

Material Safety Data Sheet According to 91/155 EEC

Reviewed on 11.02.2005

* 1 Identification of substance:

- **Product details:** Reagent for water analysis
- **Product name:** Al-1 TP Aluminum Set (Vario Aluminium ECR F20)
- **Catalog number:** 251 400 **Model:** Al-1 TP
- **Supplier:**
 WTW Wissenschaftlich-Technische Werkstätten GmbH
 Dr.-Karl-Slevogt-Straße 1
 D-82362 Weilheim Tel.: +49(0)881 183-0 Internet: <http://www.WTW.com>
 Fax: +49(0)881 183-420 Tel.: +49(0)881 183-100 E-Mail: Info@WTW.com
- **Emergency information:**
 Poison Center Berlin, Germany
 Tel.: +49(0)30 19240

* 2 Composition/Data on components:

- **Description:** Mixture of the substances listed below with harmless additions.

· **Dangerous components:**

CAS: 70-49-5	mercaptosuccinic acid	<input checked="" type="checkbox"/> Xn; R 22-36/37/38	5-10%
EINECS: 200-736-4			

- **Additional information** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- **Hazard designation:** void
- **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.

* 4 First aid measures

- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**
 Rinse with warm water.
 The product is not skin irritating.
- **After eye contact**
 Rinse opened eye for several minutes under running water.
 Call a doctor immediately.
- **After swallowing**
 Drink copious amounts of water, induce vomiting.
 In case of persistent symptoms consult doctor.
- **The following symptoms may occur:**
 After swallowing of large amounts:

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sickness

vomiting

· **Danger** Danger of disturbed cardiac rhythm.

* 5 Fire fighting measures

- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **Special hazards caused by the material, its products of combustion or resulting gases:**
Formation of toxic gases is possible during heating or in case of fire.
Hydrogen chloride (HCl)
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
Ambient fire may liberate hazardous vapours.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter drains.

* 6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Avoid causing dust.
- **Measures for environmental protection:** Do not allow product to reach sewage system or water bodies.
- **Measures for cleaning/collecting:**
Collect mechanically.
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Additional information:** No dangerous materials are released.

* 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:**
Protect from heat.
The product is not flammable
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store under dry conditions.
Protect from humidity and keep away from water.
Protect from the effects of light.
- **Storage class** Not required.

* 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.

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- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
 - **Protection of hands:** Preventive skin protection by use of skin-protecting agents is recommended.
 - **Material of gloves**
nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.11 mm
 - **Penetration time of glove material**
Value for the permeation: Level ≥ 6 (480 min)
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - **Eye protection:** Safety glasses
 - **Body protection:** Protective work clothing.
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* 9 Physical and chemical properties:

· Form:	Powder
· Colour:	Orange
· Odour:	Like rotten eggs (mercaptans)
· Melting point/Melting range:	Not determined
· Boiling point/Boiling range:	1413°C
· Flash point:	Not applicable
· Self-inflammability:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive.
· Density	Not determined
· Solubility in / Miscibility with Water:	Soluble
· pH-value (22 g/l) at 20°C:	2.8
· Solvent content:	
Organic solvents:	0.0 %
· Solids content:	100.0 %

* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
 - **Dangerous reactions** No dangerous reactions known
 - **Dangerous products of decomposition:** No dangerous decomposition products known
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* 11 Toxicological information

- **Acute toxicity:** Quantitative data on the toxicity of the preparation are not available.

LD/LC50 values that are relevant for classification:		
7447-40-7 potassium chloride		
Oral	LD50	2600 mg/kg (rat)
7783-20-2 ammonium sulphate		
Oral	LD50	2840 mg/kg (rat)
70-49-5 mercaptosuccinic acid		
Oral	LD50	800 mg/kg (rat)
	LD50 IVN	> 1000 mg/kg (rabbit)

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50-81-7 ascorbic acid

Oral	LD50	11900 mg/kg (rat)
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- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** No irritant effect.

- **Sensitization:** No sensitizing effect known.

- **Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version.

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.

*12 Ecological information:

- **Information about elimination (persistence and degradability):**

- **Other information:** Quantitative data on the ecological effect of this product are not available.

- **Behaviour in environmental systems:**

7783-20-2 ammonium sulphate

log P(o/w)	- 5.1 (.)
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70-49-5 mercaptosuccinic acid

log P(o/w)	-0.88 (.)
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50-81-7 ascorbic acid

log P(o/w)	-2.15 (.)
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- **Ecotoxicological effects:**

- **Aquatic toxicity:**

50-81-7 ascorbic acid

LC50	33000 (Merck) mg/l/48h (Leuciscus idus)
	1020 mg/l/96h (Onchorhynchus mykiss)

- **Remark:**

Toxic for fish:

sulphates > 7 g/l

NH₄⁺ > 0.3 mg/l

- **General notes:**

Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into soil.

*13 Disposal considerations

- **Product:**

- **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

16 05 06	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
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- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

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

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14 Transport information

· **ADR/GGVSE:**

· **IMDG/GGVSee:**
· **EMS Number:**

· **ICAO/IATA:**

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

*15 Regulatory information

· **Designation according to EC guidelines:**

Observe the normal safety regulations when handling chemicals

The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).

· **Special designation of certain preparations:**

Safety data sheet available for professional user on request.

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**

22 Harmful if swallowed.

36/37/38 Irritating to eyes, respiratory system and skin.

· **Department issuing data specification sheet:** Department TSS, Dr. Manfred Kaul

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

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