Material Safety Data Sheet

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1. Identification of the preparation.

	CAT NO.
ALAT 5*100	**A2030**
ALAT 5*50	**A2031**
ALAT 5*25	**A2032**
ALAT 5*10	**A2033**
ALAT BULK	**A2031B**

2. Composition / information on components.

Dangerous components:			
Potassim thiocyanate		Contains: < 9%	
CAS number:	333-20-0		
EC number:	206-370-1;		
Index number:	615-004-00-3	Harmfulness: Xn; Phrases: R 28-32;; S (2-) 13	
sodium azide		Contains: < 0,1%	
CAS number:	26628-22-8		
EC number:	247-852-1;		
Index number:	011-004-00-7	Harmfulness: T+; N; Phrases: R 28-32-50/53; S 28-45-60-6	
MES -2-(N-Morpholino)ethanesulfonic acid		Contains: < 2%	
CAS number:	4432-31-9		
EC number:	224-632-3;		
Index number: -		Harmfulness: Xi; Phrases: R 36/37/38; S 26 / 36	
potassium hydroxide		Contains: < 0,2%	
CAS number:	1310-58-3		
EC number:	215-181-3		
Index number:	019-002-00-8	Harmfulness: C; Phrases: R 35; S (1/2) 26-37/39-45	

3. Hazards Identification.

Harmful
– Also harmful by inhalation, in contact with skin and if swallowed
– Contact with acids liberates very toxic gas.

4. First-Aid Measures.

After exposure by respiratory passages: fresh air.
After skin contamination: wash off with large amount of water. Take off the contaminated clothing.
After contamination of eyes: rinse with large amount of water.
After consumption: give the sufferer a large amount of water to drink.
If the sufferer feels unwell, consult a doctor.
ATTENTION:
An unconscious patient should be placed in lateral recumbent position, allowed to rest and protected from heat loss. Never evoke vomiting nor administer anything orally to an unconscious person, or to those who suffer from convulsion.
The symptoms of poisoning may be delayed.

5. Fire Fighting Measures:

Suitable extinguishing media:
water, powder, foam During fire thermal decomposition of the substances contained in the preparation may occur. As a result of that toxic smokes and gases may be formed, which contain in. a nitrogen, potassium, sulfur, sodium, carbon oxides, as well as cyanides. Notify the neighbourhood of fire. Remove from the endangered area all persons not taking part in the liquidation of fire. Notify the State Fire Brigade, the State Police, the immediate local authorities, and, if necessary, the Immediate Chemical Rescue Unit. The rescuers must be equipped with protective clothing and respiratory tract isolating equipment, irrespective of ambient air. Cool the endangered containers with a stream of water. The smothering water should be collected separately and not released into the sewerage system.

6. Accidental Release Measures:

Preventive measures related to the staff:
Avoid contamination with the preparation.
Notify the neighbourhood of the breakdown.
Do not inhale vapours/ aerosols.
Secure the flow of fresh air into closed rooms.
Cleaning /absorption procedures :
Carefully collect the fluids with the use of an absorbing substance, forward them to liquidation. Clean the contaminated ground. Do not let the substance penetrate into the sewage system Use liquid-binding substances (e.g. sand, wood flour, universal binding substances, diatomaceous earth), Utilize the used materials in accordance with appropriate regulations, agree upon the manner of utilization with the Environment Protection Department of the Provincial Office.

7. Handling and Storage:

Dealing with the substance

In accordance with the norms generally accepted for chemicals in laboratories. While working with the preparation, one should use appropriate means of personal protection (see pt. 8)Avoid contact of the preparation with skin and eyes, as well as inhaling its mists Secure efficient local ventilation You must not have meals, drink, or smoke tobacco while working with the preparation, except in places designed for that purpose

Storage:

Store the product in cool (recommended temperature: +2℃ do +8℃) and well-ventilated rooms, do not Expose to light Store in original, manufacturer's packages Store in closed containers Secure the containers from damage Do not store with food and fodder

Packages:

Plastic polyethylene HDPE bottles (ca. 30 ml and 75 ml) placed in boxes.

8. Exposure Controls/ Personal Protection:

Appropriate control parameter:

See Turkish regulations.

sodium azide

NDS – 0,1 mg/m^3, NDSCh – 0,3 mg/m^3.

Risk of skin absorption.

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.

Form:	clear *solution*
Colour:	colourless to light yellow
Odour:	odourless

Vapour pressure:	not applicable
Boiling temperature:	~ 100 °C
Melting temperature:	not applicable
Ignition temperature:	incombustible
Flammability:	incombustible
Density:	*1,061 g/cm^3 (20 °C)*
pH:	*6,0 (20-25 ℃)*

10. Stability and Reactivity:

Conditions that should be avoided:
Excessive heating.
Substances that should be avoided:
Acids, strong oxidants, metals: lead, copper, silver, gold, mercury, bronze and their chlorides, hydrazine, Bromide, carbon disulfide, barium carbonate, dimethyl sulfate, dibromomalonitril.
Dangerous decomposition products:
Sulfur, nitrogen, potassium, sodium oxides and cyanides.
Further information:
The product is stable in conditions provided by the manufacturer.

