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*

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SECTION 1: Identification of the substance/mixture and of the company	v/undertaking
· 1.1 Product identifier	
· Trade name: <u>Rhodiumbad DK-S (mit 20 - 50 g/l Rh)</u> Rhodium bath DK-S (with 20 - 50 g/l Rh <u>)</u>	
Article number: 81010229 = 1,0 g Rh/ 50ml (20g Rh/l) 86914900 = 1,5 g Rh/ 30ml (50g Rh/l) 86914920 = 2,0 g Rh/100ml (20g Rh/l) 86914915 = 2,5 g Rh/100ml (25g Rh/l) 86914940 = 5,0 g Rh/100ml (50g Rh/l) 86914960 = 50,0 g Rh/l	
 1.2 Relevant identified uses of the substance or mixture and uses advised against Not approved for private consumers. 	
• Application of the substance / the mixture Galvanic bath	
• 1.3 Details of the supplier of the safety data sheet • Manufacturer/Supplier:	
Heimerle + Meule GmbH Dennigstrasse 16 D-75179 Pforzheim Telefon +49 (0) 7231 940-0 Telefax +49 (0) 7231 940-2199	
www.heimerle-meule.com • Further information obtainable from:	
Abteilung BASU - Bau/Arbeitssicherheit/Umwelt Department BASU - Construction / Occupational Safety / Environment sds@heimerle-meule.com	
IATA - 24h Emergency Contact - IATA - 24h Emergency Contact - (Dangerous goods emergency number) +49 172 739 6970	
· 1.4 Emergency telephone number:	
DEUTSCHLAND - GERMANY: Vergiftungs-Informations-Zentrale Freiburg, ++49 761 19240 (24 h) (Poisoning Information Center) <u>GREAT BRITAIN:</u> National Poisons Information Service +44 121 507 4123 Members of the public seeking specific information on poisons should contact: In England and Wales: NHS 111 - dial 111 - In Scotland: NHS 24 - dial 111	
<u>IRELAND</u> +353 1 809 2166 (7 Days 8 am -10 pm) Healthcare Professionals: +353 1 809 2566 <u>ITALY:</u> Latitude Superious di Senitè (ISS) + 2006 400006140	
Istituto Superiore di Sanità (ISS) +3906499906140 Centro Antiveleni Bergamo: +39 800 883300 Firenze +39 055 794 7819	
Milano: +39 055 794 7819 Roma +39 06 68593726 Roma +39 06 49978000	
Roma +39 06 3954343 <u>KROATIA - REPUBLIKA HRVATSKA:</u> (+385) 01 2348 342 ESTLAND - ESTONIA:	
ESTLAND - ESTUNIA.	(Contd. on page 2)



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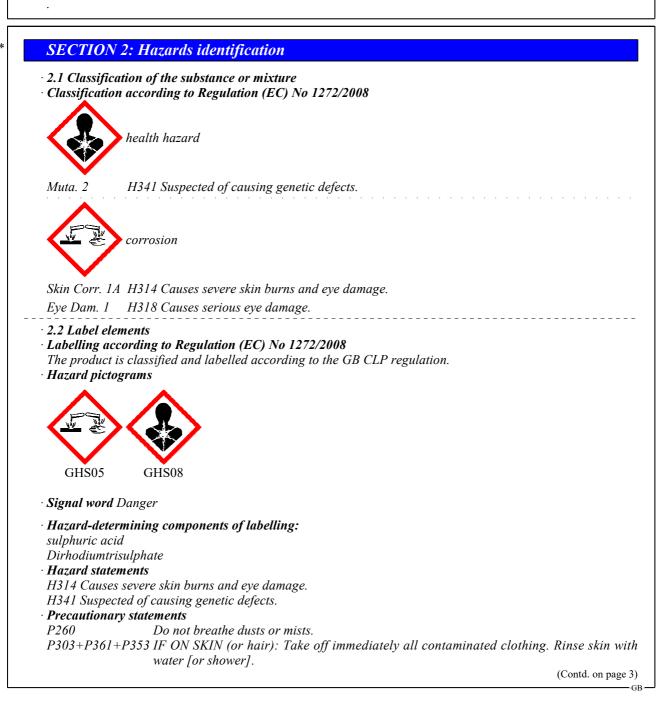
Trade name: Rhodiumbad DK-S (mit 20 - 50 g/l Rh)

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Tervisemeti Mürgistusteabekeskuse National (24/7): 16662 (+372) 7943 794 LETTLAND - LATVIA: Valsts Toksikoloģijas centrs, Saindēšanās un zāļu informācijas centrs, (24h) 112 (24h) +371 67042473 LITAUEN - LIETUVOS RESPUBLIKA: Poison Information Bureau (24/7), Tel.: +8 5 236 20 52 Apsinuodijimų informacijos biuras

Rhodium bath DK-S (with 20 - 50 g/l Rh)





