

# Safety data sheet

## according to EU 2015/830

Printing date 05.01.2021

Revision: 05.01.2021

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

#### · 1.1 Product identifier

· Trade name: **riag Ni 149 Buffer**

· Article number: 149600.XXX

· 1.2 Relevant identified uses of the substance or mixture and uses advised against  
No further relevant information available.

· Application of the substance / the mixture Electroplating auxiliary

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

##### · Manufacturer/Supplier:

riag Oberflächentechnik AG

Murgstrasse 19a

CH-9545 Wängi Tel.: +41 (0)52 369 70 70 Fax: +41 (0)52 369 70 79 info@riag.ch

##### · Further information obtainable from:

riag Technik

Tel.: +41 (0) 52 369 70 80; e-mail: info@riag.ch

· 1.4 Emergency telephone number: 08:00 - 17:00: Tel. +41 52 369 70 80

### SECTION 2: Hazards identification

#### · 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

Carc. 1A H350i May cause cancer by inhalation.

STOT RE 2 H373 May cause damage to the respiratory system and the male genitalia through prolonged or repeated exposure.



GHS05 corrosion

Skin Corr. 1 H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

#### · 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS05



GHS07



GHS08

· Signal word *Danger*

· Hazard-determining components of labelling:

5-Sulphosalicylic acid dihydrate

nickel sulphate

· Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

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H350i May cause cancer by inhalation.

H335 May cause respiratory irritation.

H373 May cause damage to the respiratory system and the male genitalia through prolonged or repeated exposure.

· **Precautionary statements**

P260 Do not breathe mist/vapours/spray.

P280 Wear protective gloves / eye protection.

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.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**

Restricted to professional users.

### SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 5965-83-3 EINECS: 202-555-6	5-Sulphosalicylic acid dihydrate ☞ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315; STOT SE 3, H335	≥20-≤25%
CAS: 825-90-1 EINECS: 215-550-0	Sodium 4-hydroxybenzenesulfonate ⚠ Eye Irrit. 2, H319	≥2.5- <10%
CAS: 7786-81-4 EINECS: 232-104-9 Reg.nr.: 01-2119439361-44	nickel sulphate ⚠ Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1A, H350i; Repr. 1B, H360D; STOT RE 1, H372; ☞ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Skin Sens. 1, H317	≥0.1- <0.25%

· **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:** Immediately remove any clothing soiled by the product.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **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:**

Rinse out mouth.

Do not induce vomiting; call for medical help immediately.

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

· **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:** Use fire extinguishing methods suitable to surrounding conditions.

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

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· **Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

### SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.  
Wear protective equipment. Keep unprotected persons away.  
Avoid contact with the eyes and skin.

· **6.2 Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.  
Prevent from spreading (e.g. by damming-in or oil barriers).

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
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**

Avoid contact with the eyes and skin.  
Keep receptacles tightly sealed.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.

· **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:**

Provide acid-resistant floor.  
Prevent any seepage into the ground.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:**

Protect from frost.  
Keep container tightly sealed.  
Store receptacle in a well ventilated area.

· **Storage class:** 6.1 D

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

### SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**

7786-81-4 nickel sulphate

MAK (Switzerland)	Long-term value: 0.05e mg/m <sup>3</sup> S B CIA; als Ni berechnet
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· <b>DNELs</b>		
<b>7786-81-4 nickel sulphate</b>		
Dermal	DNEL dermal	0.0012 mg/cm <sup>2</sup> (worker) long-term local
Inhalative	DNEL inhalative systemic	25.34 mg/m <sup>3</sup> (worker) short-term
	DNEL inhalative short term	0.74 mg/m <sup>3</sup> (worker) local
	DNEL inhalative long term systemic	0.13 mg/m <sup>3</sup> (worker)
· <b>PNECs</b>		
<b>7786-81-4 nickel sulphate</b>		
PNEC	78.9 µg/L (soil)	
	22.7 µg/L (seawater)	
	9.37 µg/L (freshwater)	
· <b>Ingredients with biological limit values:</b>		
<b>7786-81-4 nickel sulphate</b>		
BAT (Switzerland)	10 µg/l	
	Medium: urine	
	Sampling time: end of exposition, on long term exposition: after several shifts	
	Parameter: Nickel	

· **Additional information:** The lists valid during the making were used as basis.

### · 8.2 Exposure controls

#### · **Personal protective equipment:**

#### · **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Keep away from foodstuffs, beverages and feed.

#### · **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

#### · **Protection of hands:**

Protective gloves

EN 374 Index 6

#### · **Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.4$  mm

#### · **Penetration time of glove material** > 480 min.

#### · **Eye protection:**

EN 166



Tightly sealed goggles

Face protection

#### · **Body protection:**

Acid resistant protective clothing

Apron

#### · **Boots made out of rubber.**

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### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

Form:	Fluid
Colour:	Green
· Odour:	Recognisable
· Odour threshold:	Not determined.

