

Material Safety Data Sheet

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Date of card issue : 01.02.2004

Date of card update: 03.02.2006

1. Identification of the preparation.

	CAT NO.
ALAT 5*100	A2300
ALAT 5*50	A2301
ALAT BULK	A2300B

2. Composition / information on components.

Dangerous components:		
1-TP; 1-REAGENT		
Copper monosulfate pentahydrate	Contains: < 0,35%	
CAS number:	7758-98-7	
WE number:	231-847-6	
Index number:	029-004-00-0	Harmfulness: Xn; Phrases: R: 22-36/38-50/53; S (2-)22-60-61
sodium hydroxide	Contains: < 0,9%	
CAS number:	1310-73-2	
WE number:	215-185-5	
Index number	: 011-002-00-6	Harmfulness: C; Phrases: R 35; S (1/2) 26-37/39-45
2-STANDARD		
sodium azide	Contains: < 0,1%	
CAS number:	26628-22-8	
WE number:	247-852-1	
Index number: -	011-004-00-7	Harmfulness: T+; N; Phrases: R 28-32-50/53; S 28-45-6061
CAS number:	1310-73-2	
EC number:	215-185-5	
Index number:	011-002-00-6	Harmfulness: C; Phrases: R 35; S (1/2) 26-37/39-45

3. Hazards Identification.

Irritating
Irritating to eyes and skin

4. First-Aid Measures.

After exposure by respiratory passages: fresh air. Call in physician.
After skin contamination: wash off with plenty of water. Dab with polyethylene glycol 400. Take off the contaminated clothing.
After contamination of eyes: rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call in ophthalmologist.
After consumption: give the sufferer a large amount of water to drink.
Avoid vomiting. (risk of perforation!) If the sufferer feels unwell, consult a doctor.

5. Fire Fighting Measures:

Suitable extinguishing media:
Suitable for materials stored in immediate vicinity.
The preparation is not a flammable substance.

6. Accidental Release Measures:

Preventive measures related to the staff:
Avoid contamination with the preparation.
Cleaning /absorption procedures :
Collect small quantities with the use of an absorbing agent, rinse with large amount of water if necessary.

7. Handling and Storage:

Procedures:
In accordance with the norms generally accepted for chemicals in laboratories.
Storage:
Hermetically closed. In temperature from +2°C do +8 °C.

8. Exposure Controls/ Personal Protection:

Appropriate control parameter:
See Polish regulations.
sodium hydroxide
NDS – 0,5 mg/m³, NDCh – 1,0 mg/m³.
Personal control equipment:
Respiratory passages: required when vapours/aerosols are generated.
Eyes: required (protective glasses).
Hands: required - protective gloves:
In full contact: In splash contact:
Glove material: nitrile rubber Glove material: nitrile rubber
Layer thickness: 0,11 mm Layer thickness: 0,11 mm
Breakthrough time: > 480 Min. Breakthrough time: > 480 Min.
Industrial hygiene: you must not have meals, drink, or smoke tobacco while working with the preparation, except in places designed for that purpose. Wash your hands

after work with the substance carefully with soapy water. Apply skin-protective barrier cream.

9. Physical and Chemical Properties.

Form:	1-TP: 1-REAGENT clear solution	2- STANDARD: clear solution
Colour:	colourless	light yellow
Odour:	odourless	odourless
Vapour pressure:	no data available	no data available
Boiling temperature:	no data available	no data available
Melting temperature:	no data available	no data available
Ignition temperature:	incombustible	incombustible
Flammability:	incombustible	incombustible
Density:	1,011 g/cm ³ (20 °C)	1,025 g/cm ³ (20 °C)

10. Stability and Reactivity:

Conditions that should be avoided:

The preparation is stable in conditions provided by the manufacturer.

Substances that should be avoided:

Metals, light metals: Formed could be: hydrogen (risk of explosion!); acid, nitriles, alkaline earth metals in powder form, ammonium compounds, cyanides, magnesium, organic nitro compounds, organic combustible substances, phenols and oxidizable substances.

Dangerous decomposition products:

No information available.

Further information:

The product should be handled with the care usual when dealing with chemicals.

11. Toxicological Information:

No data for the preparation. The preparation toxicity evaluation is based on evaluation of the toxicity of particular components. Acute toxicity:

- LD50 (dermal, rat): >2000 mg/kg

- LD50 (oral, rat): 960 mg/kg

Further toxicological information:

After inhalation: Irritations of the mucous membranes, coughing and dyspnoea. Metal-fume fever after

inhalation of large quantities.

After skin contact: Irritations.

After eye contact: Irritations. Risk of corneal clouding.

