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

1.1 Product identifier

Commercial name	BLUCLAD 750 RPM 200 Ni
Product code	170
Registration number	A registration number is not available for this product as it is a mixture

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

Intended uses	Additive for galvanic baths for industrial use
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

Ph. 0557947819 Poison Control Center of Florence

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture according to Regulation (EC) n. 1272/2008

Hazard classes	Category codes	Hazard statements
Skin Corr.	1B	H314
Skin Sens.	1	H317
Resp. Sens.	1	H334
STOT SE	3	H335
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

Pictograms

Signal words **DANGEROUS**

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
		H335	It can irritate the respiratory tract
		H341	Suspected of causing genetic defects
		H350i	May cause cancer if inhaled
		H360D	It can harm the unborn child
		H372	Causes damage to organs through prolonged or repeated exposure
		H410	Very toxic to aquatic life with long lasting effects
	Precautionary statements	P261	Avoid breathing dust / fume / gas / mist / vapors / spray.
		P263	Avoid contact during pregnancy / breastfeeding
		P280	Wear protective gloves / clothing / eye protection / face protection.
		P301+P330+P331	IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
		P303+P361+P353	IN CASE OF CONTACT WITH SKIN (or hair): Immediately take off all contaminated clothing; rinse the skin / take a shower.
		P308+P313	IF exposed or likely to be exposed: Get medical attention

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**
Ammonia CAS 1336-21-6	**15-25%**	Skin corr. 1 B	H314
		STOT SE 3	H335

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EC: 215-647-6 n. Reach 01-2119488876-14-XXXX M factor acute toxicity: 1		Aquatic acute 1	H400
Nickel sulfate CAS 10101-97-0 CE 232-104-9 INDEX 028-009-00-5 N.Reach 01-2119439361-44-XXXX M factor chronic toxicity: 1	15-20%	Acute Tox. 4 Skin Irrit. 2 Skin Sens. 1 Acute Tox. 4 Resp. Sens. 1 Muta. 2 Carc. 1A Repr. 1B STOT RE 1 Aquatic Chronic 1	H302 H315 H317 H332 H334 H341 H350i H360D H372 H410

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Call the doctor immediately. In the meantime, take the subject out into the open air, away from the scene of the accident. If breathing stops or is difficult, give artificial respiration taking appropriate precautions for the rescuer.

Ingestion: Do not induce vomiting. Give as much water to drink as possible and call a doctor immediately.

Skin contact: Remove contaminated clothing and wash thoroughly with plenty of water and mild soap.

Eye contact: Rinse with plenty of running water for at least 15 minutes while keeping the eyelids open (remove contact lenses if it is easy to do so).

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

Strong burning and pain. Cough, asthmatic breathing, laryngitis, shortness of breath, headache, nausea and vomiting. Burns to the mouth, vomiting, diarrhea, edema, swelling of the larynx. Redness, pain and watery eyes. Abdominal pain.

4.3 Indication of any immediate medical attention and special treatment needed

Call a physician immediately.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Fire extinguisher with CO_2 or powder or water spray. Extinguish large fires with water spray or alcohol-resistant foam.

Non suitable extinguishing media: None in particular.

5.2 Special hazards arising from the substance or mixture

In case of a fire or if heated, a pressure increase will occur, and the container may burst. Possible formation of ammonia vapors.

5.3 Advice for firefighters

General information: Isolate the area by removing all people in case of fire. Prevent the water used to extinguish the fire from flowing into the sewer, groundwater, or surface 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

Move away from the contaminated area immediately and keep upwind.

6.1.2. For emergency responders

Use :

Chemical risk gloves compliant with EN420 EN374 standards.
Splash goggles compliant with Directive 89/686 / CEE and standard EN166: 2001.
Complete antacid clothing compliant with the UNI EN 13034: 2006 type 6 standard.
Mask with K-type filters compliant with EN14387: 2004 + A1: 2008.

6.2 Environmental precautions

Prevent infiltration into the sewer, ground water and surface water.
In case of infiltration into bodies of water or sewers, notify the competent authorities.
In case of penetration into the ground, notify the competent authorities.

