

Toner solution

For direct toning or following a bleaching bath
Can be combined with other toning processes

BERGGER Selenium

1. Identification

Product identifier : BERGGER Selenium
Application : Toner solution
Supplier : BERGGER SAS, Les plaines de Rejatas, 87260 Vicq-sur-Breuilh
Tél. : 09 66 89 50 26
Emergency (France) : +33 (0)1 45 42 59 59

2. Hazards identification

Classification according to Regulation (EC) No 1272/2008

Acute Tox.3 H301 Toxic if swallowed.
Acute Tox.3 H331 Toxic if inhaled
Spec. Target. Tox. 2 H373 May cause damage to organs through repeated exposure
Eye Dam. 2 H319 Causes serious eye irritation.
Skin Sens. 2 H315 Causes skin irritation.

Hazard pictograms



Signal word

Danger

Hazard-determining components of labelling

Selenium
Ammonium Chloride
Sodium Sulphit

Hazard statements

H301 Toxic if swallowed.
H331 Toxic if inhaled
H373 May cause damage to organs through repeated exposure
H319 Causes serious eye irritation.
H315 Causes skin irritation.

Precautionary statements

P102 Keep out of reach of children.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing mist
P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284: Wear respiratory protection
P301+P330+P331 If Swallowed rinse mouth; do not induce vomiting.
P302+P352 If on skin: Wash with plenty of soap and water.
P303+P361+P353 If on skin: Remove/Take off immediately all contaminated clothing and Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P301+P310 If swallowed Immediately call a POISON CENTER/doctor.
P363 Wash contaminated clothing before reuse.
P337+P313 If skin irritation or rash occurs: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Mixtures

Mixture of the substances listed below with harmless additions.

Dangerous components		
CAS: 10102-18-8	Selenium Acu Tox 3 (swallowed) H301 Acu Tox 3 (inhalation) H331 Specific toxicity 2 (repeated exposure). H373	<1%
CAS: 12125-02-9	Ammonium Chloride Acu Tox 4 (swallowed) H302 Eye Irrit.2 H319	15 - 20%
CAS: 7757-83-7	Sodium Sulphite Skin Irrit. 2 H315 Eye Irrit.2 H319	15 - 30%

4. First aid measures

General information

Instantly remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 24 hours after the accident.

After inhalation Unlikely route of exposure as the product does not contain volatile substances. Move the exposed person to fresh air at once. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

After skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Contact physician if irritation continues.

After eye contact Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Contact physician if irritation persists.

After swallowing NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Remove victim immediately from source of exposure. Rinse mouth thoroughly. Drink a few glasses of water or milk. Provide rest, warmth and fresh air. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention.

5. Firefighting measures

Suitable extinguishing agents

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

Special hazards arising from the substance or mixture Can be released in case of fire

Carbon monoxide, Sulphur Dioxide (SO₂)

Advice for firefighters

Protective equipment

Do not inhale explosion gases or combustion gases.

Wear self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective clothing.
Avoid causing dust.

Environmental precautions:

Inform respective authorities in case product reaches water or sewage system.
Do not allow to enter drainage system, surface or ground water.

Methods and material for containment and cleaning up:

Dispose of contaminated material as waste according to item 13.

Reference to other sections

See Section 8 for information on personal protection equipment.

7. Handling and storage

Precautions for safe handling

Open and handle container with care.
Prevent formation of dust.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and containers: No special requirements.

Information about storage in one common storage facility:

Keep away from foodstuffs, beverages and food.

Further information about storage conditions:

Store in closed original container in a dry place. Store under well-ventilated conditions at a temperature below 25°C.

Storage class Chemical storage

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

8. Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:

Selenium (10102-18-8) : 0,2 mg/m³

Ammonium Chloride (12125-02-9): 10 mg/m³

Additional information:

The lists that were valid during the compilation were used as basis.

Exposure controls*General protective and hygienic measures*

The usual precautionary measures should be adhered to general rules for handling chemicals.

