Safety data sheet
According to Regulation n. 1907/2006 and Regulation 878/2020
Rhodiamond Ready to Use 2 g/l

Revision 8 – 30.05.2025
Replaces revision 7 - 25.06.2024

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

1.1 Product identifier

Commercial name	Rhodiamond Ready to Use 2 g/l
Product code	124
Registration number	A registration number is not available for this product as it is a mixture
UFI code	TNA0-Q085-V00E-PW20

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

Intended uses	Industrial use. Additive for electroplating
Advised against uses	None in particular

1.3 Details of the supplier of the safety data sheet

Name	FAGGI ENRICO S.P.A.
Adress	Via Majorana, 101/103 50019 Sesto Fiorentino FI
Telephone number	055311861
Fax number	055311791
Competent person responsible for the safety data sheet	lorenzo.magaldi@faggi.it

1.4 Emergency telephone number

111 - Medical helpline operating in England, in Scotland (NHS 24) and in Wales (NHS Direct Wales)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Hazard classes	Category codes	Hazard statements
Met. Corr.	1	H290
Skin Corr	1 B	H314
Aq. Chronic	3	H412

2.2 Label elements

Pictograms

Signal word	**DANGER**	
Hazard statements	H290	May be corrosive to metals
	H314	Causes severe skin burns and eye damage.
	H412	Harmful to aquatic life with long lasting effects
	EUH071	Corrosive to the respiratory tract
Precautionary statements	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P301+P330+P331	IF SWALLOWED: Rinse mouth.DO NOT induce vomiting.
	P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

		P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
		P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P273	Avoid release to the environment
	UFI code	TNA0-Q085-V00E-PW20	
2.3	**Other hazards**	It does NOT contain PBT / vPvB substances according to Regulation (EC) 1907/2006, annex XIII It does NOT contain substances that interfere with the endocrine system in accordance with Regulation (EC) 1907/2006 art.59 paragraph 1 and in accordance with the criteria established in Regulation (EU) 2017/2100 and Regulation (EU) 2018/605.	

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Product identifier	**Concentration %**	**Classification**	
		Hazard classes	**Category codes**
Sulphuric acid CAS 7664-93-9 CE 231-639-5 INDEX 016-020-00-8 N.Reach: 01-2119458838-20-XXXX Specific limits: Skin Corr. 1A : C ≥ 15 % Skin Irrit. 2: H315 5% ≤ C < 15 % Eye Irrit. 2: H319 5% ≤ C < 15 % ATE: not applicable M factors: not applicable	3 ≤ conc < 5	Skin Corr. 1 A	H314
Dirhodium trisulphate CAS 10489-46-0 CE: 234-014-5 INDEX: not available REACH N °: exempt for quantity ATE: not applicable M factor (acute): 1 M factor (chronic): 1	0.5 ≤ C < 1	Met.Corr 1 Skin Corr. 1B Eye Dam. 1 Aq. Acute 1 Aq. Chronic 1	H290 H314 H318 H400 H410

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	Keep the injured person at rest in an airy and warm environment. In case of respiratory arrest, use artificial respiration methods.
Ingestion	Do not induce vomiting. Drink plenty of water and consult a doctor.
Skin contact	Take off contaminated clothing and dispose of it safely. Immediately wash skin with plenty of water and soap. Consult a physician

Eye contact — Immediately rinse the eyes with plenty of water until the irritation subsides. Do not use eye drops or ointments. Consult an ophthalmologist specialist

Reccomendation:

- **Need to see a doctor immediately** — YES
- **Possibility of delayed effects following exposure** — YES
- **Move the exposed individual from the place of exposure to the open air** — YES
- **Remove the clothing and shoes of the exposed individual** — YES
- **How to handle contaminated clothing** — With gloves
- **For those providing first aid, wear PPE** — YES

4.2 Most important symptoms and effects, both acute and delayed

Eye, nose and throat irritation, chest pain, choking, skin irritation, corneal burns, skin burn (after severe exposure), nausea, vomiting: Abundant and bleeding mucous secretions, bronchitis, pulmonary edema, corneal necrosis, tissue necrosis, perforation of the gastrointestinal tract.

