Safety data sheet
According to Regulation n. 1907/2006 and Regulation 830/2015
BLUCLAD 750 RPM 100

Revision n. IV dd 01.21.2019
Replaces revision n III dd 06.29.2017

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

1.1 Product Identifier

Commercial name	Bluclad 750 RPM 100

1.2 Pertinent use of the substance and recommended use

Industrial sector and electroplating industry
Additive for electroplating baths

1.3 Informations about the furniture of the safety data sheet

Name	FAGGI ENRICO S.P.A.
Address	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: Tel. 0557947819 Centro Antiveleni di Firenze

1.5 Registration number

For this product is not available a registration number as a mixture

2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture in accordance with Regulation (CE) n. 1272/2008

Hazard classes	Category codes	Hazard statements
Skin corr.	1B	H314
Skin sens.	1	H317
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

2.2 Label elements

Pittogrammi

Warnings **DANGER**

Hazard statements		
	H314	Causes severe skin burns and eye damage
	H317	May cause an allergic skin reaction
	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
	H341	Suspected of causing genetic defects
	H350i	May cause cancer
	H360D	May damage the unborn child

	H410	Very toxic to aquatic life with long-lasting effects
Safety Advice	P261	Avoid breathing dust/fumes/gas/mist/vapours/spray.
	P263	Avoid contact during pregnancy /while nursing
	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/ shower.
	P308+P313	If exposed: Call a POISON CENTER or doctor/physician

- **Futher Informations** None
  Results of PBT e vPvB **PBT :** not applicable
  vPvB : not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 mixture

Product Identifier	**Concentration**	**Classification**	
		Hazard classes Category codes	**Hazard Statements**
Ammonia	5% ≤ C ≤ 20%	Skin corr. 1A	H314
CAS 1336-21-6		STOT SE 3	H335
Reach n. 01-2119488876-14		Aquatic acute 1	H400
Dichloro palladium tetrammino	20% ≤ C ≤ 30%	Met. Corr.1	H290
		Acute tox. 4	H302
CAS 13815-17-3		Skin sens.1	H317
		Eye irrit. 2	H319
		Aquatic acute 1	H400
		Aquatic chronic 1	H410
Nickel sulfate	5% ≤ C ≤ 10%	Acute tox. 4	H302
CAS 77 86-81-4		Skin irrit. 2	H315
Reach n. 01-2119439361-44		Skin sens. 1	H317
		Acute tox. 4	H332
		Resp. sens.1	H334
		Muta. 2	H341
		Carc. 1A	H350i
		Repr. 1B	H360D
		STOT RE 1	H372
		Aquatic chronic 1	H410

4. FIRST-AID MEASURES

4.1 Description of the first-aid measures

Inhalation If the subject is unconsciousness bring patient into stable side position for transportation

Ingestion	Rinse mouth thoroughly. If the person is conscious, make him drink plenty of water. If the subject is unconscious, arrange to keep open the respiratory tracts. Call a doctor for medical treatment.
Skin contact	Take off immediately all contaminated clothing, and wash immediately with plenty of water and soap
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes after removing contact lenses, occasionally lifting the upper and lower eyelids. Do not use eye drops or creams.

Recommendations:

- **Need for immediate medical attention** YES
- **Possibility of delayed effects subsequent the exposition** YES
- **Move the exposed individual from the area to fresh air** YES
- **Remove clothes and shoes from the individual** YES
- **Modality of manipulation of contaminated garments** With gloves
- **For lenders of first aid, wear the DPI** YES

4.2 Main symptoms and effects both acute and delayed

Strong sting and pain. Coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Burns to the mouth, vomiting, diarrhea, edema, larynx swelling. Redness, pain, and watery eyes. Abdominal pain.

4.3 Indication of the possible urgency to consult immediately a doctor or of special treatments

In case of ingestion, inhalation or skin contact get medical attention immediately

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	CO_2, powder or water spray
Unsuitable extinguishing media	None in particular

5.2 Special hazards arising from the substance or the mixture

May occur a pressure increase . Possible exhalations of ammonia fumes, nitrogen oxides or sulfur oxides

5.3 Advice for firefighters

General informations	Avoid that the water used to extinguish the fire goes into sewage system, aquifers or to superficial waters.
Equipment	Normal garments for firefighting, as an air breathing apparatus (ref. standard EN 137) or fresh air hose breathing, protective clothing for welding (EN 469), flame resistant gloves (EN659) and fireman's boots (HOA29 or A30)

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Get away immediately from the contaminated area.

6.1.2. For emergency responders

Wear:
Chemical risks Gloves conform to the standards EN420 EN374
Complete clothing complying with the UNI EN 13034: 2006 regulation

Mask with ABEK P3 filters

6.2 Environmental precautions

Prevent product from going into sewers and water sources or soil. In case of seepage into water or sewage system or in case of seepage into the ground inform responsible authorities

6.3 Methods and materials for containment and clean-up

6.3.1. Recommendations about the methods of containment of a spill

Collect the liquid with absorbent material (sand, universal binder, sawdust).