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P305+P351+P33	(Contd. of page 2) 8 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see on this label).
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

• Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components / Information on ingredients:		
	sulphuric acid	≥15–≤25%
<i>EINECS. 251-059-5</i> <i>Index number: 016-020-00-8</i>	Met. Corr.1, H290; Skin Corr. 1A, H314 Specific concentration limits: Skin Corr. 1A; H314: $C \ge 15 \%$	
Reg.nr.: 01-2119453338-20	Skin Irrit. 2; H315: 5 % $\leq C < 15$	
	% Eye Irrit. 2; H319: 5 % ≤ C < 15 %	
CAS: 10489-46-0	Dirhodiumtrisulphate	7–10%
	 Muta. 2, H341 Met. Corr.1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318 	

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

• 4.1 Description of first aid measures

• General information:

Personal protection for the First Aider.

Immediately remove any clothing soiled by the product.

• After inhalation: In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing:

Do not induce vomiting; call for medical help immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

• 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

- · Hazards Danger of gastric perforation.
- 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

• 5.2 Special hazards arising from the substance or mixture

Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:

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Sulphur dioxide (SO2)

- 5.3 Advice for firefighters
- · Protective equipment:



Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
- · 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralising agent.

Dispose contaminated material as waste according to item 13.

- Ensure adequate ventilation.
- 6.4 Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

When diluting always pour product into water and not vice versa. Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

he usual precautionary measures are to be adhered to when handling chemicals.

Prevent formation of aerosols.

Wear suitable respiratory protective device when decanting larger quantities without extractor facilities. Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.

· Information about fire - and explosion protection: Keep respiratory protective device available.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

• Requirements to be met by storerooms and receptacles:

Observe official regulations on storing packagings.

- Observe official regulations on storing packagings.
- Prevent any seepage into the ground.
- Information about storage in one common storage facility: Store away from foodstuffs.
- Further information about storage conditions:
- Keep container tightly sealed.

Store under lock and key and out of the reach of children.

• Storage class: 8 B

· 7.3 Specific end use(s) No further relevant information available.

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-	re controls/personal protection
8.1 Control parameters	
Ingredients with limit values that require monitoring at the workplace:	
CAS: 7664-93-9 sulphuric	
WEL (Great Britain)	Long-term value: 0.05* mg/m ³ *mist: defined as thoracic fraction
IOELV (European Union)	Long-term value: 0.05 mg/m ³
AGW (Germany)	Long-term value: 0.1 E mg/m ³ I(I);DFG, EU, Y
Regulatory information WEL (Great Britain): EH4 IOELV (European Union): AGW (Germany): TRGS 90	: (EU) 2019/1831 00
, i i i i i i i i i i i i i i i i i i i	he lists valid during the making were used as basis.
8.2 Exposure controls	
	controls No further data; see item 7. sures, such as personal protective equipment
General protective and hy	
	neasures are to be adhered to when handling chemicals.
Keep away from foodstuffs	
	iled and contaminated clothing
Wash hands before breaks	
Do not inhale gases / fume	
Avoid contact with the eye. Respiratory protection:	s ana skin.
Not necessary if room is w	ell-ventilated
Short term filter device:	
Combinationfilter ABEK-H	23
	ovide protection for a short period of time only. They should only be used i if a small amount of the substance has spilled out or in order to fight spillages an
Hand protection	
Protective g	gloves
	be impermeable and resistant to the product/ the substance/ the preparation. commendation to the glove material can be given for the product/ the preparation
	aterial on consideration of the penetration times, rates of diffusion and th
degradation · Material of gloves	
The selection of the suitable and varies from manufact	le gloves does not only depend on the material, but also on further marks of qualit turer to manufacturer. As the product is a preparation of several substances, th terial can not be calculated in advance and has therefore to be checked prior to th

application.

Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Not suitable are gloves made of the following materials: Leather gloves

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· Body protection: Protective work clothing

9.1 Information on basic physical and chemical p	properties
General Information Physical state	Fluid
Physical state Colour:	
Odour:	Dark orange colour Product specific
	Product specific
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling	$100^{\circ}C(212^{\circ}E)$
range Elammability	100°C (212°F) Not applicable
Flammability	Not applicable.
Lower and upper explosion limit	Not determined
Lower:	Not determined.
Upper: Elash point:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH at 20°C (68°F) Visconitu	1
Viscosity: Kinematic viscosity	Not determined.
•	Not determined. Not determined.
Dynamic:	ivoi ueiermineu.
Solubility water:	Fully missible
	Fully miscible. Not determined.
Partition coefficient n-octanol/water (log value)	Not determined. Not determined.
Vapour pressure:	ivoi ueiermineu.
Density and/or relative density Density:	Not determined.
Relative density	Not determined.
Kelative density Vapour density	Not determined. Not determined.
	1101 uciel mineu.
9.2 Other information	
Appearance:	El.: d
Form:	Fluid
Important information on protection of health an	a
environment, and on safety.	Product is not solficriting
Auto-ignition temperature:	Product is not selfigniting. Product does not present an explosion hereard
Explosive properties:	Product does not present an explosion hazard.
Solvent content:	0.0 %
Organic solvents: Change in condition	0.0 /0
Change in condition	Not determined
Evaporation rate	Not determined.
Information with regard to physical hazard classe	
Explosives	Void
Flammable gases Aerosols	Void Void