4.3 Indication of any immediate medical attention and special treatment needed

Consult a physician immediately. Emergency showers and eye washing systems must be available in the workplace.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Water spray,carbon dioxide, foam

Non suitable extinguishing media: None in particular

5.2 Special hazards arising from the substance or mixture

If involved in a fire it can develop sulfur oxides, toxic for inhalation.

5.3 Advice for firefighters

General information: Prevent the water used to extinguish the fire from flowing into the sewer, groundwater or surface water. Cool containers at risk with water.

Equipment: Normal fire-fighting clothing, such as self-contained open-circuit compressed air breathing apparatus (EN137), flame retardant suit (EN469), flame retardant gloves (EN659) and firefighter boots (HOA29 or A30)

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

6.1.1. For non-emergency personnel

Immediately move away from the contaminated area and keep upwind.

6.1.2. For emergency responders

Use:

Gloves for chemical risks compliant with EN420 EN374 Standards
Complete clothing compliant with the UNI EN 13034: 2006 standard
Semi-face masks with ABEK2P3 R filters conforming to EN14387: 2004 + A1: 2008

6.2 Environmental precautions

Prevent infiltration into the sewer, groundwater and surface water of the washing water.

6.3 Methods and material for containment and cleaning up

6.3.1. Advice to contain a spill

Contain spill with appropriate absorbent material (sand, bentonite) and place in airtight container. Sprinkle the spill with baking soda to neutralize the acidity.

6.3.2. Advice to clean-up a spill

Wash the area with plenty of water.

6.4 Reference to other sections

None

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Recommendations to manipulate the substance or the mixture in a safe manner, such as containment measures and prevention of fire and aerosol and powders formation

During processing, before transferring operations, make sure that there are no incompatible residual materials in the containers used.

7.1.2. General recommendation on work hygiene

Do not eat, drink and smoke in work areas. Wash your hands after use. Remove contaminated clothing and protective equipment before entering eating areas

7.2. Conditions for safe storage, including any incompatibilities

Keep away from bases and metals.

7.2.1. Risk management associated with explosive atmospheres, corrosive conditions, flammability hazards, incompatible substances or mixtures, evaporative conditions, potential ignition sources

Store in the original containers and close them immediately after use.

7.2.2. Control of weather conditions, ambient pressure, temperature, sunlight, humidity, and vibration

Store in a cool, dry place.

7.2.3. Conditions for keeping substances / mixtures intact

The packages must be well closed and labeled.

7.2.4. Advice regarding the ventilation, specific design for storage rooms or vessels, quantity limits under storage conditions, packaging compatibilities

Use PE and PP plastic packaging or other resistant materials. Keep the packages in a containment basin.

7.3. Specific end use(s)

Industrial use. Additive for electroplating

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

SULPHURIC ACID

DNEL

Workers

Systemic effects for long-term exposure – inhalation: no hazard identified
Systemic effects for short-term exposure – inhalation: no hazard identified
Local effects for long-term exposure – inhalation: 0.05 mg/m3
Local effects for short-term exposure – inhalation: 0.1 mg/m3
Systemic effects for long-term exposure – dermal: no hazard identified
Systemic effects for short-term exposure – dermal: no hazard identified
Local effects for long-term exposure – dermal: high hazard (no derived threshold)
Local effects for short-term exposure – dermal: high hazard (no derived threshold)
Eye hazards: high risk (no derived threshold)

General population
Systemic effects for long-term exposure – inhalation: no hazard identified
Systemic effects for short-term exposure – inhalation: no hazard identified
Local effects for long-term exposure – inhalation: high hazard (no derived threshold)
Local effects for short-term exposure – inhalation: high hazard (no derived threshold)
Systemic effects for long-term exposure – dermal: no hazard identified
Systemic effects for short-term exposure – dermal: no hazard identified
Local effects for long-term exposure – dermal: high hazard (no derived threshold)
Local effects for short-term exposure – dermal: high hazard (no derived threshold)
Systemic effects for long-term exposure – oral: no hazard identified
Systemic effects for short-term exposure – oral: no hazard identified
Eye hazards: high hazard (no derived threshold)