11. Toxicological Information:

No data for the preparation. The preparation toxicity evaluation is based on evaluation of the toxicity ofparticular components. Potassim thiocyanate
Acute toxicity:
LDLO – (oral, human) – 80 mg/kg
Remarks: Behavioral: Hallucinations, distorted perceptions.
Behavioral: Convulsions or effect on seizure threshold.
Behavioral: Muscle weakness.
LD50 (oral, rat) – 854 mg/kg
Remarks: Behavioral: Convulsions or effect on seizure threshold.
Lungs, Thorax, or Respiration: Dyspnea.
LD50 (oral, mouse) – 594 mg/kg
Remarks: Behavioral: Convulsions or effect on seizure threshold.
Lungs, Thorax, or Respiration: Dyspnea.
LD50 (intraperitoneej, mouse)-600 mg/kg LD50 (intravenous, mouse)- 8200 µg/kg
Remarks: Behavioral: Convulsions or effect on seizure threshold.
Lungs, Thorax, or Respiration: Dyspnea.
Signs and Symptoms of Exposure:
Exposure can cause: Nausea, headache, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Route of Exposure:
Skin Contact: Causes skin irritation.
Skin Absorption: Harmful if absorbed through skin.
Eye Contact: Causes eye irritation.
Inhalation: Material is irritating to mucous membranes and upper respiratory tract. Harmful inhaled.
Ingestion: Toxic if swallowed.
Target Organ Information:
Central nervous system. Cardiovascular system. Thyroid.

Chronic Exposure – Teratogen:
Species Dose Route of Application Exposure TimeDomestic Animals 1779 mg/kg Oral 1 – 20 PREG
Result: Specific Developmental Abnormalities: Endocrine system..
Sodium azide
Acute toxicity:
- LD50 (oral, rat) – 27 mg/kg b. w.
- LD50 (dermal, rabbit)- 20 mg/kg b. w.

Subacute to chronic toxicity:
No teratogenic effect in animal experiments.
Further toxicological information:
After inhalation of dusts/aerosols: Severe irritations of: mucous membranes, respiratory tract. Possible damages: pulmonary edema. Latency time until onset of action.
After skin contact: Slight irritations. Danger of skin absorption.
After eye contact: Slight irritations.
After swallowing: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.
Systemic effects: CNS disorders, cardiovascular failure, tachycardia, drop in blood pressure, coughing, dyspnoea, spasms, headache, dizziness, nausea, vomiting, collapse, unconsciousness.
Further data:
This substance should be handled with particular care.

12. Ecological Information:

No data for the preparation. The evaluation was performed on the basis of the properties of its components.
Potassium thiocyanate
Biologic degradation:
Biodegradable.
Ecotoxic effects:
Biological effects:
Fish toxicity: P. promelas *LC50: >100 mg/l/96 h (sodium salt).*
Daphnia toxicity: *Daphnia magna EC0: 11 mg/l /48 h (sodium salt).*
Algeal toxicity: *Selenastrum caricornutum ICo: >100 mg/l (sodium salt).*
Bacterial toxicity: *Pseudomonas putida EC10: 8000 mg/l (sodium salt).*
Further ecologic data:
No ecological problems are to be expected when the product is handled and used with due care and attention.
sodium azide
Ecotoxic effects:
Biological effects:
Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment. Forms toxic mixtures in water, dilution measures notwithstanding. Herbicidal effect. Nematocidal effect.
Fish toxicity: *Limnea macrochirus LC50: 0,7 mg/l/96 h*

Daphnia toxicity: *Daphnia pulex EC50: 4,2 mg/l /96 h*
Algeal toxicity: mixed culture of green algae IC50: *272 mg/l*
Bacterial toxicity: Photobacterium phosphoreum *EC50: 38,5 mg/l*
Pseudomonas fluorescens *UE50: 2,6 mg/l*
Further ecological data:
Do not allow for penetration into waters, sewage, or soil.

13. Disposal Considerations:

Product:
Chemical residues, in general, are included into special waste. Disposing of the latter is regulated byappropriate 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.
Harmful
Contains potassium thiocyanate and sodium azide
Xn - Harmful
Risk phrases (R):
R 20/21/22-32 - Harmful by inhalation, in contact with skin and if swallowed. Contact with acids liberates very toxic
Safety phrases (S):
S 24-36-46 - **Avoid contact with skin. Wear suitable protective clothing. If swallowed, seek medical advice immediately and show this container or label.**

16. Other Information.

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.
R32 - Contact with acids liberates very toxic.

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