6.3.2. Recommendations about the methods of reclamation of a spill

Collect the product mechan Wash with plenty of water

6.3.3. Any other informations

Dispose of contaminated material according to item 13. Ensure adequate ventilation

6.4 Reference to other sections

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7. HANDLING AND STORAGE

7.1. Preacautions for safe handling

7.1.1. Recommendations that allow safe handling of the substance or mixture, such as containment and measures to prevent fine as well as aerosol and dust generation

Use in areas with a good ventilation

7.1.2. Advice on general occupational hygiene

Do not eat, drink or smoke in designated work areas. Wash hands after handling. To remove contaminated clothing and protective equipment before entering eating areas

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Risk management decisions arising from explosive atmospheres, corrosive conditions, flammability hazards, incompatible materials, evaporative conditions, potential ignition sources

Store away from flammable materials

7.2.3. Containment of the effects of weather conditions, pressure, temperature, sunlight, humidity and vibrations

Store in sealed and labeled containers. Keep away from acids

7.2.4. Conditions to maintain the integrity of the substance or mixture

Opened containers must be resealed and kept upright

7.2.5. Decisions about ventilation requirements, specific design for storage rooms or vessels, quantitative limits in storage conditions , compatibility of the packaging.

The storage rooms must be ventilated and free from sewage

7.3. Specific end use

Product for galvanic

8. EXPOSURE CONTROL/ INDIVIDUAL PROTECTION

8.1. Controller parameters

AMMONIA

TWA 8 / h 17 mg / m^3 25 ppm TLV-ACGIH
STEL 15 / m 24 mg / m^3 35 ppm TLV-ACGIH
TWA 8 / h 14 mg / m^3 20 ppm OEL

STEL 15 / m 36 mg / m^3 50 ppm OEL
DNEL / DMEL (inhalation) 36 mg / m^3 acute local
DNEL / DMEL (inhalation) 47.6 mg / m^3 acute systemic
DNEL / DMEL (inhalation) 14 mg / m^3 Chronic local
DNEL / DMEL (dermal) 6.8 mg / kg acute systemic
DNEL / DMEL (dermal) 6.8 mg / kg Chronic systemic
NICKEL SULFATE
TWA 8/H 0,1 mg/m^3 TLV-ACGHIC

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Use under a fume hood. Periodically check suction flow.
Workplace showers should be available and emergency and eyewash systems

8.2.2. Individual measures, such as personal protective equipment

Eye/face protection	Protective glasses complying with 89/686/CEE and EN166:2001 regulation
Skin protection (hands)	Protective gloves material complying with EN420 and E374 regulations
Skin protection (body)	Complete clothing antacid complying with UNI EN 13034: 2006 type 6 regulation
Respiratory protection	Mask with B filter in case of exceeding of the threshold values
Thermal hazards	None

8.2.3. Environmental exposure controls

Keep suction all environments using capture systems localized. Conveying the withdrawn volumes to an abatement system and then into the atmosphere. Do not use vacuum systems to air recirculation

9. PROPERTIES (PHYSICAL/CHEMICAL)

9.1 Informations about the main physical and chemical properties

Aspect	Liquid dark blue
Odour	Ammoniacal
Odour threshold	Not applicable
pH	At 20° 8 - 10
Melting point/freezing point	-57 °C
Intial boiling point and boiling range	Undefined
Flashpoint	Not flammable
Evaporation rate	Undefined
Flammability solids/gases	Not flammable
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	No data are available
Vapour density	No data are available
Relative density	1,16 g/cm^3
Solubility/Solubilities	Soluble in water
The log octanol/water partition Coefficient	No data are available

Auto-ignition temperature	Not applicable
Decomposition temperature	No data are available
Viscosity	No data are available
Explosive properties	Not explosive
Oxidising properties	Not oxidising

9.2. Other informations (miscibility, solubility, fat solubility, conductivity, redox potential, radical formation potential and photocatalytic properties)

None

10. STABILITY AND REACTIVITY

10.1 Reactivity

The product has alkaline properties

10.2 Chemical stability

The product is stable

10.3 Possibility of hazardous reactions

Under normal use and storage conditions are not predictable hazardous reactions

10.4 Conditions to avoid

Exposure to sun and heat

10.5 Incompatible materials

Ammonia: silver, lead, zinc and their salts, hydrochloric acid, nitric acid, oleum, nitro methane and acrylic acid

10.6 Hazardous decomposition products

For thermal decomposition can be released toxic or corrosive vapors of ammonia, nitrogen oxides, sulfur oxides and nickel oxides

