

Adhesive Nickel Bath JE303

Revision date: 22.02.2023

Product code: 70

Page 1 of 10

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Adhesive Nickel Bath JE303

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Plating agents and metal surface treating agents

1.3. Details of the supplier of the safety data sheet

Company name:	Jentner Plating Technology GmbH	
Street:	Johann-Staib-Strasse 2	
Place:	D-75179 Pforzheim	
Telephone:	+49 (0)7231 418094 0	Telefax: +49 (0)7231 418094 77
e-mail:	info@jentner.de	
Contact person:	Department of Chemistry	
Internet:	www.jentner.de	
Responsible Department:	Poison Information Center of the University of Freiburg.	

1.4. Emergency telephone number:

0049 (0)761 19240 - 24 h german and english

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**

Acute Tox. 4; H302
 Acute Tox. 4; H332
 Skin Irrit. 2; H315
 Resp. Sens. 1; H334
 Skin Sens. 1; H317
 Muta. 2; H341
 Carc. 1A; H350i
 Repr. 1B; H360D
 STOT RE 1; H372
 Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation****Hazard components for labelling**

nickel dichloride

Signal word: Danger**Pictograms:****Hazard statements**

H302+H332	Harmful if swallowed or if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Adhesive Nickel Bath JE303

Revision date: 22.02.2023

Product code: 70

Page 2 of 10

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284	Wear respiratory protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P302+P352	IF ON SKIN: Wash with plenty of water.
P321	Specific treatment (see 4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/container to an officially registered waste disposal company.

Special labelling of certain mixtures

Restricted to professional users.

Labelling of packages where the contents do not exceed 125 ml**Signal word:** Danger**Pictograms:****Hazard statements**

H317-H334-H341-H350i-H360D-H372

Precautionary statements

P201-P202-P260-P270-P272-P280-P284-P302+P352-P321-P362+P364-P304+P340-P342+P311-P308+P313-P405-P501

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

Adhesive Nickel Bath JE303

Revision date: 22.02.2023

Product code: 70

Page 3 of 10

Hazardous components

CAS No	Chemical name	EC No	Index No	REACH No	Quantity
		Classification (GB CLP Regulation)			
7718-54-9	nickel dichloride				20 %
	231-743-0		028-011-00-6		
	Carc. 1A, Muta. 2, Repr. 1B, Acute Tox. 3, Acute Tox. 3, Skin Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 1; H350i H341 H360D H331 H301 H315 H334 H317 H372 H400 H410				
-	hydrochloric acid 33/34 %				2-5 %
	231-595-7		017-002-01-X		
	Skin Corr. 1B, STOT SE 3; H314 H335				

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
7718-54-9	231-743-0	nickel dichloride	20 %
		inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); oral: LD50 = 105 - 681 mg/kg Skin Irrit. 2; H315: >= 20 - 100 Skin Sens. 1; H317: >= 0,01 - 100 STOT RE 1; H372: >= 1 - 100 STOT RE 2; H373: >= 0,1 - < 1 Aquatic Acute 1; H400: M=1 Aquatic Chronic 1; H410: M=1	
-	231-595-7	hydrochloric acid 33/34 %	2-5 %
		Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25 STOT SE 3; H335: >= 10 - 100	

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.

After contact with skin

If skin irritation or rash occurs: Get medical advice/attention.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Call a physician in any case!

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂). Foam. Water. Extinguishing powder. Water spray. alcohol resistant foam. Dry extinguishing powder.

Unsuitable extinguishing media

High power water jet.

Adhesive Nickel Bath JE303

Revision date: 22.02.2023

Product code: 70

Page 4 of 10

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Hydrogen chloride (HCl)

5.3. Advice for firefighters

Wear chemical resistant suit.

Additional information

Contaminated fire-fighting water must be collected separately.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Keep away from unprotected people. Keep upwind.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**Other information**

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Always close containers tightly after the removal of product.

Advice on protection against fire and explosion

Non-combustible liquids

Advice on general occupational hygiene

Do not eat, drink, smoke or sneeze at the workplace.

Keep away from food, drink and animal feedingstuffs.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep only in the original container.

7.3. Specific end use(s)

Metal surface treatment products

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Additional advice on limit values**

To date, no national critical limit values exist.

8.2. Exposure controls

Adhesive Nickel Bath JE303

Revision date: 22.02.2023

Product code: 70

Page 5 of 10

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Tightly sealed safety glasses.

Hand protection

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Skin protection

Wear personal protection equipment.

Respiratory protection

Ensure suitable suction / aeration at the workplace or on the machines.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid	
Colour:	dark green	
Odour:	to chlorine	
Boiling point or initial boiling point and boiling range:		ca. 95 °C
Decomposition temperature:		not determined
pH-Value (at 20 °C):		< 1
Water solubility:		unbegrenzt
Solubility in other solvents		
not determined		
Vapour pressure:		23 hPa
(at 20 °C)		
Density (at 20 °C):		ca. 1,15 g/cm ³

9.2. Other information**Information with regard to physical hazard classes**

Explosive properties
not explosive.

