acute oral toxicity : LD50 (Rat, male and female): 1.200 mg/kg  
Method: OECD Test Guideline 401  
GLP: no
- Acute inhalation toxicity : Assessment: No data available  
Remarks: data waiving in REACH dossier
- Acute dermal toxicity : LD50 Dermal (Rat, male and female): > 5.000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

**sodium hydrogensulphate:**

- Acute oral toxicity : Assessment: No data available  
Remarks: data waiving in REACH dossier
- Acute inhalation toxicity : Assessment: No data available  
Remarks: data waiving in REACH dossier
- Acute dermal toxicity : Assessment: No data available  
Remarks: data waiving in REACH dossier

**Skin corrosion/irritation**

**Components:**

**sodium dodecyl sulphate:**

- Species : Rabbit
- Exposure time : 24 h
- Result : Skin irritation

**Serious eye damage/eye irritation**

**Components:**

**sodium dodecyl sulphate:**



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Species : Rabbit  
Result : Corrosive

### sodium hydrogensulphate:

Result : Irreversible effects on the eye

### Respiratory or skin sensitisation

#### Product:

Remarks : No data available

### Germ cell mutagenicity

#### Product:

Genotoxicity in vitro : Remarks: No data available

### Carcinogenicity

#### Product:

Remarks : No data available

### Reproductive toxicity

#### Product:

Effects on fertility : Remarks: No data available

### STOT - single exposure

#### Product:

Remarks : No data available

### STOT - repeated exposure

#### Product:

Remarks : No data available

## 11.2 Information on other hazards

### Endocrine disrupting properties

#### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### Further information

#### Product:

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Remarks : No data available

### SECTION 12: Ecological information

#### 12.1 Toxicity

##### Components:

##### **sodium dodecyl sulphate:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 29 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
GLP: no  
Remarks: Fresh water

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 120 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: Fresh water

##### **sodium hydrogensulphate:**

##### **Ecotoxicology Assessment**

Acute aquatic toxicity : No data available

#### 12.2 Persistence and degradability

No data available

#### 12.3 Bioaccumulative potential

##### Components:

##### **sodium dodecyl sulphate:**

Partition coefficient: n-octanol/water : log Pow: -2,03

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

##### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### 12.6 Endocrine disrupting properties

##### Product:

Assessment : The substance/mixture does not contain components consid-

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ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

**Product:**

Additional ecological information : No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Dispose of in accordance with the European Directives on waste and hazardous waste.  
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.  
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

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 contaminated packaging as if unused product.  
Do not re-use empty containers.

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## SECTION 14: Transport information

### 14.1 UN number

ADN : Not regulated as a dangerous good  
ADR : Not regulated as a dangerous good  
RID : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good  
IATA : Not regulated as a dangerous good

### 14.2 UN proper shipping name

ADN : Not regulated as a dangerous good  
ADR : Not regulated as a dangerous good  
RID : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good

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IATA : Not regulated as a dangerous good

### 14.3 Transport hazard class(es)

ADN : Not regulated as a dangerous good

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

### 14.4 Packing group

ADN : Not regulated as a dangerous good

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA (Cargo) : Not regulated as a dangerous good

IATA (Passenger) : Not regulated as a dangerous good

### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

Not applicable

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 75 , 3

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : If you intend to use this product as tattoo ink, please contact your vendor.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EC) No 649/2012 of the European Parlia- : Not applicable

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ment and the Council concerning the export and import  
of dangerous chemicals

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable

Water hazard class (Germany) : WGK 1 slightly hazardous to water  
Classification according to AwSV, Annex 1 (5.2)

TA Luft List (Germany) : 5.2.1: Total dust:  
Not applicable  
5.2.2: Inorganic substances in powdered form:  
Not applicable  
5.2.4: Inorganic substances in gaseous form:  
Not applicable  
5.2.5: Organic Substances:  
Not applicable  
5.2.7.1.1: Carcinogenic substance:  
Not applicable  
5.2.7.1.1: Quartz fine dust PM4:  
Not applicable  
5.2.7.1.1: Formaldehyde:  
Not applicable  
5.2.7.1.1: fibres:  
Not applicable  
5.2.7.1.2: Germ cell mutagens:  
Not applicable  
5.2.7.1.3: Substances toxic to reproduction:  
Not applicable  
5.2.7.2: Poorly degradable, easily enrichable and highly toxic  
organic substances:  
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial  
emissions (integrated pollution prevention and control)  
Not applicable

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

TSCA : All substances listed as active on the TSCA inventory

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

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

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

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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
NZIoC	:	Not in compliance with the inventory
CH INV	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TECI	:	On the inventory, or in compliance with the inventory

### 15.2 Chemical safety assessment

#### SECTION 16: Other information

##### Full text of H-Statements

H302	:	Harmful if swallowed.
H315	:	Causes skin irritation.
H318	:	Causes serious eye damage.
H412	:	Harmful to aquatic life with long lasting effects.

##### Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Skin Irrit.	:	Skin irritation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of

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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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Eye Irrit. 2

H319

#### Classification procedure:

Calculation method

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.

DE / EN

## Rhoduna Diamond Bright Rhodiumkonzentrat (2 g Rh/100 ml)

Version 3.0

DE

SDS Number: 300000008287

Revision Date: 30.03.2023

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier : Rhoduna Diamond Bright Rhodiumkonzentrat (2 g Rh/100 ml)  
Product code : 300000008287  
Unique Formula Identifier (UFI) : 7CG2-50EM-U00M-UEY1

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub-stance/Mixture : Electroplating.

#### 1.3 Details of the supplier of the safety data sheet

Company : Agosi AG  
Kanzlerstrasse 17  
75175 Pforzheim  
Germany  
E-mail address of person responsible for the SDS : EHS-Info@agosi.de

#### 1.4 Emergency telephone number

##### Poison Center

Telephone : +49 30 192 40  
Hours of operation : 24HRS

##### Supplier

Emergency telephone number : For transport in Europe, Central- and South America, Israel and Africa (Non-Arabic speaking countries): (+32) 3 213 15 70  
For transport in the Middle East (Israel excluded) & Arabic speaking Africa: (+32) 3 213 33 79  
For transport in the USA and Canada: (+1)-877 986 4267  
For transport in Asian and the Pacific (China excluded): (+65) 62 64 78 36  
For transport in China: (+86) 0532 8388 9090

Hours of operation : This telephone number is available 24 hours per day, 7 days per week.



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Version 3.0

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**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification (REGULATION (EC) No 1272/2008)**

Corrosive to metals, Category 1	H290: May be corrosive to metals.
Skin corrosion, Category 1	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Germ cell mutagenicity, Category 2	H341: Suspected of causing genetic defects.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

**2.2 Label elements**

**Labelling (REGULATION (EC) No 1272/2008)**

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.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

**Response:**

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.  
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/ doctor.  
P391 Collect spillage.

**Hazardous components which must be listed on the label:**

sulphuric acid  
dirrhodium trisulphate

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### Additional Labelling

The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 34 %

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
sulphuric acid	7664-93-9 231-639-5 016-020-00-8 01-2119458838-20	Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318  specific concentration limit Skin Corr. 1A; H314 ≥ 15 % Skin Irrit. 2; H315 5 - < 15 % Eye Irrit. 2; H319 5 - < 15 %	≤ 30
dirhodium trisulphate	10489-46-0 234-014-5 01-2120760608-47	Met. Corr. 1; H290 Skin Corr. 1B; H314 Eye Dam. 1; H318 Muta. 2; H341 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071  M-Factor (Acute aquatic toxicity): 1	≤ 4

For explanation of abbreviations see section 16.

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**SECTION 4: First aid measures**

**4.1 Description of 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.

**4.2 Most important symptoms and effects, both acute and delayed**

- Symptoms : Skin contact may provoke the following symptoms:  
Burn  
corrosive effects  
Redness  
In case of eye contact  
Excessive lachrymation

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

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing : High volume water jet

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media

### 5.2 Special hazards arising from the substance or mixture

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  
Hazardous decomposition products due to incomplete combustion

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : 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.

---

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.  
Evacuate personnel to safe areas.

### 6.2 Environmental precautions

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.

### 6.3 Methods and material for containment and cleaning up

Methods for 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).

### 6.4 Reference to other sections

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.

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For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Avoid contact with skin, eyes and clothing. General industrial hygiene practice. Wash hands before breaks and immediately after handling the product.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully re-sealed 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.

Advice on common storage : Keep away from strong bases.  
Keep away from metals.

