Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 15.04.2009 Version 6 Revision: 26.02.2009

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1 Identification of substance:

· **Product details:**

· **Trade name:** **Clarimat Universal Fixer concentrate**

· **Article number:** 00036, 07036

· **Application of the substance / the preparation**
Photochemicals
Fixing agent for X-ray films
Reserved for industrial and professional use.

· **Manufacturer/Supplier:**
ADEFO-CHEMIE GmbH
Justus-von-Liebig-Str. 24-26
D-63128 Dietzenbach
Tel.: +49 6074 84239-0
Fax: +49 6074 84239-63
E-Mail: service@adefo-chemie.de
www.adefo-chemie.de

· **Informing department:**
Tel.: +49 6074 84239-0
Fax: +49 6074 84239-63
Competent person according to 1907/2006/EC, Annex II:
E-Mail: kr@calbe-chemie.de

· **Emergency information:** Tel.: 0700-24112112 (CAL)

2 Hazards identification

· **Information pertaining to particular dangers for man and environment**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system**
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

3 Composition/information on ingredients

· **Chemical characterization**
· **Description:** Mixture of the substances listed below with harmless additions.

· **Dangerous components:**

CAS: 64-19-7 EINECS: 200-580-7	acetic acid, of a concentration of	C; R 10-35	2.0-5.0%
CAS: 7783-18-8 EINECS: 231-982-0	ammonium thiosulphate		25-50%
CAS: 7757-83-7 EINECS: 231-821-4	sodium sulphite		2.0-5.0%

· **Additional information**
Main component: water
For the wording of the listed risk phrases refer to section 16.

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4 First aid measures

· **General information** Instantly remove any clothing soiled by the product.

· **After inhalation** Supply fresh air.

· **After skin contact**
Instantly wash with water and soap and rinse thoroughly.
The product is not skin irritating.

· **After eye contact**
Rinse opened eye for several minutes under running water (> 15 min). Then consult doctor.

· **After swallowing**
Rinse out mouth and then drink plenty of water.
In case of persistent symptoms consult doctor.

· **Information for doctor**

· **The following symptoms may occur:** No known symptoms to date.

5 Fire fighting measures

· **Suitable extinguishing agents**
CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
Use fire fighting measures that suit the environment.

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

· **Special hazards caused by the material, its products of combustion or resulting gases:**
Can be released in case of fire
sulphur dioxide (SO2)
Nitrogen oxides (NOx)

· **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Put on breathing apparatus.

· **Additional information** The product is not flammable

6 Accidental release measures

· **Person-related safety precautions:** Not required.

· **Measures for environmental protection:**
Do not allow to enter drainage system, surface or ground water.

· **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.

· **Additional information:**
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

7 Handling and storage

· **Handling**
· **Information for safe handling:** No special measures required.

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· **Information about protection against explosions and fires:**
No special measures required.
The product is not flammable

· **Storage**
· **Requirements to be met by storerooms and containers:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Store in a cool place.
· **Recommended storage temperature:** 5-30°C
· **Storage class** LGK 12 (VCI-Concept)

8 Exposure controls and personal protection

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

· **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **Personal protective equipment**
· **General protective and hygienic measures**
The usual precautionary measures should be adhered to general rules for handling chemicals.

· **Breathing equipment:** Not required.

· **Protection of hands:**
Protective 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** Synthetic gloves
· **Penetration time of glove material**
Value for permeation: Level ≥ 6 (480 min)
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.
· **As protection from splashes 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:** Safety glasses

9 Physical and chemical properties:

· **General Information**

Form:	Fluid
Colour:	Colourless
Odour:	Not characteristic

· **Change in condition**
Melting point/Melting range: < 5°C

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Boiling point/Boiling range:	> 100°C
· **Flash point:**	Not applicable
· **Self-inflammability:**	Product is not selfigniting.
· **Danger of explosion:**	Product is not explosive.
· **Vapour pressure at 20°C:**	23 hPa
· **Density at 20°C**	1.31 g/cm³
· **Solubility in / Miscibility with Water:**	miscible
· **pH-value at 20°C:**	5
· **Solvent content:**	
Organic solvents:	4.1 %
Water:	43.7 %
· **Solids content:**	52.2 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.

· **Dangerous reactions**
Reacts with strong acids and alkali
Reacts with acids releasing sulphur dioxide
Reacts with alkalis releasing ammonia

· **Dangerous products of decomposition:**
Sulphur dioxide
Ammonia

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11 Toxicological information

· **Acute toxicity:**

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** Irritant effect.
· **Sensitization:** No sensitizing effect known.
· **Subacute to chronic toxicity:** No known symptoms to date.

· **Additional toxicological information:**
This statement was deduced from the properties of the single components.
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

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12 Ecological information:

· **Information about elimination (persistence and degradability):** Not determined

· **Behaviour in environmental systems:** Not determined

· **Mobility and bioaccumulation potential:** Not determined

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· **Ecotoxical effects:** Not determined

· **Acquatic toxicity:** Not determined

· **Behaviour in sewage processing plants:** Not determined

· **General notes:**
At present there are no ecotoxicological assessments.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
According to the criteria of the EU-classification and labelling "dangerous for environment"(1999/45/EG) the substance/ the product has to be classified as non-hazardous for the environment.
The product does not contain organically bounded halogens (AOX-free).

13 Disposal considerations

· **Product:**
· **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 04	fixer 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.
Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
EAK-No. 15 01 10
· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

14 Transport information

· **Land transport ADR/RID (cross-border)**
· **ADR/RID-GGVS/E Class:** -

· **Maritime transport IMDG:**
· **IMDG Class:** -
· **UN Number:** -

· **Air transport ICAO-TI and IATA-DGR:**
· **ICAO/IATA Class:** -
· **UN/ID Number:** -

· **Transport/Additional information:** Not dangerous according to the above specifications.

15 Regulatory information

· **Designation according to EC guidelines:**
The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).

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· **Special designation of certain preparations:**
Safety data sheet available for professional user on request.

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
II	4.1

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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.

· **Relevant R-phrases**
10 Flammable.
35 Causes severe burns.

· **Recommended restriction of use** No public product, only for commercial use

· **Sources**
applicable EEC directives:
- 1999/45//EC last change 2006/8/EC
- 67/548/EC last change 2004/73/EC (29. ATP)
Internal physical tests, MSDS of the ingredients

· *** Data compared to the previous version altered.**