6.3 Methods and material for containment and cleaning up

6.3.1. Advice to contain a spill

Collect liquid with absorbent material (sand, universal binder, sawdust). Prevent infiltration into sewers / surface water / groundwater.

6.3.2. Advice to clean-up a spill

Wash with plenty of water and dispose of at authorized companies.

6.3.3 Any other information

Disposal of contaminated material in accordance with point 13. Provide adequate ventilation.

6.4 Reference to other sections

None

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7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Raccomentations to manipulate the substance or the mixture in a safe manner, such as containement measures and prevention of fire and aereosol and powders formation

Use the mixture only in the presence of adequate aspiration.

7.1.2. General recommendation on work hygiene

Do not eat, drink, or smoke in work areas; wash hands thoroughly after use and remove contaminated clothing and protective equipment before entering areas where you eat.

7.2. Conditions for safe storage, including any incompatibilities

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

Keep the container tight and sealed until use. Keep away from acid substances.

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

Store in the original container protected from direct sunlight in a dry, cool, and well-ventilated area.

7.2.4. Conditions for keeping substances / mixtures intact

Open containers must be resealed and kept straight.

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

Use ADR-approved packaging and store them in a containment basin equal to the capacity of the packaging with greater volume in rooms without sewage drains.

7.3. Specific end use(s)

Industrial use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

There are no known parameters for this mixture. Below are the data for the individual substances:

AMMONIA
TWA 8 / h 17 mg / m3 25 ppm TLV-ACGIH
STEL 15 / m 24 mg / m3 35 ppm TLV-ACGIH
TWA 8 / h 14 mg / m3 20 ppm OEL
STEL 15 / m 36 mg / m3 50 ppm OEL
DNEL / DMEL (inhalation) 36 mg / m3 local acute
DNEL / DMEL (inhalation) 47.6 mg / m3 systemic acute
DNEL / DMEL (inhalation) 14 mg / m3 local chronic
DNEL / DMEL (dermal) 6.8 mg / kg systemic acute
DNEL / DMEL (dermal) 6.8 mg / kg chronic systemic

NICKEL SULPHATE
TWA 8 / H 0.1 mg / m3 TLV-ACGHIC

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Use only under suction and in the vicinity of an emergency shower and an eyewash. Periodically check the range of the extractor hood.

8.2.2. Individual protection measures, such as personal protective equipment

Eye/face protection	Protective glasses (EN166 standard)
Skin protection (hands)	Gloves compliant with EN734 standard
Skin protection (body)	Work clothes with long sleeves and safety footwear compliant with Dir. 89/686 / EEC and EN ISO 20344 standard.
Respiratory protection	Mask with type B filter in case of exceeding the threshold values
Thermal hazards	nobody

8.2.3. Environmental exposure controls

Maintain all environments in suction using localized collection and ambient air exchange systems. Convey the aspirated volumes to an abatement system and then into the atmosphere. Do not use air recirculation suction systems. Avoid any spill into the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	Dark blue
Odour	ammoniacal
Melting point/freezing point	- 57 ° C
Boiling point or initial boiling point and boiling range	80 ° C
Flammability	Not inflammable
Lower and upper explosion limit	Lower explosion limit: 15.4% (V) relative to the mixture of ammonia and water at 25%
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
pH	8.5 - 9.5
Kinematic viscosity	No data available
Solubility	Fully miscible in water
Partition coefficient n-octanol/water (log value)	Not applicable

Vapour pressure	635 hPa at 20 ° C
Density and/or relative density	1.15 g / ml
Relative vapour density	Data not available
Particle characteristics	Not applicable

9.2. Other information

None

10. STABILITY AND REACTIVITY

10.1 Reactivity

The product has alkaline properties.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Under normal conditions of use and storage no dangerous reactions are foreseeable.

10.4 Conditions to avoid

Overheating

10.5 Incompatible materials

Silver, lead, zinc and their salts, hydrochloric acid, nitric acid, oleum, nitro methane and acrylic acid.