Storage class (TRGS 510) : 8B, Non-combustible, corrosive hazardous materials

Further information on storage stability : Keep in a dry place.  
No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
sulphuric acid	7664-93-9	AGW (Inhalable fraction)	0,1 mg/m <sup>3</sup>	DE TRGS 900
		Peak-limit: excursion factor (category): 1;(I)		
		Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child		
		TWA (Mist)	0,05 mg/m <sup>3</sup>	2009/161/EU
		Further information: Indicative		
		TWA (Thoracic particulate matter)	0,2 mg/m <sup>3</sup>	ACGIH

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
sulphuric acid	Workers	Inhalation	Acute local effects	0,1 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local ef-	0,05 mg/m <sup>3</sup>

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			fects	
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**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:**

Substance name	Environmental Compartment	Value
sulphuric acid	Fresh water	0,0025 mg/l
	Sediment	0,002 mg/l
	Marine water	0,00025 mg/l
	Marine sediment	0,002 mg/l
	Sewage treatment plant	8,8 mg/l

**8.2 Exposure controls**

**Engineering measures**

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

**Personal protective equipment**

Eye/face protection : Wear face-shield and protective suit for abnormal processing problems.  
Wear safety glasses with side shields or goggles.

Hand protection

Material : Nitrile rubber  
Break through time : > 30 min  
Glove thickness : 0,40 mm

Skin and body protection : Impervious clothing  
Footwear protecting against chemicals

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.

**SECTION 9: Physical and chemical properties**

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

Physical state : liquid

Colour : dark brown

Odour : characteristic

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point : does not flash

Auto-ignition temperature : not determined

pH : ca. 0,5  
Concentration: 100 %

Viscosity

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Viscosity, kinematic	:	No data available
Solubility(ies) Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	not determined
Density	:	ca. 1,21 g/cm <sup>3</sup>

### 9.2 Other information

Flammability (liquids)	:	Does not sustain combustion.
Metal corrosion rate	:	Corrosive to metals

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable at normal ambient temperature and pressure.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.

### 10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

### 10.5 Incompatible materials

Materials to avoid : Strong bases  
Alkali metals  
Alkaline earth metals  
Metals

### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

---

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity**

**Components:**

**sulphuric acid:**

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Acute oral toxicity      :    LD50 (Rat, male and female): > 5.000 mg/kg  
GLP: no

Acute inhalation toxicity      :    LC50 (Rat, male and female): 0,375 mg/l  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
GLP: no

Acute dermal toxicity      :    Assessment: No data available  
Remarks: data waiving in REACH dossier

### **dirhodium trisulphate:**

Acute oral toxicity      :    Assessment: The substance or mixture has no acute oral toxicity  
Remarks: data waiving in REACH dossier

Acute inhalation toxicity      :    Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: data waiving in REACH dossier

Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity      :    Assessment: No data available  
Remarks: data waiving in REACH dossier

### **Skin corrosion/irritation**

#### **Components:**

##### **sulphuric acid:**

Result      :    Corrosive after 3 minutes or less of exposure  
Remarks      :    data waiving in REACH dossier

##### **dirhodium trisulphate:**

Species      :    in vitro membrane barrier  
Exposure time      :    1 h  
Assessment      :    Causes burns.  
Method      :    OECD Test Guideline 435  
Result      :    Corrosive after 3 minutes to 1 hour of exposure  
GLP      :    yes

### **Serious eye damage/eye irritation**

#### **Components:**

##### **sulphuric acid:**

Remarks      :    data waiving in REACH dossier  
Not classified due to data which are conclusive although insufficient for classification.

##### **dirhodium trisulphate:**

Assessment      :    Corrosive



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Remarks : data waiving in REACH dossier

**Respiratory or skin sensitisation**

**Product:**

Remarks : No data available

**Components:**

**sulphuric acid:**

Exposure routes : Skin contact  
Remarks : data waiving in REACH dossier

Exposure routes : Inhalation  
Remarks : data waiving in REACH dossier

**dirhodium trisulphate:**

Remarks : No data available

**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

Genotoxicity in vivo : Remarks: data waiving in REACH dossier

**dirhodium trisulphate:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Test system: Salmonella typhimurium TA98, TA100, TA102, TA 1535, TA1537

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Concentration: 160,300,625,1250,2500,5000µg/p  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: positive  
GLP: yes

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse (male and female)  
Strain: NMRI  
Cell type: Bone marrow  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: positive  
GLP: yes

Germ cell mutagenicity- Assessment : In vitro tests showed mutagenic effects  
Remarks: Based on read across from structural related substance  
Rhodium(III)-chloride hydrate.

**Carcinogenicity**

**Product:**

Remarks : No data available

**Components:**

**dirhodium trisulphate:**

Remarks : No data available

Carcinogenicity - Assessment :  
Remarks: Based on read across from structural related substance  
Rhodium(III)-chloride hydrate.

