

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

**Trade name:** **SUPERFIX PLUS**  
**Rapid fixer for B&W films**

**Article number:** 102762, 102764, 102760

**Index number:**

None of the ingredients is listed.

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

No further relevant information available.

**Application of the substance / the mixture** Fixing bath for photographic use

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

**Manufacturer/Supplier:**

TETENAL 1847 GmbH  
Schützenwall 31-35  
D-22844 Norderstedt /Germany  
Tel.: +49 (0) 40 521 45-0; Fax: +49 (0)40-52145-296  
www.tetenal.com; E-mail: info@tetenal.com

**Further information obtainable from:** Department product safety. E-Mail: sida@tetenal.com

**1.4 Emergency telephone number:**

Poison Information Centre Germany: +49 (0) 30 - 30686 700 (English and German 24 hours)

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Eye Irrit. 2 H319 Causes serious eye irritation.

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms**



GHS07

**Signal word** Warning

**Hazard statements**

H319 Causes serious eye irritation.

**Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P264 Wash thoroughly after handling.

P280 Wear eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

**2.3 Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

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### SECTION 3: Composition/information on ingredients

#### 3.2 Chemical characterisation: Mixtures

**Description:** Mixture of substances listed below and with nonhazardous additions.

#### Dangerous components:

CAS: 7631-90-5	sodium bisulphite	1-5%
EINECS: 231-548-0	☠ Acute Tox. 4, H302	
Index number: 016-064-00-8		
CAS: 107-21-1	ethylene glycol	1-5%
EINECS: 203-473-3	☠ STOT RE 2, H373; ☠ Acute Tox. 4, H302	
Index number: 603-027-00-1		
Reg.nr.: 01-2119456816-28		
CAS: 7681-57-4	sodium metabisulphite	1-5%
EINECS: 231-673-0	☠ Eye Dam. 1, H318; ☠ Acute Tox. 4, H302	
Index number: 016-063-00-2		
Reg.nr.: 01-2119531326-45		

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General information:** Take affected persons out into the fresh air.
- After skin contact:** Immediately rinse with water.
- After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:** If symptoms persist consult doctor.

#### 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

#### 5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NOx)

Carbon monoxide (CO)

Sulphur dioxide (SO<sub>2</sub>)

#### 5.3 Advice for firefighters

**Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation

#### 6.2 Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

#### 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

#### 6.4 Reference to other sections

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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### SECTION 7: Handling and storage

- . **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- . **Information about fire - and explosion protection:** No special measures required.
- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage:**
- . **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- . **Information about storage in one common storage facility:**
  - Store away from foodstuffs.
  - Store away from oxidising agents.
- . **Further information about storage conditions:**
  - Protect from heat and direct sunlight.
  - Store under lock and key and out of the reach of children.
  - Recommended storage temperature: 5-30°C
- . **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- . **Additional information about design of technical facilities:** No further data; see item 7.

#### . 8.1 Control parameters

- . **Ingredients with limit values that require monitoring at the workplace:**

##### **7631-90-5 sodium bisulphite (1-5%)**

WEL (Great Britain) Long-term value: 5 mg/m<sup>3</sup>REL (USA) Long-term value: 5 mg/m<sup>3</sup>TLV (USA) Long-term value: 5 mg/m<sup>3</sup>

##### **107-21-1 ethylene glycol (1-5%)**

WEL (Great Britain) Short-term value: 104\*\* mg/m<sup>3</sup>, 40\*\* ppm  
 Long-term value: 10\* 52\*\* mg/m<sup>3</sup>, 20\*\* ppm  
 Sk \*particulate \*\*vapour

IOELV (EU) Short-term value: 104 mg/m<sup>3</sup>, 40 ppm  
 Long-term value: 52 mg/m<sup>3</sup>, 20 ppm  
 Skin

TLV (USA) Short-term value: 10\*\* mg/m<sup>3</sup>, 50\* ppm  
 Long-term value: 25\* ppm  
 \*vapor fraction:\*\*inh. fraction, aerosol only

WEEL (USA) I (2)

##### **7681-57-4 sodium metabisulphite (1-5%)**

WEL (Great Britain) Long-term value: 5 mg/m<sup>3</sup>REL (USA) Long-term value: 5 mg/m<sup>3</sup>TLV (USA) Long-term value: 5 mg/m<sup>3</sup>

#### . **DNELs**

##### **7681-57-4 sodium metabisulphite**

Oral Long-term - systemic effects 8.6 mg/kg bw/day (general population- Verbraucher)

Inhalative Long-term - systemic effects 66 mg/m<sup>3</sup> (general population- Verbraucher)Long-term - systemic-effects 225 mg/m<sup>3</sup> (Worker (Arbeiter))

#### . **PNECs**

##### **7681-57-4 sodium metabisulphite**

Aquatic compartment - freshwater 1 mg/l (-)

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Aquatic compartment - marine water 0.1 mg/l (-)

. **Additional information:** The lists valid during the making were used as basis.

. **8.2 Exposure controls**

. **Personal protective equipment:**

. **General protective and hygienic measures:**

Do not eat, drink, smoke or sniff while working.

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

. **Respiratory protection:** Ensure adequate ventilation

. **Protection of hands:**

Impervious gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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

. **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene gloves

. **Penetration time of glove material**

Glove material	breakthrough-time	layer thickness
Butyl rubber:	≥480 min	≥0,4mm
Nitrile rubber:	≥480 min	≥0,38mm
Neoprene:	≥240 min	≥0,65mm

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

. **Eye protection:** Goggles recommended during refilling

. **Body protection:** Protective work clothing

## SECTION 9: Physical and chemical properties

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

. **General Information**

. **Appearance:**

**Form:** Fluid

**Colour:** Colourless

. **Odour:** Recognisable

. **Odour threshold:** Not determined.

