B&W Universal fixer

Liquid - Alkaline based fixer
Suitable for oth film and papers

BERGGER Berfix Neutral

1. Identification

Product identifier :	BERGGER Berfix
Application :	Photographic paper and film fixer
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

Eye Dam2A// H319 // Causes serious eye irritation.
Repr Tox. // H360 // May damage fertility or the unborn child.
Skin Irr. 2 // H315 // Causes skin irritation
Skin irr 1 // H314 // Causes severe skin burns and eye damage

Hazard pictograms

Signal word

Danger

Hazard-determining components of labelling
Acetic Acid
Sodiumsulfit
Boric Acid

Hazard statements

H319 // Causes serious eye irritation.
H360 // May damage fertility or the unborn child.
H315 // Causes skin irritation
H226 // Flammable liquid and vapor
H314 // Causes severe skin burns and eye damage

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
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.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof ventilating equipment
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe vapours.
P264 Wash … thoroughly after handling.
P270 Do no eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
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.
P308+313 If exposed or concerned: Get medical advice/attention.
P321
P330 Rinse mouth.
P363 Wash contaminated clothing before reuse.
P337+P313 If skin irritation or rash occurs: Get medical advice/attention.
P370+P378 In case of fire: Use carbon dioxide (CO2), powder, alcohol-resistant foam to extinguish
P403+P235 Store in a dry place and keep cool.
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: 7783-18-8	**Ammoniumthiosulfat**	40-60%
CAS: 7757-83-7	**Sodium Sulfit** **H315 Skin irritation 2.** **H319 - Eye Dam 2.**	<5%
CAS: 64-19-7	**Acetic Acid** H226 - Flam. 3 H314 - Skin irr 1	<5%
CAS: 10043-35-3	**Boric Acid** **H360 - Repr Tox.1B**	<2%

4. First aid mesures

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

Advice for firefighters
Protective equipment
Do not inhale explosion gases or combustion gases.
Wear self-contained breathing apparatus.
Do not use a heavy water stream.

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:

Airborne Exposure Limits:

Boric Acid

VME [mg/m³] 2 (source INRS)
VLCT [mg/m³] 6

Acetic Acid n° 64-19-7 CAS (source 2017/2398/UE)
VME [ppm]10
VME [mg/m3] 25
VLCT [ppm] 20 25
VLCT [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:

9. Physical and chemical properties

Information on basic physical and chemical properties	
Appearance	
Form	**Fluid**
Colour	**Colourless / Clear**
Odour	**Not characteristic**
pH Value at 25°C	**7**
Boiling point / Boiling Range	**> 100°C**
Ignition temperature	**Not determinated**
Self-inflammability	**Product is not selfigniting.**
Danger of explosion	**Product is not explosive.**
Density at 20°C	**-**
Solubility in / Miscibility with	
Water	**miscible**
Solvent content	
ogranic solvents	**0.0%**
water	**~ 50%**
Other information	**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 Reacts with strong acids or strong bases.

Conditions to avoid Extremely high or low temperatures.

Materials to avoid May react violently with alkalis. May react with bases, copper, silver, mercury, magnesium, zinc and their alloys. May react with Acids, alkaloids, and metallic salts.

Hazardous decomposition products:
Carbon dioxide. Carbon monoxide. Sodium oxide. Sulfur compounds.

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:**		
Acid acetic		
Oral	LD50	3.310 mg/kg (rat)
Boric Acid		
Oral	LD50	2.660 mg/kg (rat)
Dermal	LD50	>2.000 mg/kg (rabbit)
Sodium Sulfite		
Oral	LD50	2610 mg/kg (rat)

Subacute to chronic toxicity:
Possible risk of irreversible effects.

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Repr Tox. 1B for sodium tetraborate

12. Ecological informations

Toxicity

Not dangerous for the environment according to 1272/2008/CE

ACID ACETIC
EC50/48 h >1.000 mg/l (aquatic invertebra)
EC50/72 h >1.000 mg/l (seaweed)

SODIUM SULFIT
LC50 fish 1 220 - 460 mg/l

BORIC ACID
EC50 115mg/l (daphnia magna 1)
EC50 658-875 mg/l (daphnia magna 2)
LC50 5600 mg/l (Gambussia affinis)

Persistence and degradability Not determined

Bioaccumulative potential Not determined

Behaviour in environmental systems: Not determined

Mobility in soil No further relevant information available.

Ecotoxical 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.

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

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

15. Regulatory information

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

REACH

acid boric 100 1907/2006/EC Repr. A57c // annex XIV
Sodium disulfite 100 1907/2006/EC // annexe XVII
Acide acétique 100 1907/2006/EC annex XVII

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:
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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