

**SAFETY DATA SHEET**  
**according to 830/2015/EC, 28.05.2015**



Date: 2011-04-18  
Update: 2017-01-12

**PATINA REMOVER**

**1. Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Trade name PATINA REMOVER  
Article number P-501

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

identified uses: A chemical mixture designed for cleaning, polishing and protection against tarnishing products made of non-ferrous metals: copper, brass, bronze, silver and gold. Leaves a long lasting shine.  
uses advised against: -

**1.3. Details of the supplier of the safety data sheet**

Manufacturer: NALMAT-Trzebinia  
Marian Krzyworzeka  
ul. Kościuszki 88  
32-540 Trzebinia  
tel. +48 32 612 10 10  
fax. +48 32 612 10 66  
[www.technicqll.pl](http://www.technicqll.pl) [office@technicqll.pl](mailto:office@technicqll.pl)  
[jakosc@technicqll.pl](mailto:jakosc@technicqll.pl)

**1.4. Emergency telephone number:**

+ 48 (032) 711 53 27 during normal office hours - Monday - Friday 6.00am - 2.00pm  
112

**2. Hazards identification**

**2.1. Classification of the substance or mixture**

Human health hazards: Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation  
Environmental hazards: Very toxic to aquatic life  
Physical and chemical hazards: -

**2.2. Label elements**

Warning symbol:



**DANGER**

Contains: ammonia, aqueous solution 25% (EC: 215-647-6), formic acid 85% (EC: 200-579-1)

H314 – Causes severe skin burns and eye damage  
H318 – Causes serious eye damage  
H335 – May cause respiratory irritation  
H400 – Very toxic to aquatic life

P102 – Keep out of reach of children  
P280 – Wear protective gloves/protective clothing/eye protection/face protection

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P302 + P352 – IF ON SKIN: Wash with soap and water  
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 to a mine waste dump

**2.3. Other hazards**

PBT – lack of information concerning fulfilment of the criteria in accordance with annex XIII of Reach Directive.  
vPvB - lack of information concerning fulfilment of the criteria in accordance with annex XIII of Reach Directive.

**3. Composition/information on ingredients**

**3.1. Substance: -**

**3.2. Mixtures:**

Description	CAS	EC	Reach No	Content %	Classification
ammonia, aqueous solution 25%	1336-21-6	215-647-6	05-2114118314-61-0000	5 ÷ 7	Skin Corr.1B, H314, Aquatic Acute1, H400 For: c>5%: STOT SE.3, H335
formic acid 85%	64-18-6	200-579-1	01-2119491174-37-XXXX	1-2	Skin Corr.1 A, H314 For: 2%≤c<10%: Eye Irrit.2, H319 Skin Irrit.2, H315

**4. First aid measures**

**4.1 Description of first aid measures**

After eye contact: Immediately flush eyes with plenty of water for at least over a dozen minutes. If irritation persists, contact a doctor.

After skin contact: Wash with warm but not hot water. Do not use neutralizing agents.

After inhalation: Ensure fresh air. Protect from loss of heat. In case of breathing difficulties seek medical advice.

After swallowing: Rinse thoroughly mouth with water. Give a diluted solution of acetate acid (100g of vinegar/1 l of water), lemon juice dissolved in water, tartaric acid or milk. Seek medical advice showing the MSDS.

**4.2. Most important symptoms and effects, both acute and delayed**

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**4.3. Indication of any immediate medical attention and special treatment needed**

The decision of the method of further procedure should be made by a doctor after exact assessment of victim's conditions.

**5. Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media: CO<sub>2</sub>, extinguishing powder, atomized water. Do not use halon extinguishers.

**5.2. Special hazards arising from the substance or mixture**

Nitrogen and nitrogen oxides.

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**5.3. Advice for firefighters**

Special protective equipment : protective clothes and self-contained breathing apparatus.

**6. Accidental release measures**

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

For persons not belonging to the staff removing the results of accident: Limit access of outsiders to the accident area until cleaning operation is finished. Avoid pollution of eyes and skin. Ensure good ventilation.

**6.2. Environmental precautions:**

Do not allow the product to reach sewage system, ground water and surface water. Inform the appropriate emergency services.