**Reproductive toxicity**

**Product:**

Effects on fertility : Remarks: No data available

**Components:**

**sulphuric acid:**

Effects on fertility : Remarks: data waiving in REACH dossier

Effects on foetal development : Test Type: Developmental toxicity study  
Species: Rabbit  
Strain: NZW  
Application Route: inhalation (aerosol)  
Dose: 0, 5, 20 mg/m<sup>3</sup>  
Duration of Single Treatment: 12 d  
General Toxicity Maternal: NOAEC: 5,7 mg/m<sup>3</sup>  
Developmental Toxicity: NOAEC: 19,3 mg/m<sup>3</sup>

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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/m<sup>3</sup>

Duration of Single Treatment: 9 d

General Toxicity Maternal: NOAEC: 5,7 mg/m<sup>3</sup>

Developmental Toxicity: NOAEC: 19,3 mg/m<sup>3</sup>

Method: OECD Test Guideline 414

GLP: no

**dirhodium trisulphate:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

Reproductive toxicity - Assessment : Remarks: Based on read across from structural related substance Rhodium(III)-chloride hydrate.

**STOT - single exposure**

**Product:**

Remarks : No data available

**Components:**

**sulphuric acid:**

Exposure routes : Inhalation, Ingestion, Skin contact

**dirhodium trisulphate:**

Remarks : No data available

**STOT - repeated exposure**

**Product:**

Remarks : No data available

**Components:**

**sulphuric acid:**

Exposure routes : Inhalation

**dirhodium trisulphate:**

Remarks : No data available

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**Repeated dose toxicity**

**Components:**

**sulphuric acid:**

Species : Rat, female  
: 0,3 mg/m<sup>3</sup>  
Application Route : inhalation (aerosol)  
Exposure time : 28 d  
Number of exposures : 5 d/w  
Dose : 0, 0.2, 1.0, 5.0 mg/m<sup>3</sup>  
Method : OECD Test Guideline 412  
GLP : yes

**dirhodium trisulphate:**

Remarks : No data available

**Aspiration toxicity**

**Components:**

**sulphuric acid:**

Not classified due to data which are conclusive although insufficient for classification.

**11.2 Information on other hazards**

**Endocrine disrupting properties**

**Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**Further information**

**Product:**

Remarks : No data available

---

**SECTION 12: Ecological information**

**12.1 Toxicity**

**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

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- 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 algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: Fresh water
- Toxicity to microorganisms : NOEC (activated sludge): 26.000 mg/l  
Exposure time: 37 d  
Method: No data available  
GLP: no  
Remarks: Based on data from similar materials
- Toxicity to fish (Chronic toxicity) : NOEC: 0,025 mg/l  
Exposure time: 65 days  
Species: Jordanella floridae (flagfish)  
GLP: no  
Remarks: Fresh water

**dirhodium trisulphate:**

- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 310 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
GLP: yes  
Remarks: No data available  
Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,29 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
GLP: no  
Remarks: Based on data from similar materials
- Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 0,656 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: Based on data from similar materials
- EC10 (Pseudokirchneriella subcapitata (green algae)): 0,046 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
GLP: yes

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Remarks: Based on data from similar materials

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms :  
Remarks: No data available

Toxicity to fish (Chronic toxicity) : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: No data available

**Ecotoxicology Assessment**

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

**12.2 Persistence and degradability**

**Components:**

**sulphuric acid:**

Biodegradability : Remarks: data waiving in REACH dossier

**dirhodium trisulphate:**

Biodegradability : Result: Readily biodegradable.

**12.3 Bioaccumulative potential**

**Components:**

**sulphuric acid:**

Bioaccumulation : Remarks: Not applicable

Partition coefficient: n-octanol/water : Remarks: data waiving in REACH dossier

**dirhodium trisulphate:**

Bioaccumulation : Remarks: No data available

Partition coefficient: n-octanol/water : Remarks: Not applicable

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

**Product:**

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Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

**Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

**Product:**

Additional ecological information : Toxic to aquatic life with long lasting effects.

---

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Dispose of in accordance with the European Directives on waste and hazardous waste.  
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.  
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

The product should not be allowed to enter drains, water courses or the soil.  
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 contaminated packaging as if unused product.  
Do not re-use empty containers.

