

**KAPEKS****MATERIAL SAFETY DATA SHEET**

MSDS have been prepared in according to regulation of safety data sheets on hazardous substances and mixtures (13.12.2014-29204 official newspaper)

**Product:** Kapeks Nova 55**MSDS Number** : GBF-004  
**Date of Issue** : 11.05.2016  
**Rev. Number** : 01  
**Rev. Date** : 31.10.2018  
**Page Number** : 1/8**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identification** : Kapeks NOVA 55  
**Usage of Product** : Cap sensitive emulsion explosive used for blasting in tunnel and mining operations  
**Name of Producer** : Kapeks Uretim Patlayıcı Maddeler Tic. Ltd. Sti.  
Isci Blokları Mah. Mevlana Bulv. Ege Plaza Is Merkezi  
No:182B Kat:22 No:100 Cankaya/Ankara/TURKEY  
**Phone** : +90 312 473 74 88  
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**Emergency Phone Number** : +90 312 473 74 88 +90 376 518 26 53  
**National Poison Information Center** : 114  
**Emergency Health Services** : 112

**2. HAZARDS IDENTIFICATION****Classification of the Mixture**

Regulation on the Classification Packaging and Labelling of Dangerous Substances;

E;R2: Explosives, shock, friction, fire or explosion risk in contact with other sources of ignition

E;R3: Serious explosion risk in contact with shock, friction, flames and other ignition sources

Regulation on Classification, Labelling and Packaging of substances and mixtures;

Explosive 1.1- H201: Explosive; mass explosion damage

Eye Damage Cat.2 – H319: Causes serious eye irritation

**Labelling Elements****Warning Sign:** Danger**Hazard Statement;**

H201 : Explosive; mass explosion damage

H319 : Causes serious eye irritation

**Precautionary Statements Precaution;**

P210 : Keep away from heat / sparks / flames / hot surfaces.- Smoking isn't allowed

P230 : Keep wet

P240 : Put the container and outside packaging on the ground and connect

P250 : Do not expose to grinding / shock / friction

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P264 : After handling wash thoroughly your place that contact with the material  
P280 : Wear protective gloves / protective clothing / eye protection / face protection

**Precautionary Statements Intervention;**

P370+P380 : In case of fire evacuate the area  
P372 : In case of fire risk of explosion  
P373 : If fire reaches explosives DO NOT FIRE RESPONSE  
P305+P351+P338 : IN CASE OF EYE CONTACT: Rinse with water several minutes, remove contact lenses, continue rinsing  
P337+P313 : If eye irritation is permanent: medical advice / attention

**Precautionary Statements Storage;**

P401 : Store in appropriate storage conditions

**Precautionary Statements Disposal;**

P501 : Dispose the contents and container according to the procedure with the expert control

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance	%(w/w)	CAS No	EC No	CPL- Classification	CLP-Classification
Sodium Nitrate	> 9	7631-99-4	231-554-3	O;R8	Ox. Solid 3-H272 Eye Irr. 2- H319
Sodium Nitrite	< 1	7632-00-0	231-555-9	O;R8 T;R25 N;R50	Ox. Solid 3-H272 Acute Tox.3-H301 Aquatic Acute 1-H400 Eye Irr. 2- H319
Sodium Thiocyanate	< 1	540-72-7	208-754-4	R20/21/22 R32 R52/53	Acute Tox.4-H302-H312-H332 Eye Irr. 2- H319 Aquatic chronic 3-H412
Microcrystalline Wax	< 5	63231-60-7	264-038-1	Not classified as dangerous.	Not classified as dangerous. Eye Irr. 2-H319
Paraffine Wax	< 5	8002-74-2	232-315-6	Not classified as dangerous	Not classified as dangerous.
Mineral Oil	< 1	8042-47-5	232-455-8	---	Asp. Tox.1-H304
Acedic acid	< 1	64-19-7	200-580-7	C;R34	Flamm. Liquid 3; H226 Skin Irr. 1B; H314
Sodium acetate Anhydr.	< 1	127-09-2	204-823-8	Not classified as dangerous	Not classified as dangerous.