10.6 Hazardous decomposition prodoucts

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

11. TOXICOLOGICAL INFORMATION

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

Acute toxicity	Ammonia
Skin corrosion/irritation	NOEL Oral 68 mg / kg
Serious eye damage/irritation	LD50 Prale 350 mg / kg Rat
Respiratory or skin sensitization	Mixture - Corrosive to the skin
Germ cell mutagenicity	Mixture - Causes eye damage
Carcinogenicity	Mixture - Sensitizer
Reproductive toxicity	Mixture - Suspected mutagen
(STOT) single exposure	Mixture - Carcinogenic
(STOT) repeated exposure	Mixture - Toxic for reproduction
Aspiration hazard	Data not available

11.2 Information on other hazards

Symptoms related to the physical, chemical and toxicological characteristics

Strong burning and pain. Cough, asthmatic breathing, laryngitis, shortness of breath, headache, nausea and vomiting. Burns to the mouth, vomiting, diarrhea, edema, swelling of the larynx. Redness, pain and watery eyes. Abdominal pain.

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 link between human exposure to the substance contained in the product and the development of tumors. The product is to be considered with suspicion due to possible mutagenic effects. However, insufficient information is available to definitively demonstrate hereditary genetic alterations. The product has a teratogenic effect on humans and causes a toxic effect on the development of the fetus. The product can produce functional disturbances or morphological changes, due to repeated and prolonged exposure and / or presents concern for the possibility of accumulation in the human body.
The product is corrosive and causes severe burns and blisters on the skin. In the acute phase, erythema, edema and exudation prevail. In chronic phases, scales, dryness, fissuring and thickening of the skin prevail.
In contact with the eyes it causes serious injuries and can cause opacity of the cornea, iris injury, irreversible eye coloring. Any vapors are caustic to the respiratory system and can cause pulmonary edema, the symptoms of which sometimes appear after a few hours.

Interactive effects

No interactive effects are known

Absence of specific data

No specific data are known for this mixture; the data of the substances contained (ammonia and nickel sulphate) were therefore used

12. ECOLOGICAL INFORMATION

As it is not possible to provide specific data on the mixture, the following data are provided for the substance ammonium vanadate.

12.1	**Toxicity**	LC50 Fish 0,89 mg / l / 96h EC50 Crustaceans 0,101 mg / l / 48h Chronic NOEC Crustaceans 0.79 mg / l
12.2	**Persistence and degradability**	Readily biodegradable in plants and soils.
12.3	**Bioaccumulative potential**	-0,64 Log POW
12.4	**Mobility in soil**	Not available data
12.5	**Results of PBT and vPvB assessment**	Not available data
12.6	**Endocrine disrupting properties**	No known effects
12.7	**Other adverse effects**	Not available data

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Either the mixture or packages must be sent to approved facilities for the disposal of industrial wastes.

14. TRANSPORT INFORMATION

14.1	**UN number or ID number**	**ONU: 3266**
14.2	**UN proper shipping name**	Basic corrosive inorganic liquid n.o.s. (ammonia)
14.3	**Transport hazard class(es)**	8
14.4	**Packing group**	II

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14.5	**Environmental hazards**	YES
14.6	**Special precautions for user**	Use approved packaging
14.7	**Maritime transport in bulk according to IMO instruments**	Not applicable

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/EU cd Seveso	YES
	Directive 81/2008 Consolidated Act on protection of health and work safety	YES
	Directive 2014/103/UE "Adr"	YES

15.2 **Chemical safety assessment**

A chemical safety assessment was not carried out.

16. OTHER INFORMATION

Changes compared to the previous edition

Regulatory adaptation. Variation to points 2 and 3

Acronim and abbreviation legend

ADR: Agreement concerning the International Carriage of Dangerous Goods by Road
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstract Service

Main references and data sources

ECHA's data bank on registered substances and soon to be registered substances:
http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances

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

Classification		**Classification procedure**
STOT SE 3	H335	Calculation method
STOT RE 1	H372	Calculation method
Skin Sens. 1	H317	Calculation method
Skin Corr. 1B	H314	Calculation method
Resp. Sens. 1	H334	Calculation method
Repr. 1B	H360d	Calculation method
Muta 2	H341	Calculation method
Carc. 1A	H350i	Calculation method
Aquatic Chronic 1	H410	Calculation method
Aquatic Acute 1	H400	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 DPI