Keep away from foodstuffs, beverages and food.

Take off immediately all contaminated clothing.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Do not eat, drink or smoke while working.

Personal protective equipment

Breathing equipment: Not required.

Protection of hands:

Protective gloves. The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374.

This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

Only use chemical-protective gloves with CE-labelling of category III.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Penetration time of glove material

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Synthetic gloves

Value for permeation: Level:

>= 3 (60 min)

Not suitable are gloves made of the following materials:

Natural rubber, NR

Eye protection: Tightly sealed safety glasses or face shield.

Body protection: Protective work clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties	
<i>Appearance</i>	
Form	Fluid
Colour	Colourless / Clear
Odour	Not characteristic
pH Value at 25°C	9 / 10
Boiling point / Boiling Range	> 100°C
Ignition temperature	Not determined
Self-inflammability	Product is not selfigniting.
Danger of explosion	Product is not explosive.
Vapour pressure at 20°C	24 mbar
Density at 20°C	-
<i>Solubility in / Miscibility with</i>	
Water	miscible
<i>Solvent content</i>	
organic solvents	0.0%
water	~ 65%
<i>Other information</i>	No further relevant information available.

10. Stability and reactivity

Reactivity

Chemical stability

Stable under the prescribed storage conditions. No particular stability concerns.

Possibility of hazardous reactions Under normal conditions of storage and use, no hazardous reactions will occur.

Conditions to avoid Avoid excessive heat for prolonged periods of time

Materials to avoid Avoid contact with acids. Avoid contact with other photographic solutions and/or cleaning compounds.

Hazardous decomposition products:

Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours. Selenium Oxides of: Selenium Sulphur. Nitrogen

11. Toxicological information

Information on toxicological effects

This chemical formulation has not been tested for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Acute toxicity LD/LC50 values that are relevant for classification:		
Selenium 10102-18-8		
Oral	LD50	7 mg/kg (rat)
Ammonium Chloride 12125-02-9		
Oral	LD50	1650 mg/kg (rat)
Sodium Sulphite 7757-83-7		
Oral	LD50	2610 mg/kg (rat)

Subacute to chronic toxicity:

May cause damage to organs through repeated exposure

Additional toxicological information:

May cause allergy. May cause hypersensitivity.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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12. Ecological informations

Toxicity

Dangerous for the environment

SELENIUM

LC50/96 h <10 mg/l (Algae / Fish)

LC50/ 48 hours: 7.9 mg/l, (Daphnia magna / Invertebrates)

AMMONIUM CHLORIDE

EC50/48 h 161 mg/l (Daphnia magna)

SODIUM SULFITE

EC50/48 h 220 mg/l (Fish)

Persistence and degradability Not determined

Bioaccumulative potential Not determined

Behaviour in environmental systems: Not determined

Mobility in soil No further relevant information available.

Ecotoxic effects: No further relevant information available.

Other adverse effects No further relevant information available.

13. Disposal considerations

Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Must be specially treated under adherence to official regulations.

European waste catalogue

09 01 01 - water-based developer and activator solutions

Uncleaned packagings

Recommendation:

Non contaminated packagings can be used for recycling.

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Recommended cleaning agent: Water, if necessary with cleaning agent.

14. Transport information

Not applicable

15. Regulatory information

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

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18

December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

Guidance Workplace Exposure Limits EH40.

16. Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing data specification sheet:

BERGGER SAS

Tel.: +33 (0)9 66 89 50 26

Les Plaines de Rejatas

87260 Vicq sur Breuilh

FRANCE

e-mail: info@bergger.com

www.bergger.com

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 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Sources

applicable EEC directives: 1907/2006, 1272/2008

Internal physical tests of Calbe Chemie Laboratory, MSDS of the ingredients,

Information system on hazardous substances of the German Social Accident Insurance (GESTIS-database on hazardous substances), <http://www.dguv.de/ifa/en/gestis/stoffdb/index.jsp>