PNEC
Fresh water: no hazard identified
Marine water: no hazard identified
Sewage treatment plant: no hazard identified
Sediment (fresh water): no hazard identified
Sediment (sea water): no hazard identified
Soil: no hazard identified

DIRHODIUM TRISULPHATE

DNEL
No data available up to now

PNEC
Chronic Ecotoxic Reference Value (ERV): 46 µg Rh/L (P. subcapitata)(growth rate)
Acute Ecotoxic Reference Value (ERV): 290 µg Rh/L (D. magna)

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Ventilation systems. Emergency showers and eye washing system near the work area.

8.2.2. Individual protection measures, such as personal protective equipment

Eye/face protection	Splash goggles compliant with Directive 89/686 / EEC and standard EN166: 2001
Skin protection (hands)	Chemical gloves according to EN 420 EN 374 Glove material: Fluorinated rubber Material thickness: 0.5 mm Penetration time: ≥ 60 min DIN EN374 method
Skin protection (body)	Complete clothing compliant with the UNI EN 13034: 2006 standard.
Respiratory protection	Semi-face masks with ABEK2P3 R filters conforming to EN14387: 2004 + A1: 2008
Thermal hazards	Information not available.

8.2.3. Environmental exposure controls

Maintain suction in all environments using localized collection systems and ambient air exchange. Convey the aspirated volumes to an abatement system

and then into the atmosphere. Do not use air recirculation suction systems. Avoid any spillage into the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	Dark orange
Odour	Acid
Melting point/freezing point	- 4 °C
Boiling point or initial boiling point and boiling range	Ca 101 °C
Flammability	Not flammable
Lower and upper explosion limit	Not explosive
Flash point	Not flammable
Auto-ignition temperature	Not flammable
Decomposition temperature	The product decomposes at about 335 ° C
pH	≤ 2
Kinematic viscosity	Not available data
Solubility	Fully miscible in water
Partition coefficient n-octanol/water (log value)	Fully miscible in water
Vapour pressure	Undefined
Density and/or relative density	1.1 g/cm3
Relative vapour density	Not availble data
Particle characteristics	Not applicable

9.2. Other information

None.

10. STABILITY AND REACTIVITY

10.1 Reactivity

The product has a highly acidic behavior.

10.2 Chemical stability

Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

May react violently with water with strong development of heat and projection of hot and / or corrosive liquids.

10.4 Conditions to avoid

Overheating.

10.5 Incompatible materials

Bases, organic substances.

10.6 Hazardous decomposition prodoucts

Sulfur oxides

11. TOXICOLOGICAL INFORMATION

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

Acute toxicity	Based on available data, the classification criteria are not met
Skin corrosion/irritation	The product causes serious skin corrosion
Serious eye damage/irritation	The product causes serious eye damage
Respiratory or skin sensitization	Based on available data, the classification criteria are not met

	Germ cell mutagenicity	Based on available data, the classification criteria are not met
	Carcinogenicity	Based on available data, the classification criteria are not met
	Reproductive toxicity	Based on available data, the classification criteria are not met
	(STOT) single exposure	Based on available data, the classification criteria are not met
	(STOT) repeated exposure	Based on available data, the classification criteria are not met

11.2 Information on other hazards

None

12 ECOLOGICAL INFORMATION

12.1	**Toxicity**	Dirhodium trisulphate LC 50 (fish) 96 h: 220 mg / L EC50 (Daphnia magna) 48 h: 290 µg / L Rh EC50 (algae) 72 h: 4.5 mg/L Rh
12.2	**Persistence and degradability**	Not persistent
12.3	**Bioaccumulative potential**	Not bioaccumulative
12.4	**Mobility in soil**	Undefined
12.5	**Results of PBT and vPvB assessment**	Not applicable
12.6	**Endocrine disrupting properties**	No effect known
12.7	**Other adverse effects**	No effect known

13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

The substance and its packaging must be disposed of as hazardous waste by authorized companies.