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Surfactant	> 1	---	---	R22 R36/37/38 S1/2,S45,S61,S36/37/39	Acute Tox. Inh. Cat.4-H332 Acute Tox. Skin Cat.4-H312 Acute Tox. Oral Cat.4-H302 Eye Irr. Cat.2-H319
Aluminum	1-5	7429-90-5	231-072-3	F;R15,R17	Pirofobik solid 1- H250 contact with water release flammable gas 2- H261
Amonium Nitrate	70-80	6484-52-2	229-347-8	O;R8	Ox. Solid 3-H272
				Xi;R36	Eye Irr. 2-H319

#### 4. FIRST AID MEASURES

- Ingestion** : The mouth is rinsed with water. Should drink plenty of water, even in case of vomiting should be given more water and medical attention must be done
- Eye contact** : Should be washed with cold water for 15 minutes and medical attention should be done
- Skin Contact** : Clothes should be removed and washed before wearing again. The area which is in contact with the product it should be washed with soap and water and incase of continuation of symptoms medical attention should done
- Inhalation** : N/A
- Symptoms** : None
- Clinical Advices** : If taken in excess through the mouth patient must be vomiting

#### 5. FIRE - FIGHTING MEASURES

**Extinguishing Media** : If product is on fire, all personel should remove from area immediately and send personel to a safe location some distance away from the fire. High risk of explosion if involved in fire. **DO NOT TACKLE FIRES INVOLVING EXPLOSIVES LOADS.** Large quantities of water may be used for cooling purposes if product is at risk from fire/heat.

- Extinguishing Media Not to be used** : All other media
- Exposure Hazards** : ---
- Resulting Gases** : Nitrous fumes, ammonia, water vapour, carbon dioxide, carbon monoxide, nitrogen
- Combustion Products** : Nitrogen, carbon dioxide, water vapour, ammonia, carbon monoxide
- Protective Equipment for firefighters** : As HAZCHEM/UN 0241 requirements

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**6. ACCIDENTAL RELEASE MEASURES****Personel Precautions;**

Removal of Ignition Sources : Yes  
Provide Adequate Ventilation : No  
Provide Respiratory Protection : Only in fire situation  
Control Dust : N/A  
Prevent Eye and Skin Contact : Yes

**Environmental Precautions;**

Keep away from drains : Yes  
Keep away from groundwater : Yes  
Keep away from soil : Yes  
Alert Neighbourhood : N/A

**Clean Up Methods;**

Use absorbent material : No, collect spills with proper collection instruments  
(It will be collected in heavy-duty plastic bags or in drums labeled according to the destruction)  
Use binder : No  
Dilute with water : No  
Never use with : Never use with copper, zinc and brass instruments  
Neutralise with : N/A  
Safe Handling : Use protective gloves  
Ventilation : N/A  
Dust : N/A  
Aerosol Effects : N/A  
Fire : See local emergency procedures or Section 5

**7. HANDLING AND STORAGE**

**Incompatible materials** : Do not store with detonators  
**Temperature** : - 15 °C to +35°C. Seek appropriate advice if operating outwith these temperatures  
**Humidity** : With proper packaging with regulation will not affect the normal climate conditions  
**Electrical Equipment** : It should be selected in appropriate electrical classification  
**Static electricity** : N/A  
**Quantity Limits** : As defined in statutory licence  
**Shelf Life** : It is recommended to consume within 1 year from production date

**8. EXPOSURE CONTROLS / PERSONEL PROTECTION**

**Respiratory Protection** : N/A

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**Page Number** : 5/8**Hand Protection** : If dispersed product present wear gloves  
**Eye Protection** : Avoid contact with eyes  
**Skin Protection** : Avoid contact with skin**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance and Physical form** : Putty-like consistency containing dispersed prills  
**Colour** : White  
**Odour** : None  
**pH of substance/solution** : 4.00  
**Boiling point/boiling range** : N/A  
**Melting point/melting range** : N/A  
**Flash Point** : N/A  
**Flammability(solid/gas)** : Non flammable  
**Ignition** : N/A  
**Explosive properties** : High, mass explosion damage  
**Oxidising properties** : Medium  
**Vapour pressure** : N/A  
**Relative Density** : Range 1,16-1,18 g/cm<sup>3</sup>  
**Solubility** : None (water resistant)  
**Mixibility** : Immiscible  
**Evaporation Rate** : N/A  
**Conductivity** : N/A  
**Viscosity** : Solid  
**Explosion Limits** : Velocity of detonation 4800-5900 m/s**10. STABILITY AND REACTIVITY****Conditions to Avoid;****Temperature** : Strage temperature exceed 35 °C should be avoided. This is a precaution to rnsure aproprate shelf life  
**Pressure** : N/A  
**Light** : N/A  
**Impact** : N/A  
**Friction** : N/A  
**Ignition** : N/A  
**Water** : No  
**Air** : No  
**Acids** : Yes  
**Bases/Alkalis** : Yes  
**Oxidisers** : Yes  
**Specific Substances** : N/A  
**Stabilisers required** : No

