

**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 ANFO-S**MSDS Number** : GBF-014  
**Date of Issue** : 09.06.2016  
**Rev. Number** : 01  
**Rev. Date** : 31.10.2018  
**Page Number** : 1/7**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identification** : Kapeks ANFO-S  
**Usage of Product** : Used for underground mining operation head up drilled holes as booster sensitive explosive  
**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  
**Fax** : +90 312 473 61 51  
**E-mail** : kapeks@kapeks.com.tr  
**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  
Carcinogenic Cat.2 – H351: Suspected to cause cancer

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

H201 : Explosive; mass explosion damage  
H319 : Causes serious eye irritation  
H351 : Suspected to cause cancer

**Precautionary Statements Precaution;**

P201 : Read special instructions before use  
P202 : Do not handled without reading and understanding all precautionary statements  
P210 : Keep away from heat / sparks / flames / hot surfaces.- Smoking isn't allowed



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 ANFO-S

**MSDS Number** : GBF-014  
**Date of Issue** : 09.06.2016  
**Rev. Number** : 01  
**Rev. Date** : 31.10.2018  
**Page Number** : 2/7

- P230 : Keep wet
- P240 : Put the container and outside packaging on the ground and connect
- P250 : Do not expose to grinding / shock / friction
- P264 : After handling wash thoroughly your place that contact with the material
- P280 : Wear protective gloves / protective clothing / eye protection / face protection
- P281 : Use personal protective equipment

**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
- P308+P313 : The exposure and interact: medical advice / attention
- P337+P313 : If eye irritation is permanent: medical advice / attention

**Precautionary Statements Storage;**

- P401 : Store in appropriate storage conditions
- P405 : Store under lock and key

**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
Amonium Nitrate	< 90	6484-52-2	229-347-8	O;R8 Xi;R36	Ox. Solid 3-H272 Eye Irr. 2-H319
Fuel Oil	< 4,5	68334-30-5	269-822-7	Car. Cat.3; R40	Canc. Cat. 2-H351
Mineral Oil	< 1,2	8042-47-5	232-455-8	-	Asp. Tox.1-H304
Surfactant	< 0,5	-	-	Xn;R22 Xi;R36/R37/38	Acute Tox. Inh. Cat.4-H332 Acute Tox. Skin Cat.4-H312 Acute Tox. Oral Cat.4-H302 Eye Irr. Cat.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



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 ANFO-S

**MSDS Number** : GBF-014  
**Date of Issue** : 09.06.2016  
**Rev. Number** : 01  
**Rev. Date** : 31.10.2018  
**Page Number** : 3/7

**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** : Treatment should be done as exposure to nitrate. High exposures may cause meta-hemoglobin, influence of muscle relaxants it may cause hypertension

## 5. FIRE - FIGHTING MEASURES

**Fire Extinguishing Agent** : Immediately apply plant emergency evacuation plans. All personnel should be evacuated to a predetermined safe area at least 800 meters.

**Fire Hazard** : Fire may cause explosion on the area. Burning material may remove toxic vapors.

**Explosion Hazards** : There is a risk of explosion by shock, friction, fire or other sources of ignition.

**Hazardous Combustion Products** : Nitrogen Oxides (NO<sub>x</sub>), carbon monoxide (CO), ammonia, carbon dioxide (CO<sub>2</sub>), nitrogen (N<sub>2</sub>).

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions** : Avoid contact with eyes, skin and clothing. Do not smoke. Eliminate any ignition sources of any kind.

**Protective Equipment** : Completely closed protective eyewear appropriate edges, appropriate nitrile gloves, work clothes, work shoes use.

**Environmental precautions** : Try to stop the leak without being exposed to any dangers. Avoid contaminating sewers and drinking water. Inform the authorities in case of mix sewer or underground water.

**Emergency Procedure** : Remove from media sources of ignition.

**Cleaning Method** : Keep away from all ignition sources. If there is no contamination of the product, it should attempt to retrieve a clean container. Remaining material should be mixed with sand and used in blasting operations or burn with expert.

**Related Sections** : Section 8 and 13 for additional information.

## 7. HANDLING AND STORAGE

**Precautions for Safe Use** : Appropriate nitrile gloves should be used. Smoking and hot work (welding, cutting, etc ...) in the application area should be prohibited. Do not mix with any chemicals.

**Warnings to protect against fire and explosion** : Prevent uncontrolled contact with the material are incompatible with each other. Avoid contact with flames, shock, friction and other

**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 ANFO-S**MSDS Number** : GBF-014  
**Date of Issue** : 09.06.2016  
**Rev. Number** : 01  
**Rev. Date** : 31.10.2018  
**Page Number** : 4/7

ignition sources. Keep fire fighting equipment ready for.

**Shelf Life**

: The shelf life of this product is 1 year.

**Storage;**

**Looking for storage areas and Packaging Specifications:** It should be stored according to regulations. Storage areas should be dry and be sure that there is natural ventilation. Smoke, fire, hot work (welding, cutting, drilling ...) should be banned. Store the mixture in the original pack. Magazine must be lockable. Unauthorized persons should not be enter.

**Common Storage Storage Related Alerts**

: Follow the general rules of storage

chemicals. Storage material according to hazardous materials storage matrix.