---

## SECTION 14: Transport information

### 14.1 UN number

ADN : UN 3264  
ADR : UN 3264  
RID : UN 3264

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IMDG : UN 3264

IATA : UN 3264

**14.2 UN proper shipping name**

ADN : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(Sulphuric acid, dirhodium trisulfate)

ADR : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(Sulphuric acid, dirhodium trisulfate)

RID : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(Sulphuric acid, dirhodium trisulfate)

IMDG : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(Sulphuric acid, dirhodium trisulfate)

IATA : Corrosive liquid, acidic, inorganic, n.o.s.  
(Sulphuric acid, dirhodium trisulfate)

**14.3 Transport hazard class(es)**

ADN : 8



<\*\* Phrase  
does not  
exist:  
CUST -  
UMI00000  
0500026  
\*\*>

ADR : 8



<\*\* Phrase  
does not  
exist:  
CUST -  
UMI00000  
0500026  
\*\*>

RID : 8



<\*\* Phrase  
does not  
exist:  
CUST -  
UMI00000  
0500026  
\*\*>

IMDG : 8



<\*\* Phrase  
does not  
exist:  
CUST -  
UMI00000  
0500026  
\*\*>



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IATA : 8



**14.4 Packing group**

**ADN**

Packing group : II  
Classification Code : C1  
Hazard Identification Number : 80  
Labels : 8

**ADR**

Packing group : II  
Classification Code : C1  
Hazard Identification Number : 80  
Labels : 8  
Tunnel restriction code : (E)  
Limited quantity : 1,00 L

**RID**

Packing group : II  
Classification Code : C1  
Hazard Identification Number : 80  
Labels : 8

**IMDG**

Packing group : II  
Labels : 8  
EmS Code : F-A, S-B  
IMDG segregationcode : Acids

**IATA (Cargo)**

Packing instruction (cargo aircraft) : 855  
Maximum quantity : 30,00 L  
Packing instruction (LQ) : Y840  
Packing group : II  
Labels : Corrosive

**IATA (Passenger)**

Packing instruction (passenger aircraft) : 851  
Maximum quantity : 1,00 L  
Packing instruction (LQ) : Y840  
Packing group : II  
Labels : Corrosive

**14.5 Environmental hazards**

**ADN**

Environmentally hazardous : yes

**ADR**

Environmentally hazardous : yes

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**RID**

Environmentally hazardous : yes

**IMDG**

Marine pollutant : yes

**IATA (Passenger)**

Environmentally hazardous : yes

**IATA (Cargo)**

Environmentally hazardous : yes

**14.6 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.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable for product as supplied.

**SECTION 15: Regulatory information**

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 3

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors

Acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. sulphuric acid (ANNEX I)

Seveso III: Directive 2012/18/EU of the Euro- E2 ENVIRONMENTAL HAZARDS

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pean Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Water hazard class (Germany) : WGK 3 highly hazardous to water  
Classification according to AwSV, Annex 1 (5.2)

TA Luft List (Germany) : 5.2.1: Total dust:  
Not applicable  
5.2.2: Inorganic substances in powdered form:  
Not applicable  
5.2.4: Inorganic substances in gaseous form:  
Not applicable  
5.2.5: Organic Substances:  
Not applicable  
5.2.7.1.1: Carcinogenic substance:  
Not applicable  
5.2.7.1.1: Quartz fine dust PM4:  
Not applicable  
5.2.7.1.1: Formaldehyde:  
Not applicable  
5.2.7.1.1: fibres:  
Not applicable  
5.2.7.1.2: Germ cell mutagens:  
Not applicable  
5.2.7.1.3: Substances toxic to reproduction:  
Not applicable  
5.2.7.2: Poorly degradable, easily enrichable and highly toxic organic substances:  
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)  
Not applicable

### Other regulations:

Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

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

TSCA : All substances listed as active on the TSCA inventory  
AIIIC : On the inventory, or in compliance with the inventory  
DSL : All components of this product are on the Canadian DSL  
ENCS : On the inventory, or in compliance with the inventory

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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
NZIoC	:	Not in compliance with the inventory
CH INV	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TECI	:	On the inventory, or in compliance with the inventory

### 15.2 Chemical safety assessment

#### SECTION 16: Other information

##### Full text of H-Statements

H290	:	May be corrosive to metals.
H314	:	Causes severe skin burns and eye damage.
H318	:	Causes serious eye damage.
H341	:	Suspected of causing genetic defects.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
EUH071	:	Corrosive to the respiratory tract.

##### Full text of other abbreviations

Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Met. Corr.	:	Corrosive to metals
Muta.	:	Germ cell mutagenicity
Skin Corr.	:	Skin corrosion
2009/161/EU	:	Europe. COMMISSION DIRECTIVE 2009/161/EU establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
2009/161/EU / TWA	:	Limit Value - eight hours
ACGIH / TWA	:	8-hour, time-weighted average
DE TRGS 900 / AGW	:	Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration

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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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECL - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Met. Corr. 1	H290
Skin Corr. 1	H314
Eye Dam. 1	H318
Muta. 2	H341
Aquatic Chronic 2	H411

#### Classification procedure:

Based on product data or assessment
Based on product data or assessment
Based on product data or assessment
Calculation method
Calculation method

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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