. **pH-value at 20 °C:** ~5

. **Change in condition**

**Melting point/freezing point:** Undetermined.

**Initial boiling point and boiling range:** >100 °C

. **Flash point:** Not applicable.

. **Flammability (solid, gas):** Not applicable.

. **Decomposition temperature:** Not determined.

. **Auto-ignition temperature:** Product is not selfigniting.

. **Explosive properties:** Product does not present an explosion hazard.

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<b>. Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>. Vapour pressure:</b>	Not determined.
<b>. Density at 20 °C:</b>	~1.4 g/cm <sup>3</sup>
<b>. Relative density</b>	Not determined.
<b>. Vapour density</b>	Not determined.
<b>. Evaporation rate</b>	Not determined.
<b>. Solubility in / Miscibility with water:</b>	Fully miscible.
<b>. Partition coefficient: n-octanol/water:</b>	Not determined.
<b>. Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>. Solvent content:</b>	
<b>Organic solvents:</b>	0.9 %
<b>Water:</b>	25-50 %
<b>VOC (EC)</b>	0,85 %
<b>Solids content:</b>	0.0 %
<b>. 9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- . **10.1 Reactivity** No further relevant information available.
- . **10.2 Chemical stability**
- . **Thermal decomposition / conditions to be avoided:** Stable at environment temperature.
- . **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- . **10.4 Conditions to avoid** No further relevant information available.
- . **10.5 Incompatible materials:** No further relevant information available.
- . **10.6 Hazardous decomposition products:**  
 Irritant gases/vapours  
 Carbon monoxide and carbon dioxide

### SECTION 11: Toxicological information

- . **11.1 Information on toxicological effects**
- . **Acute toxicity** Based on available data, the classification criteria are not met.
- . **LD/LC50 values relevant for classification:**
- 7631-90-5 sodium bisulphite**  
     Oral LD50 1,540 mg/kg (rat)
- 107-21-1 ethylene glycol**  
     Oral LD50 5,840 mg/kg (rat)  
         9,530 mg/kg (rabbit)
- 7681-57-4 sodium metabisulphite**  
     Oral LD50 1,540 mg/kg (rat)
- . **Primary irritant effect:**
- . **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- . **Serious eye damage/irritation**  
     Causes serious eye irritation.

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- . **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- . **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- . **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- . **Carcinogenicity** Based on available data, the classification criteria are not met.
- . **Reproductive toxicity** Based on available data, the classification criteria are not met.
- . **STOT-single exposure** Based on available data, the classification criteria are not met.
- . **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- . **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- . **12.1 Toxicity**
- . **Aquatic toxicity:**
- 107-21-1 ethylene glycol**
- EC50 48 mg/l (daphnia magna (Water flea))
- LC50 96 mg/l (fish: Oncorhynchus mykiss)
- 96 mg/l (fish: Pimephales promelas)
- 7681-57-4 sodium metabisulphite**
- EC50 48 mg/l (daphnia magna (Water flea))
- LC50 96-220 mg/l (fish: Oncorhynchus mykiss)
- . **12.2 Persistence and degradability** No further relevant information available.
- . **12.3 Bioaccumulative potential** No further relevant information available.
- . **12.4 Mobility in soil** No further relevant information available.
- . **Additional ecological information:**
- . **General notes:**
- Do not allow product to reach ground water, water course or sewage system.
- Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- . **12.5 Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.
- . **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- . **13.1 Waste treatment methods**
- . **Recommendation**
- Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- . **European waste catalogue**
- 09 00 00 WASTES FROM THE PHOTOGRAPHIC INDUSTRY
- 09 01 00 wastes from the photographic industry
- 09 01 04\* fixer solutions
- . **Uncleaned packaging:**
- . **Recommendation:** Disposal must be made according to official regulations.
- . **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

- . **14.1 UN-Number**
- . **ADR, ADN, IMDG, IATA** Void

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. 14.2 UN proper shipping name	Void
. ADR	Void
. ADN, IMDG, IATA	Void
. 14.3 Transport hazard class(es)	
. ADR, ADN, IMDG, IATA	
. Class	Void
. 14.4 Packing group	
. ADR, IMDG, IATA	Void
. 14.5 Environmental hazards:	
. Marine pollutant:	No
. 14.6 Special precautions for user	Not applicable.
. 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
. UN "Model Regulation":	Void

### SECTION 15: Regulatory information

- . 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- . Labelling according to Regulation (EC) No 1272/2008 GHS label elements
- . Directive 2012/18/EU
- . Named dangerous substances - ANNEX I None of the ingredients is listed.
- . REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 65
- . 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- . **Relevant phrases**  
 H302 Harmful if swallowed.  
 H318 Causes serious eye damage.  
 H373 May cause damage to organs through prolonged or repeated exposure.
- . **Contact:** E: sida@tetenal.com
- . **Abbreviations and acronyms:**  
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
 ICAO: International Civil Aviation Organisation  
 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)  
 VOC: Volatile Organic Compounds (USA, EU)  
 DNEL: Derived No-Effect Level (REACH)  
 PNEC: Predicted No-Effect Concentration (REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Acute Tox. 4: Acute toxicity - oral – Category 4  
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1

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Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2  
\* **Data compared to the previous version altered.**

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