

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING


1.1 PRODUCT IDENTIFIER	P2 – Rhodium solution
1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST	Galvanic bath for jewelry applications
1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET	Pandora Alloys srl Via Galvani, 14 20094 Corsico (MI) Italia ' +39 02 45 86 40 35 7 +39 02 45 86 98 40 * info@pandoralloys.com : www.pandoralloys.com
1.4 EMERGENCY TELEPHONE NUMBER	Centro antiveleni c/o Niguarda Hospital P.za Ospedale Maggiore, 3 Milano – Italy ' +39 02 66 10 10 29 (24h)

2. HAZARDS IDENTIFICATION

Irritates eyes and skin. P2 must not be spilled in waters.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Aqueous solution of rhodium sulphate in sulfuric acid.

Substance	No. CAS	No. CE	Classification	TLV-TWA (mg/m ³)	Concentration	REACH symbol(s)
Sulfuric acid	7664-93-9	231-639-5	H315; H319 P280 P305+P351+P338 P302+P353	1.0	2,5%–5%	

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES AFTER INHALATION	Bring affected person outside and ensure that he/she is comfortable.
AFTER CONTACT WITH SKIN	Rinse thoroughly with water. Remove contaminated clothes. In case of continuous skin irritation consult a doctor.
AFTER CONTACT WITH EYES	Immediately flush with plenty of water for at least 5 minutes. Keep eyelid open. Protect the not injured eye. Further treatment by eye doctor.
AFTER INGESTION	Drink water. Supply with medical care.
4.2 INDICATION OF THE POSSIBLE NEED OF IMMEDIATE MEDICAL ADVICE OR SPECIAL TREATMENTS	Follow the procedures of safety agreed in your company

5. EXTINGUISHING METHODS

Not flammable product.

- 5.1 Extinguishing media
 Recommended extinguisher None in particular
 Forbidden extinguisher -
- 5.2 Special exposure hazards arising from the substances or preparation itself, combustion products, resulting gases
 In presence of fire corrosive vapours of sulfuric acid may develop.
- 5.3 Recommendations to the employees in charge of fire extinction
 Independent breathing apparatus and gas protecting clothing. Follow the procedures of extinguishing agreed in your company.

6. MEASURES IN CASE OF ACCIDENTAL RELEASE

- 6.1 Personal precautions
 Keep persons at a distance and stay on the weather side. Wear personal protective equipment (section 8)
- 6.2 Environmental precautions
 Avoid spillage into waters/sewage system
- 6.3 Methods of cleaning up
 Pump away bigger amounts, absorb smaller amounts with liquid-binding material (e.g. sand, infusorial earth, inert absorbent). Contaminated areas then should be washed with water.
- 6.4 Further information
 Contaminated liquids and solid rests should be given to noble metal recycling.

7. HANDLING AND STORAGE

- 7.1 Precautions for a safe handling
 Wear personal protective equipment (section 8). Keep container tightly closed if not in use. Use suitable ventilation at the working place or at the machines.
- 7.2 Conditions for a safe storage, including possible incompatibilities.
 Do not store together with strong bases.
- 7.3 Final specific uses
 Rhodium galvanic bath to dilute in demineralized water, for jewelry purposes and applications.

8. EXPOSITION CONTROL/PERSONAL PROTECTION

Additional instructions for technical installation

Use suitable ventilation at the working place

- 8.1 Ingredients with threshold limit values: maximum admissible concentration (MAK)

Substance	No. CAS	Type	Value
Sulfuric acid	7664-93-9	MAK	1 mg/m ³

- 8.2 Controls of exposition
- | | |
|------------------------|---|
| Respiratory protection | Only at short or low contamination use breathing mask with filter Type B2-P3, otherwise independent breathing apparatus. |
| Hands protection | Wear protective gloves made of latex (0,65 mm), nitrile (0,4 mm) or butyl rubber (0,7 mm). Time until penetration occurs > 8h |
| Eyes protection | Wear safety goggles |
| Skin protection | Protecting clothing for chemicals. Immediately change contaminated clothes. For cleaning work wear rubber boots. |

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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information about the basic physical and chemical properties

Aspect: liquid solution	Odor: odorless
Olfactory threshold: n.a.	pH: n.d. (• 7)
Flash point: n.a.	Boiling temperature: > 100 °C
Flash: not flammable	Evaporation rate: n.a.
Vapor pressure: n.a.	Explosiveness higher/lower limits: n.a.
Melting temperature: nd.	Solubility: miscible in water
Relative density: n.d.	Vapor density: n.a.
Rhodium content: 20-50 g/L	Ignition temperature: n.a.
Decomposition temperature: n.a.	Viscosity: n.d.
Explosive properties: n.a.	Oxidising properties: n.a.

9.2 Other information None

10. STABILITY AND REACTIVITY

10.1 Reactivity

High reactivity in presence of strong bases.

10.2 Chemical stability

Stable product

10.3 Possible dangerous reactions

The contact between P2 and strong bases cause a vigorous exothermic reaction.

10.4 Conditions to avoid

Avoid contact between P2 and strong bases.

10.5 Incompatible materials

Strong bases.

10.6 Dangerous product due to decomposition

None

11. TOXICOLOGICAL INFORMATION

Immediate effects

Important LD / LC50-Values:

Substance	Type	Value	Species
Sulfuric acid	LD50 oral	2140 mg/Kg	rat

Primary irritating effect:

Skin	irritating
Eyes	strongly irritating
Sensitization	-
Human experiences	-
Further information	Exact toxicological values do not exist

12. ECOLOGICAL INFORMATION

General information

There is no data about ecotoxicological tests. Do not spill into waters or sewage system

12.1 Persistence and degradability

Inorganic substance, cannot be degraded biologically.

Ecotoxicological effects

12.2 Effects in water:

Concentrated solution toxic for aquatic life due to pH-shift

12.3 Other negative effects

n.a.

Further information

Heavy metals content (20-50 g Rh/L)

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13. DISPOSAL CONSIDERATION

Product Noble metal recycling. Return to Pandora Alloys.
 Uncleaned contaminated packaging Wash with water and give to plastic recycling.

14. INFORMATION ON TRANSPORT

Land transport ADR/RID

ADR/RID-Class 8
 Classification code C1
 Packaging group II
 Danger board hazard-No. 80
 UN-No. 3264
 Proper shipping name Sulfuric acid



Sea transport IMDG/GGVSee

IMDG/GGVSee-Class 8
 UN-No. 3264
 EmS-No. 8-06
 MFAG 700
 Packaging group II
 Marine Pollutant no
 Proper shipping name Sulfuric acid



Air transport ICAO and IATA-DGR

ICAO/IATA-Class 8
 UN/ID-No. 3264
 Packaging group II
 Proper shipping name Sulfuric acid



15. INFORMATION ON REGULATIONS

Information on the label according to the current directives

Indication(s) of danger: skin irritation, category 2 / eye irritation, category 2
 Hazardous ingredient(s) for labelling: sulfuric acid

H-phrases

H315 Causes skin irritation
 H319 Causes serious eye irritation

P-phrases

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
 P305+P351+P338 If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P302+P353 If on skin rinse with water

National measures that may be relevant

Water endangering class (Germany): 1

16. OTHER INFORMATION

This chart has been written as per our knowledge at the present date. The user is asked to check if information are suitable and complete referred to the use of this product. Information on this chart are a description of general characteristics about its safety; this chart is not a guarantee of properties of this product.

This chart substitutes every previous communication.