· pH-value at 20 °C: <1

##### · Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.

· Flash point: Not applicable.

· Flammability (solid, gas): Not applicable.

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product does not present an explosion hazard.

##### · Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure: Not determined.

· Density at 20 °C: 1.08-1.13 g/cm<sup>3</sup>

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with water:

Fully miscible.

· Partition coefficient: n-octanol/water: Not determined.

##### · Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

· 9.2 Other information: No further relevant information available.

### 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: No dangerous reactions known.

· 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 toxicological effects

· Acute toxicity: Based on available data, the classification criteria are not met.

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· <b>LD/LC50 values relevant for classification:</b>		
<b>5965-83-3 5-Sulphosalicylic acid dihydrate</b>		
Oral	LD50	2,450 mg/kg (rat)
<b>7786-81-4 nickel sulphate</b>		
Oral	LD50	275 mg/kg (rat)

- **Primary irritant effect:**

- **Skin corrosion/irritation**

Causes severe skin burns and eye damage.

- **Serious eye damage/irritation**

Causes serious eye damage.

- **Respiratory or skin sensitisation**

May cause an allergic skin reaction.

- **Additional toxicological information:**

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

- **Carcinogenicity**

May cause cancer by inhalation.

- **Reproductive toxicity** Based on available data, the classification criteria are not met.

- **STOT-single exposure**

May cause respiratory irritation.

- **STOT-repeated exposure**

May cause damage to the respiratory system and the male genitalia through prolonged or repeated exposure.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

- **12.1 Toxicity**

· <b>Aquatic toxicity:</b>	
<b>5965-83-3 5-Sulphosalicylic acid dihydrate</b>	
EC50 (48h) (static)	>100 mg/L (Daphnia magna) (OECD 202)
EC50 (72h) (static)	>100 mg/L (pseudokirchneriella subcapitata) (OECD 201)
<b>7786-81-4 nickel sulphate</b>	
LC50 (48h)	2.7 mg/L (crustaceae)
LC50 (96h)	14.7 mg/L (fish)
EC50 (48h)	1 mg/L (crustaceae)
EC50 (96h)	18.4 mg/L (Algae)

- **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.

- **Additional ecological information:**

- **General notes:**

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

Must not reach sewage water or drainage ditch undiluted or unneutralised.

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Other adverse effects** No further relevant information available.

## 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.

Hand over to hazardous waste disposers.

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· **European waste catalogue**

11 01 98\* other wastes containing hazardous substances

15 01 10\* packaging containing residues of or contaminated by hazardous substances

· **Uncleaned packaging:**· **Recommendation:**

Packaging may be reused or recycled after cleaning.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.**SECTION 14: Transport information**· **14.1 UN-Number**· **ADR, IMDG, IATA**

UN2586

· **14.2 UN proper shipping name**· **ADR**

2586 ARYLSULPHONIC ACIDS, LIQUID

· **IMDG, IATA**

ARYLSULPHONIC ACIDS, LIQUID (5-Sulphosalicylic acid dihydrate)

· **14.3 Transport hazard class(es)**· **ADR**· **Class**

8 (C3) Corrosive substances.

· **Label**

8

· **IMDG, IATA**· **Class**

8 Corrosive substances.

· **Label**

8

· **14.4 Packing group**· **ADR, IMDG, IATA**

III

· **14.5 Environmental hazards:**

Not applicable.

· **14.6 Special precautions for user**

Warning: Corrosive substances.

· **Hazard identification number (Kemler code):**

80

· **EMS Number:**

F-A,S-B

· **Segregation groups**

Acids

· **Stowage Category**

B

· **Segregation Code**SG36 Stow "separated from" SGG18-alkalis.  
SG49 Stow "separated from" SGG6-cyanides· **14.7 Transport in bulk according to Annex II of****Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **ADR**· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

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· <b>Transport category</b>	3
· <b>Tunnel restriction code</b>	E
<hr style="border-top: 1px dashed black;"/>	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 2586 ARYLSULPHONIC ACIDS, LIQUID, 8, III

### SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 27, 28

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **National regulations:** -

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

Employment restrictions concerning juveniles must be observed.

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

### 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.

· **Relevant phrases**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H350i May cause cancer by inhalation.

H360D May damage the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

· **Abbreviations and acronyms:**

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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

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*LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**Acute Tox. 4: Acute toxicity – Category 4**Skin Corr. 1: Skin corrosion/irritation – Category 1**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**Resp. Sens. 1: Respiratory sensitisation – Category 1**Skin Sens. 1: Skin sensitisation – Category 1**Muta. 2: Germ cell mutagenicity – Category 2**Carc. 1A: Carcinogenicity – Category 1Ai**Repr. 1B: Reproductive toxicity – Category 1B**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1**STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1*

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