11. TOXICOLOGICAL INFORMATION

11.1 Informations about toxicological effects

Acute toxicity	Ammonia NOEL Oral 68 mg / kg Oral LD50 350 mg / kg Rat
Skin corrosion/irritation	Mixture Corrosive to skin
Eye damage/irritation	Mixture May cause serious eye damage
Skin sensitisation or corrosion/irritation	Mixture Sensitizing
Germ cell mutagenicity	Mixture mutagenic suspected
Carcinogenity	Mixture carcinogenic
Reproductive toxicity	Mixture toxic for reproduction
Specific target organ toxicity (STOT)-single exposure	There are no data available
Specific target organ toxicity (STOT)-repeated exposure	There are no data available
Aspiration hazard	Irritating for respiratory tracts

11.2 Specific target organ toxicity

Skin, eyes, respiratory tracts

11.3 Symptoms related to the physical, chemical and toxicological characteristic

Strong sting and pain. Coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Burns to the mouth, vomiting, diarrhea, edema, larynx swelling. Redness, pain, and watery eyes. Abdominal pain

11.4. Delayed, immediate and chronic effects from short and long term exposure

The product has a carcinogenic effect on humans by inhalation. There is sufficient evidence to establish a causal association between human exposure to the substance contained in the product and the development of tumors. The product must be handled carefully because of its possible mutagenic effects. But they are not available enough information to conclusively demonstrate heritable genetic damage. The product has a teratogenic effect on humans and causes a toxic effect on fetal development. The product may cause functional disorders or morphological mutations after repeated or prolonged exposure and / or has concerns about the possibility of accumulation in the human body. The product is corrosive and causes severe burns and blistering on the skin. In the acute phase prevail erythema, edema and exudation. In chronic phase prevail scaly, dryness, ulcerations and skin thickening. In contact with eyes it causes serious injuries and may cause corneal opacity, iris lesions, irreversible eye coloration. Possible vapors are caustic for the respiratory system and may cause pulmonary edema, whose symptoms manifest themselves, sometimes after a few hours.

11.5. Interactive effects

There are no interactive effects known

11.6. In the absence of specific data

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11.7. Other informations

None

12. ECOLOGICAL INFORMATIONS

Aquatic Toxicity	Fish LC50 0,89 mg / l / 96h Crustaceans EC50 0.101 mg / l / 48h Crustaceans Chronic NOEC 0.79 mg / l
Persistence and degradability	Biodegradable
Bioaccumulation potential	-0.64 Mg / l (partition coefficient n-octanol /water) 13.8 mg / l (Soil / water partition coefficient)
Mobility in soil	Data are not available
Results of PBT e vPvB	Data are not available
Other adverse effects	Data are not available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

This product and its packaging must be disposed of in licensed facilities.

14. TRANSPORT INFORMATIONS

UN number	3266
Name	corrosive liquid inorganic

			basic n.o.s. (ammonia solution)
		Hazard class	8
		Pack Group	II
		Environmental Hazards	YES
		Special precautions for user	Approved packaging

15. REGULATORY INFORMATION

15.1 **Legislation** — **Applicability**

Reg. (CE) 1907/2006/CE Reach	YES
Reg. (CE) 1272/2008 CLP and subsequent amendments and addenda	YES
Reg. (CE) 2037/2000 "Substances that deplete the ozone layer"	NO
Reg. (CE) 850/2004 "The persistent organic pollutants"	NO
Reg. (CE) 689/2008 "The export and import of dangerous chemicals"	NO
Substance listed in Annex I 2012/18/UE cd Seveso	YES
D.lgs 81/2008 Uniform Occupational Health and Safety Code	YES
DirettivE 2014/103/UE "Adr"	YES

15.2 **Chemical Safety Assessment**

A chemical safety assessment has not been carried out

16. OTHER INFORMATIONS

16.1 **Changes as compared to the previous version**

Modified sections 1 and 3

16.2 Legend to abbreviations and acronyms

ADR: European Agreement on the international carriage of goods by road
GHS: Globally Harmonised System of Classification and Labelling
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstract Service

16.3 Bibliographical references and data sources

ECHA substance data bank:
http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances

Platform ESIS

http://esis.jrc.ec.europa.eu

16.4 **Evaluating method adopted for mixtures classification**

Classification	**Procedura di classificazione**
STOT RE 1	Method of calculation
Skin sens. 1	Method of calculation
Skin corr. 1B	Method of calculation
Resp. Sens. 1	Method of calculation
Repr. 1B	Method of calculation
Muta 2	Method of calculation

Carc. 1A	Method of calculation
Aquatic Chronic 1	Method of calculation
Aquatic Acute 1	Method of calculation

16.5. **Advice on any training appropriate for workers to ensure protection of human health and the environment**

- Training sessions on Chemical Risk pursuant to Legislative Decree 81/08 Title IX hazardous substances
- Training sessions on DPI

16.6. **. Other informations**

Not available