After swallowing: gastric pain, vomiting, diarrhoea, drop in blood pressure, tachycardia, collapse, acidosis.

After a latency period: death.

Further data:

The product should be handled with the care usual when dealing with chemicals.

sodium hydroxide

Acute toxicity:

Quantitative data on the toxicity of this product are not available.

Specific symptoms in animal studies:

Eye irritation test (rabbit): burns.

Skin irritation test (rabbit): burns.

Subacute to chronic toxicity:

Mutagenicity (mammal cell test): micronucleus negative.

Bacterial mutagenicity: Escherichia coli; negative.

Bacterial mutagenicity: Ames test: negative.

No teratogenic effect in animal experiments.

Further toxicological information:

After inhalation: burns of mucous membranes.

After skin contact: burns

After eye contact: burns, risk of blindness!

After swallowing: burns in mouth, throat, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach.

Further data:

The product should be handled with the care usual when dealing with chemicals.

12. Ecological Information:

No data for the preparation. The evaluation was performed on the basis of the properties of its components.

Copper monosulfate pentahydrate:

Biologic degradation:

Methods for the determination of biodegradability are not applicable to inorganic substances.

Ecotoxic effects:

Fish toxicity: fish *LC50*: 0,1- 2,5 mg/l/96 h (anhydrous substance);

Daphnia toxicity: *Daphnia magna EC50*: 0,024 mg/l / 24 h (anhydrous substance);

Algal toxicity: *Sc. quadricauda EC50*: 0,1 mg/l/4 h (anhydrous substance);

Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Fungicidal effect.

Further ecologic data:

The following applies to copper compounds: biological effects: toxic for aquatic organisms; copper ions Toxic for fish, algae, protozoa, and bacteria at concentrations below 1 mg/l. Fish: *C. auratus* toxic 0,01

mg/l; mussels: 0,55 mg/l lethal in 12 h.; oysters: 0,1 mg/l toxic.

The following applies to sulfate in general: biological effects: toxic as from 7 g/l; bacteria: toxic as from 2,5 g/l. Do not allow to enter waters, waste water, or soil!

Biologic degradation:

Methods for the determination of biodegradability are not applicable to inorganic substances.

Behavior in environmental compartments:

Concentration in organisms is not to be expected.

Ecotoxic effects:

Biological effects: harmful effect on aquatic organisms. Toxic effect on fish and

plankton. Harmful effect due to pH shift. Forms corrosive mixtures with water even if diluted. Does not cause biological oxygen deficit. Neutralization possible in waste water treatment plants.

Fish toxicity:

Onchorhynchus mykiss LC50: 45,4 mg/l/96 h.(in hard water).

L. macrochirus LC50: 99 mg/l/48 h

Daphnia toxicity:

Daphnia magna EC50: 76 mg/l/24 h.

Further ecologic data:

Do not allow to enter waters, waste water, or soil!.

13. Disposal Considerations:

Product:

Chemical residues, in general, are included into special waste. Disposing of the latter is regulated by appropriate laws and ordinances. We recommend contacting the appropriate authorities, or waste disposal enterprises that will advise you on how to dispose of special waste.

Packing:

Remove in accordance with official regulations. Treat contaminated packages in the same way as the substance itself. If the regulations do not provide otherwise, non-contaminated packages can be treated like household waste or forward them to be utilized.

14. Transportation Information:

The product is not subject to transport regulations.

15. Regulatory Information:

Material Safety Data Sheet was prepared in accordance with:

The EC Directive Nr UE2001/58/WE, the EC Directive Nr 1999/45/EG, the EC Directive 67/548 EEC, EC

Directive 88/379/EEC or the EC Directive 91/155/EEC (Dangerous Product Regulations incl. EC Guidelines).

See Turkish regulations.

Marking:

Irritating

Contain sodium hydroxide and copper monosulfate pentahydrate

Xi – Irritating;

Risk phrases (R)

R 36/38 – Irritating to eyes and skin.

R 52-53 – Harmful to aquatic organism. May cause long-term adverse effects in the environment.

Safety phrases (S):

S 26-28-37/39-45 –In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Wear suitable gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16. Other Information.

R 36/38 – Irritating to eyes and skin.

R 52-53 – Harmful to aquatic organism. May cause long-term adverse effects in the environment.

The foregoing information is based on the present state of our knowledge. It characterizes the product with respect to the appropriate safety measures. They do not guarantee the properties of the product. We do not take responsibility for damage and losses that may result from inappropriate use of the preparation.

Reason of changes: General updating.

The foregoing safety chart prepared in electronic version is legally valid without sign manual.