Oxidizing properties
Not oxidising.

Other safety characteristics

Solvent separation test: not applicable
Sublimation point: not determined

SECTION 10: Stability and reactivity**10.3. Possibility of hazardous reactions**

Reacts with :
Alkalis (alkalis).
Ammonia.
Oxidizing agents.

10.4. Conditions to avoid

Thermal decomposition can lead to the escape of irritating gases and vapours.

10.5. Incompatible materials

Violent reaction with: alkalines

Adhesive Nickel Bath JE303

Revision date: 22.02.2023

Product code: 70

Page 6 of 10

10.6. Hazardous decomposition products

Hydrochloric gas.

Further information

Gas/vapours, irritant.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Harmful if swallowed.

Harmful if inhaled.

Harmful if swallowed or if inhaled.

ATEmix calculated

ATE (oral) 525,0 mg/kg; ATE (inhalation vapour) 15,00 mg/l; ATE (inhalation dust/mist) 2,500 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7718-54-9	nickel dichloride				
	oral	LD50 mg/kg	105 - 681	Rat	GESTIS
	inhalation vapour	ATE	3 mg/l		
	inhalation dust/mist	ATE	0,5 mg/l		

Irritation and corrosivity

Causes skin irritation.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.
corrosive.**Sensitising effects**

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (nickel dichloride)

May cause an allergic skin reaction. (nickel dichloride)

May cause an allergic skin reaction.

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

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing genetic defects. (nickel dichloride)

May cause cancer by inhalation. (nickel dichloride)

May damage the unborn child. (nickel dichloride)

Suspected of causing genetic defects.

May cause cancer by inhalation.

May cause harm to the unborn child.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure. (nickel dichloride)

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information**12.1. Toxicity**

Very toxic to fish.

Adhesive Nickel Bath JE303

Revision date: 22.02.2023

Product code: 70

Page 7 of 10

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
-	hydrochloric acid 33/34 %					
	Acute fish toxicity	LC50	862 mg/l	96 h	Leuciscus idus	

12.2. Persistence and degradability

not determined

12.3. Bioaccumulative potential

not determined

12.4. Mobility in soil

If product enters soil, it will be mobile and may contaminate groundwater.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****List of Wastes Code - used product**

110109 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); sludges and filter cakes containing hazardous substances; hazardous waste

Contaminated packaging

Contaminated packages must be completely emptied and can be re-used following proper cleaning.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number or ID number: UN 3287
14.2. UN proper shipping name: TOXIC LIQUID, INORGANIC, N.O.S. (Nickelchlorid)
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1



Classification code: T4
Special Provisions: 274
Limited quantity: 5 L
Transport category: 2
Hazard No: 60
Tunnel restriction code: E

Other applicable information (land transport)

: 274 - 601
: 3
: E
Special provisions: 274 335 601

Adhesive Nickel Bath JE303

Revision date: 22.02.2023

Product code: 70

Page 8 of 10

E1

Transport category: 2

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 3287
14.2. UN proper shipping name: TOXIC LIQUID, INORGANIC, N.O.S. (Nickelchlorid)
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1



Classification code: T4
Special Provisions: 274 802
Limited quantity: 5 L

Other applicable information (inland waterways transport)

E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 3287
14.2. UN proper shipping name: TOXIC LIQUID, INORGANIC, N.O.S. (Nickel chloride)
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1



Special Provisions: 223, 274
Limited quantity: 5 L
EmS: F-A, S-A
Segregation group: acids

Other applicable information (marine transport)

: 274, 909, 944

Special provisions: 223, 274, 944

E1

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 3287
14.2. UN proper shipping name: TOXIC LIQUID, INORGANIC, N.O.S. (Nickel chloride)
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1



Special Provisions: A3 A4 A137
Limited quantity Passenger: 2 L
IATA-packing instructions - Passenger: 655
IATA-max. quantity - Passenger: 60 L
IATA-packing instructions - Cargo: 663
IATA-max. quantity - Cargo: 220 L

Other applicable information (air transport)

: Y914

: A97

Adhesive Nickel Bath JE303

Revision date: 22.02.2023

Product code: 70

Page 9 of 10

: Y914

E1

: Y642

Special provisions: A3 A4 A137

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 27, Entry 75

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water hazard class (D):

3 - highly hazardous to water

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 2.

Abbreviations and acronyms

ADR: Accord européen sur le transport 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 Harmonized 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

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Adhesive Nickel Bath JE303

Revision date: 22.02.2023

Product code: 70

Page 10 of 10

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Acute Tox. 4; H332	Calculation method
Skin Irrit. 2; H315	Calculation method
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method
Muta. 2; H341	Calculation method
Carc. 1A; H350i	Calculation method
Repr. 1B; H360D	Calculation method
STOT RE 1; H372	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H302+H332	Harmful if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
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.
H411	Toxic to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)