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Exotherm possible : Yes  
Physical appearance change : Hardening or crystallisation with storage  
Contact with water : No effect  
Degradation to unstable : Not under normal conditions of use

**11. TOXICOLOGICAL INFORMATION**

**Inhalation** : N/A  
**Ingestion** : Harmful if swallowed  
**Dermal** : Mild irritant  
**Eye Contact** : Yes  
**Sensitiser** : Possible to skin  
**Carcinogen** : No  
**Mutagenic** : No  
**Narcotic** : No  
**Teratogenic** : No  
**Toxic** : No

**12. ECOLOGICAL INFORMATION****Mobility;**

Known or predicted distribution to environmental compartments : No  
Surface Tension : High  
Absorption/desorption : Low  
Other relevant physical properties : No data

**Degradability;**

Biotic and abiotic degradation : Harmless  
Aerobic and anaerobic degradation : Yes  
Persistence : Moderate

**Accumulation;**

Bioaccumulation potential : Low  
Biomagnification : Low

**Short/Long Term Effects;****Ecotoxicity**

Aquatic organisms : Low  
Soil organisms : Low  
Plants and terrestrial animals : Low

**Other adverse effects**

Ozone depletion potential : Low  
Photochemical ozone creation : Low  
Global warming potential : Low  
Effects on waste water treatment plants : None

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An initial data search has established that there is little or no environmental or ecological effects data available on this product.

**13. DISPOSAL CONDITIONS**

**Waste Disposal** : The contaminated material is to be placed down a borehole to be utilized as part of the blast

**Waste disposal for others;**

Substance : Burning or detonation under controlled conditions  
Mixture : With combustion procedure made by expert person  
Contaminated Packaging : Controlled burning accordig to procedures

**Disposal Methods;**

Incineration : Open burning in small quantities within licenced area under supervision by expert person  
Recycling : No  
Flush : If accordance with waste disposal regulations

**14. TRANSPORT INFORMATIONS**

**UN Name** : Explosive, Type E  
**UN Number** : UN 0241  
**IMDG (sea) Code/Class** : 1.1 D  
**Packing Group** : -  
**RID/ADR (road/rail)** : 1.1 D  
**Packing Group** : -

In trasportation of explosive materials must be considered compliance with the requirement of Regulation No. 87/12028 or if needed international hazardous materials packaging agreements.

**15. REGULATORY INFORMATIONS**

Regulation on the compilation of safety data sheets of the Dangerous Substances and Preparations  
Regulation on Classification of Dangerous Substances and Preparations, Packaging and Labelling  
Regulation on Classification, Labelling and Packing of substances and mixtures  
Regulation on the Safety Data Sheets of Hazardous Substances and Mixtures  
Regulations on the Transport of Dangerous Materials by highway  
Regulation no 87/12028

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**16. OTHER INFORMATIONS****Risk Phrases;**

R8 : It may cause fire in contact with combustible material  
R15 : It will release flammable gases when contact with water  
R17 : Spontaneously flammable in air  
R20/21/22 : Harmful if inhalation, in contact with skin and swallowed  
R25 : Toxic if swallowed  
R32 : In contact with acids release toxic gas  
R34 : It causes burns  
R36 : Irritating to eyes  
R36/37/38 : Irritates eyes, respiratory system and skin  
R50 : It is very toxic to aquatic organisms  
R52/53 : Harmful to aquatic organisms, It may cause long-term adverse effects in the aquatic environment

**Hazardous Phrases;**

H226 : Flammable liquid and vapor  
H261 : Diffuse flammable gases upon contact with water  
H272 : It can strengthen the fire, oxidizing  
H301 : Toxic if swallowed  
H302 : Harmful if swallowed  
H304 : If respiratory tract influenced and swallowed fatal  
H312 : Harmful in contact with skin  
H314 : Cause serious skin burns and eye damage  
H319 : Cause serious eye irritation  
H332 : Harmful by inhalation  
H400 : It is very toxic in aquatic environments  
H412 : In the aquatic environment, long persistent, harmful effects

**Key Information Sources;**

This material safety data sheet is prepared based on informations received from KAPEKS ÜRETİM LTD. ŞTİ.

Revision:

First Issue. This material safety data sheet is prepared regarding to the 13.12.2014 dated and 29204 number of Regulation on Safety Data Sheets of Hazardous Substances and Mixtures.

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