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

Small quantities of the spilled product should be covered with incombustible absorptive material e.g. sand, diatomaceous earth or sawdust take up mechanically and collect in a closed suitable, labelled container. Warning: The preparation soaked absorbents also create a fire hazard. In case of large leakage – a place of the product accumulation should be embanked.

**6.4. Reference to other sections**

Information concerning safe holding – section / chapter 7.

Information concerning personal protective equipment - section / chapter 8.

Information concerning utilisation - section / chapter 13.

**7. Handling and storage**

**7.1. Precautions for safe handling:**

Work in accordance with the principles of health and safety. Ensure good ventilation in a work place. Avoid contacts with skin, eyes and do not swallow. Keep unused packages in tightly closed.

**7.2. Conditions for safe storage, including any incompatibilities**

Store in original and tightly closed containers at temperatures: 5°C - 25°C away from the direct action of sun rays and other heat sources. Do not store near strong acid and oxidants.

**7.3. Specific end use(s)**

-

**8. Exposure controls/personal protection**

The personal protection media should fulfil the requirements of instructions of the Cabinet of 21.12.2005 (Dz. U. No. 259, pos. 2173) Directive 89/686/WE (together with later changes). The employer is obliged to ensure measures of personal protection suitable for activities that are made and their cleaning and maintenance.

**8.1. Control parameters**

Ingredients with limiting values that require monitoring in the work place.

For Ammonium: The highest permissible concentration:

NDS 14 mg/m<sup>3</sup>

NDSCH 28 mg/m<sup>3</sup>

For formic acid: The highest permissible concentration:

NDS 5 mg/m<sup>3</sup>

NDSCH 15 mg/m<sup>3</sup>

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**8.2. Exposure controls**

Observe the general rules of hygiene and safety. Ensure good ventilation in a work place. During work do not eat, drink and smoke tobacco. Wash hands before breaks and at the end of work. Avoid contacts with eyes.

**Breathing equipment:**

Work in well ventilated rooms.

In case of exposer: wear a mask with an absorber of acid vapours.

**Protection of hands and body:**

Protective gloves made of PVC

**Eye protection:**

Protective glasses.

**Protection of body:**

Working clothes.

**Environment exposure control**

Do not allow the product to reach sewage system, ground water, water reservoirs and soil.

**9. Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Psychical state	liquid
Density	1,01 - 1,05 g/cm <sup>3</sup>
Boiling point	Does not boil, decomposes below boiling point
Ignition point	-
Self-ignition point	-
Odour	-
Solubility in water	unlimited
Solubility in ketones and esters	-
Dynamic viscosity at 25°C	-

**9.2. Other information**

Lack of additional tests.

**10. Stability and reactivity**

**10.1. Reactivity**

No data.

**10.2. Chemical stability**

The product is stable if it is correctly stored and handled..

**10.3. Possibility of hazardous reactions**

Strong oxidants, metals, acids, reducing substances.

**10.4. Conditions to avoid**

Avoid open fire, higher temperatures and hot surfaces.

**10.5. Incompatible materials**

No data.

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**10.6. Hazardous decomposition products**

Nitrogen, nitrogen oxides.

**11. Toxicological information**

**11.1. Information on toxicological effects**

Irritating to eyes, respiratory system and skin.

For Ammonium:

Odour threshold: 3 mg/m<sup>3</sup>

Acute toxicity – orally:

LD50 -350 mg/kg (rat)

LD50 – 43 mg/kg (human)

Acute toxicity – inhalation:

LC50 – 7600 mg/m<sup>3</sup>/2h (rat)

LDLO 1420 mg/m<sup>3</sup>/4h (rat)

LDLO 10 000 ppm/3h (human)

For formic acid:

Acute toxicity – orally: LD50 -1100 mg/kg (rat)

Acute toxicity – inhalation: LC50 – 15 000 mg/m<sup>3</sup> (rat)

**12. Ecological information**

**12.1. Toxicity**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

For formic acid:

Toxicity for fish: LC50 -46-100 mg/l/96h (Leuciscus idus)

Toxicity for flea: EC/LC50 -34,2 mg/l/48h (Daphnia magna)

Toxicity for algae: EC/LC50 – 26,9 mg/l/72h

Toxicity for bacteria: EC/LC50 – 46,7 mg/l/17h

**12.2. Persistence and degradability**

The substances is liable to biodegradation > 90% reduction DOC(in accordance with OECD 301E/EEC 84/449, C3)

**12.3. Bioaccumulative potential**

Possesses potential to bioaccumulation.