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		(Contd. of page)
· Oxidising gases	Void	
· Gases under pressure	Void	
· Flammable liquids	Void	
· Flammable solids	Void	
· Self-reactive substances and mixtures	Void	
· Pyrophoric liquids	Void	
· Pyrophoric solids	Void	
· Self-heating substances and mixtures	Void	
· Substances and mixtures, which emit flamm	able	
gases in contact with water	Void	
• Oxidising liquids	Void	
· Oxidising solids	Void	
· Organic peroxides	Void	
· Corrosive to metals	Void	
· Desensitised explosives	Void	

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

10.2 Chemical stability

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

• 10.3 Possibility of hazardous reactions Reacts with light alloys to form hydrogen.

• 10.4 Conditions to avoid No further relevant information available.

• 10.5 Incompatible materials: No further relevant information available.

• 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

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

- · Skin corrosion/irritation Causes severe skin burns and eye damage.
- · Serious eye damage/irritation Causes serious eye damage.
- · Germ cell mutagenicity Suspected of causing genetic defects.
- · 11.2 Information on other hazards

• Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

· 12.1 Toxicity

- Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment Not applicable.

• **PBT:** Not applicable.

- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

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- 12.7 Other adverse effects • Additional ecological information:
- · General notes:

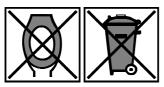
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Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

• Waste disposal key:

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

· Uncleaned packaging:

· Recommendation:

Disposal must be made according to official regulations.

Packaging which is uncleaned or soiled with product remains is to be treated like the product itself Packaging free of product remains is to be supplied refuse for recycling. Only if no adequate collecting system is available, they may be disposed of through the domestic rubbish

• Recommended cleansing agents: Water, if necessary together with cleansing agents.

14.1 UN number or ID number ADR, IMDG, IATA	UN3264
· 14.2 UN proper shipping name · ADR · IMDG, IATA	UN3264 CORROSIVE LIQUID, ACIDIC, INORGANIC N.O.S. (SULPHURIC ACID, Dirhodiumtrisulphate) CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S
	(SULPHURIC ACID, Dirhodiumtrisulphate)
· 14.3 Transport hazard class(es)	
· ADR, IMDG, IATA	
Received and the second	
· Class	8 Corrosive substances.
· Label	8
· 14.4 Packing group	
· ADR, IMDĞ, IATA	11



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14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Warning: Corrosive substances.
Hazard identification number (Kemler code):	80
EMS Number:	F-A,S-B
Segregation groups	(SGG1) Acids
Stowage Category	В
Stowage Code	SW2 Clear of living quarters.
14.7 Maritime transport in bulk according to IM	10
instruments	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	1L
Excepted quantities $(\widetilde{E}Q)$	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
Transport category	2
· IMDG	
Limited quantities (LQ)	1L
Excepted quantities $(\widetilde{E}Q)$	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
IATA	
Remarks:	
	24h emergency contact -
	(Dangerous goods emergency number)
	40 172 720 6070
	+49 172 739 6970
UN "Model Regulation":	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANI
	N.O.S. (SULPHURIC ACID
	DIRHODIUMTRISULPHATE), 8, II

SECTION 15: Regulatory information

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

COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)

DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC

• GADSL - Global Automotive Declarable Substance List CAS: 7487-88-9 magnesium sulphate

D(FI)

· National regulations:

• Waterhazard class: .

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· Other regulations, limitations and prohibitive regulations -

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Reasons for revise

If necessary, this saftey data sheet can revised according to legal guidelines.

Our current version for your reference is available on our website www.heimerle-meule.com

· Relevant phrases

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.

· Department issuing SDS:

Abteilung BASU - Bau/Arbeitssicherheit/Umwelt Department BASU - Construction / Occupational Safety / Environment

sds@heimerle-meule.com

· Contact:

Herr Thomas Knuth thomas.knuth@heimerle-meule.com sds@heimerle-meule.com · Abbreviations and acronyms: AwSV: Ordinance on facilities for handling water-polluting substances (German regulation). TRGS: Technical rules for hazardous substances (German regulation) ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Met. Corr.1: Corrosive to metals - Category 1 Skin Corr. 1A: Skin corrosion/irritation - Category 1A Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Muta. 2: Germ cell mutagenicity - Category 2 • * Data compared to the previous version altered.

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