14 TRANSPORT INFORMATION

14.1	**UN number or ID number**	3264
14.2	**Official UN shipping name**	
	ADR/ADN/IMDG	Corrosive inorganic liquid, acid n.o.s. (sulphuric acid, dirhodium trisulphate)
14.3	**Transport hazard class**	
	ADR/RID/ADN/IMDG/ICAO-IATA: Class:	8
	ADR/RID/ADN/IMDG/ICAO-IATA: Label:	8
	ADR: Tunnel restriction code	(E)
	IMDG - EmS:	F-A, S-B
14.4	**Packing group**	II
14.5	**Dangers for the environment**	
	ADR/RID/ADN/ICAO-IATA:	NO
	IMDG: Marine Contaminant:	NO

14.6 Special precautions for user

Transport must be carried out by vehicles authorized for the transport of dangerous goods according to the provisions of the current edition of the A.D.R. Agreement. and the applicable national provisions. Transport must be carried out in the original packaging and, in any case, in packaging which is made of materials which cannot be attacked by

the contents, and which are not likely to generate dangerous reactions. Those responsible for loading and unloading dangerous goods must have received appropriate training on the risks presented by the preparation and on any procedures to be adopted in the event of emergency situations.

14.7 Maritime transport in bulk according to IMO instruments

No bulk transport is foreseen

15. REGULATORY INFORMATION

15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**	**Applicability**
Reg. (CE) 1907/2006/CE Reach	YES
Reg. (CE) 1272/2008 CLP and subsequent amendements	YES
Reg. (CE) 2037/2000 "Substances that deplete the ozone layer"	NO
Reg. (CE) 850/2004 "Persistent organic pollutants"	NO
Reg. (CE) 689/2008 "Export and import of hazardous chemicals"	NO
Substance listed in Annex I of Dir. 2012/18/UE cd Seveso	NO
Directive 81/2008 Consolidated Act on protection of health and work safety	YES
Directive 2014/103/UE "Adr"	YES
Reg. (CE) 1907/2006/CE Reach art. 59 – Candidate List of Substances of Very High Concern (SVHC)	NO
Reg. (CE) 1907/2006/CE Reach - Annex XIV – Authorisation List	NO
Reg. (CE) 1907/2006/CE Reach - Annex XVII – Restriction List https://echa.europa.eu/it/substances-restricted-under-reach	Limited use Item 3 - 75 (check link)

15.2 **Chemical safety assessment**

A chemical safety assessment was not carried out

16. OTHER INFORMATION

Changes compared to the previous edition

Changes to sections 2-3-8-12-14-16

Acronim and abbreviation legend

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

GHS: Globally Harmonized System of Classification and Labeling of Substances

EINECS: European Inventory of Chemical Substances

CAS: Chemical Abstract Service

STA: Acute Toxicity Estimate

PBT: Persistent, Bioaccumulative and Toxic.

vPvB: (very persistent and very bioaccumulative). Very persistent and very bioaccumulative

LD: lethal dose

PNEC: predicted no effect concentration

DNEL: derived no effect level

TLV (ceiling value): threshold limit value

STEL: short-term exposure limit

EU-OEL: European occupational exposure limit

TWA: time-weighted average
EC: effective concentration
NOAEL: no observed adverse effect level
LC: lethal concentration
NOEC: no observed effect concentration
LOEC: lowest observed effect concentration
Bw: body weight
Koc: organic carbon-water partition coefficient

Main references and data sources

ECHA's data bank on registered substances and soon to be registered substances: https://chem.echa.europa.eu/

Reporting, for mixtures, which methods of evaluating the information were used for the purposes of classification.

Classification		Classification procedure
Metal Corrosive 1	H290	
Skin Corrosive 1 B	H314	According to Table 3.2.3 and notes of Annex I to CLP
Aq. Chronic 3	H412	Calculation method

Adequate training for workers to guarantee the protection of human health and the environment

Training on the chemical risk ex Directive 81/08 Title IX dangerous substances
Training on PPE