

Material Safety Data Sheet

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1. Identification of the preparation.

	CAT NO.
ALAT 5*100	A2160
ALAT 5*50	A2161
ALAT 5*25	A2162
ALAT BULK	A2160B

2. Composition / information on components.

Dangerous components:		
1-CREATININE; 1-REAGENT		
sodium carbonate		Contains: < 1,5%
CAS number:	497-19-8	
EC number:	207-838-8	
Index number:	011-005-00-2	Harmfulness: Xi; Phrases: R 36 S (2-) 22-26
sodium hydroxide		Contains: < 2%
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
2-CREATININE 2-REAGENT		
picric acid		Contains: < 1,5 %
CAS number:	88-89-1	
EC number:	201-865-9	
Index number:	609-009-00-X	Harmfulness: E; T; N; Phrases: R 2-4-23/24/25; S (1/2)28-35-37-45
3-STANDARD		
hydrochloric acid		Contains: 1,190%
CAS number:	7647-01-0	
EC number:	231-595-7	

Index number:	017-002-01-32(37)	Harmfulness: C Phrases: R 34-37; S 26-36/37/39-45
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3. Hazards Identification.

1-CREATININE

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 large amount of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing.

After eye contact: rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call in ophtalmologist.

After swallowing: make victim drink plenty of water, avoid vomiting. (Risk of perforation!). Immediately call in physician. Do not attempt to neutralize.

5. Fire Fighting Measures:

Suitable extinguishing media:

In adaptation to materials stored in the immediate neighbourhood.

Special risks:

Non-combustible. Ambient fire may liberate hazardous vapours. Hydrogen may form upon contact with Metals (danger of explosion !).

Special protective equipment for fire fighting:

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Other information:

Prevent fire-fighting water from entering surface water or groundwater.

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 +15°C do + 25°C.

8. Exposure Controls/ Personal Protection:

Appropriate control parameter:

See Turkish regulations.

sodium hydroxide: NDS – 0,5 mg/m³, NDSC_h – 1,0 mg/m³.

picric acid: NDS – 30 mg/m³, NDSC_h – 45 mg/m³.

Personal protective equipment:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory passages: Apply in rooms with efficiently working ventilation, avoid inhaling product mists, use respiratory tract-protective agents

Eyes: avoid direct contact of the product with eyes use glasses.

Hands: avoid direct contact of the product with skin, immediately take off clothes soiled with the preparation and wash contaminated skin with soapy water, use personal protective, clothing and 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.

	1-CREATININE 1-REAGENT	2-CREATININE 2-REAGENT	3- STANDARD
Form:	clear solution	clear solution	clear solution
Colour:	colourless	yellow	colourless
Odour:	odourless	odourless	odourless
Vapour pressure:	no data available	no data available	no data available
Boiling temperature:	100 °C	100 °C	100 °C
Melting temperature:	no data available	no data available	no data available
Ignition temperature:	incombustible	incombustible	incombustible
Flammability:	incombustible	incombustible	incombustible
Density:	1,027 g/cm ³ (20 °C)	1,000 g/cm ³ (20°C)	1,000 g/cm ³ (20°C)
pH:	13-14 (25°C)	2,00 (25°C)	2,00 (25°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, acid, nitriles, , ammonium, compounds, cyanides, magnesium, organic nitro compounds, organic combustible substances, phenols and oxidizable substances.

Hazardous decomposition products:

No information available.

Further information:

A stabilized product.

11. Toxicological Information:

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

sodium hydroxide

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

1-CREATININE

Contains sodium hydroxide

Xi – Irritating;

Risk phrases (R):

R 36/38 – Irritating to eyes and skin.

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.

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.