**12.4. Mobility in soil**

No data.

**12.5. Results of PBT and vPvB assessment**

PBT Lack of information concerning fulfilment of criteria in accordance with Annex XIII of Reach Directive.

vPvB Lack of information concerning fulfilment of criteria in accordance with Annex XIII of Reach Directive.

**12.6. Other adverse effects**

No data.

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**13. Disposal considerations**

**13.1. Waste treatment methods**

Cover arisen waste an absorptive material e.g. sand, diatomaceous earth, sawdust – take up and collect in closed containers and undergo neutralization in accordance with local and state regulations. Remove polluted packages in accordance with obligatory regulations

Do not allow the product to reach sink basins, water basins and sewage system.

Small quantities at the consumer's – treat as communal waste from a household. Big quantities of the waste product should not be disposed together with communal waste. Liquidate in waste treatment/disposal plants, in accordance with obligatory regulations.

Procedure with waste packages at the consumer's:

Treat the package after the product as communal waste.

Procedure with waste packaging containing the product residues (bigger quantities)

Transfer to utilization in accordance with obligatory regulations.

Waste code:

**08 04 09** Waste adhesives and sealants containing organic solvents or other dangerous substations.

**15 01 10** Packaging containing residues of dangerous substations or contaminated with them.

**EU Legal Instruments**

Directives of European Parliament and Council 2006/12/EC and 94/62/EC ,Directive of Council 91/689/EEC

**14. Transport information**

**14.1. UN-Number: 3082**

Land transport ADR/RID and GGVSEB (international/state)	9
Sea transport IMDG/VSee:	9
Air transport ICAO – TI I IATA – DGR:	9

**14.2. Proper shipping name**

Dangerous for the environment, liquid, I.N.O

**14.3. Transport hazard class(es)**

9

**14.4. Packing group**

III

**14.5. Hazards to environment**

Very toxic to aquatic life

**14.6. Special precautions for user**

While handling the cargo, apply personal protection measures according to section 8.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: -**

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**15. Regulatory information**

**15.1. Legislation related to safety, health and environment protection specific for substance or mixture:**

The regulation of European Parliament and Council (EC) no. 1907/2006 of 18 December 2006 concerning the registration, evaluation, authorization and restriction of chemicals (REACH), for establishing the European Chemical Agency, changing the directive 1999/45/EC and cancelling the regulation of

EEC no.793/93 and the regulation of Committee(EC) no.1488/94, as well as the directive of council 76/769/EEC and the directives of Committee 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC,

The regulation of European Parliament and Council (EC) no.1272/2008 of 16 December 2008 concerning the classification, labelling and packing the substances and mixtures, changing and cancelling the directives 67/548/EEC and 1999/45/EC and changing the regulation (EC) no.1907/2006

The regulation of Committee (EC) no.790/2009 of 10 August 2009 adopting to the scientific and technological progress the regulation of European Parliament and Council (EC) no 1272/2008 of 16 December 2008 concerning the classification, labelling and packing the substances and mixtures

The regulation 453/2010/EU Council of 10.05.2010 changing the regulation no. 1907/2006/EU of European Parliament and Council concerning the registration, estimation, granting permissions and suitable limits in the range of chemicals (REACH)

The directive of European Parliament and Council no.2006/12/EC of 5 April 2006 concerning waste.

The directive of Council no. 91/689/EEC of 12 December 1991 concerning dangerous waste.

The directive of European Parliament and Council no 94/62/EU. of 20 December 1994 concerning packaging and packaging waste.

**15.2. Estimation of chemical safety:**

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**16. Other information**

Explanation of symbols in the 3 point of Safety Data Sheet:

H314 – Causes severe skin burns and eye damage

H400 – Very toxic to aquatic life

H315 – Causes skin irritation

H319 – Causes serious eye irritation

H335 – May cause respiratory irritation

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**MSDS developed by NALMAT Trzebinia**