**8. EXPOSURE CONTROLS / PERSONEL PROTECTION****Personal Protection Equipment;****Respiratory Protection**

: Do not breathe vapor.

**Hand Protection**

: Chemical resistant gloves (EN 374).

**Eye Protection**

166).

: Eye protection glasses with side shields should be used (EN

**Safety and Hygiene Precaution**

: Use according to industrial hygiene and safety precaution.

Do not inhale. Keep away from food, drink and animal feed. Do not eat, drink or smoke.

Immediately remove contaminated clothes. Hands and face should be washed after the break and before the end of the shift.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance and Physical form**

: Prill shaped emulsion gel mixture

**Colour**

: Light red

**Odour**

: Smell of diesel

**pH**

: N/A

**Melting Point**

: N/A

**Boiling Point**

: N/A

**Freezing Point**

: N/A



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 ANFO-S

**MSDS Number** : GBF-014  
**Date of Issue** : 09.06.2016  
**Rev. Number** : 01  
**Rev. Date** : 31.10.2018  
**Page Number** : 5/7

**Density** : 0.78 to 0.90 g / cm<sup>3</sup>  
**Viscosity @ 40 °C** : N/A  
**Resolution** : Soluble  
**Decomposition Temperature** : Ammonium Nitrate: 210 ° C (410 ° F)  
**Vapor Pressure** : N/A  
**Oxidation Features** : Decomposition is a powerful oxidant  
**Explosion Feature** : Explosives, mass explosion damage  
**Explosion Data Explosion speed** : 5680 m/s  
**Static Explosion Data** : Not Sensitive Electrical Sensitivity  
**Explosion Data Impact** : Not Sensitive Sensitivity

## 10. STABILITY AND REACTIVITY

**Stability** : Stable under normal temperatures and pressures.  
**Reactivity** : Stable at normal conditions. Risk of explosion contact with fire or high-energy shock. Do not mix with chemicals.  
**Conditions to Avoid** : Keep away from sources of heat, flames and shock.  
**Incompatible Chemicals** : Corrosive (strong acids and strong bases or alkeran), strong oxidizing agents, reducing agents.  
**Hazardous Combustion Products** : Nitrogen Oxides (NO<sub>x</sub>), carbon monoxide (CO), ammonia, carbon dioxide (CO<sub>2</sub>), nitrogen (N<sub>2</sub>).

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity** : Not classified  
**Irritation:** Not irritating to skin. Eye contact can cause severe irritation  
**Fatal or Skin Sensitisation** : Not classified  
**Carcinogenicity:** There is doubt on causing cancer. There is no conclusive evidence.  
**Specific Target Organ Toxic** : Not classified  
**Reproductive Toxicity** : Not classified  
**Aspiration Loss** : Not classified  
**Additional information on toxicology;**  
**Fuel Oil (68334-30-5)**  
LD50 oral (Mouse) : > 5000 mg / l  
Leather LD50 (Rabbit) : > 2000 mg / l  
Inhalation LC50 (mouse) : 4.6 mg / l 4h  
**Ammonium Nitrate (6484-52-2)**  
Oral LD50 (mouse) : 4500 mg / kg  
Oral LD50 (mouse) : 2800 mg / kg  
Inhalation LC50 (4 hr.) (Mouse) : > 88.8 mg / l  
**Mineral Oil (8042-47-5)**  
LD50 oral (Mouse) : > 5000 mg / kg  
LD50 Skin (rabbit) : > 2000 mg / kg

**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 ANFO-S

<b>MSDS Number</b>	: GBF-014
<b>Date of Issue</b>	: 09.06.2016
<b>Rev. Number</b>	: 01
<b>Rev. Date</b>	: 31.10.2018
<b>Page Number</b>	: 6/7

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity** : Not regarded as dangerous for the environment  
**Mobility** : Do not mix the product with water. Inform authorities in case of mix sewer or underground water  
**Bioaccumulation potential** : There is no data about biological accumulation  
**Additional Info About Environment Ecology;**  
**Fuel Oil (68334-30-5)**  
LC50 (96h) fish : 54 mg/l (Joordanell Florida)  
EC50 (48h) Daphnia : 3.4 mg/l (Palaemonetes Pugio)  
IC50 (72h) Algae : 20 mg/l (Fucus Endatatus)  
**Ammonium Nitrate (6484-52-2)**  
LC50 (48h) Fish : 1.15 - 1.72 mg NH3/L (Cyprinus Carpio)  
Aquatic Invertebrates EC50 : 555 mg/L (Daphnia magna)  
Algae EC50 : 83 mg/l (Scenedesmus quadricauda)  
**Mineral Oil (8042-47-5)**  
LL50 Fish (96h) : > 2000 mg/kg (Lepomis macrochirus Rafiresqua)  
Fish LC50 (96h) : > 10 g/l (Lepomis macrochirus)

**13. DISPOSAL CONDITIONS**

**General Disposal Information** : Waste must be disposed in accordance with local regulations.  
**Safe Disposal** : Explosive waste must be disposed in blasting holes on mines or it must be disposed by burning in the explosives test site.

**14. TRANSPORT INFORMATIONS**

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

In transportation 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

**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 ANFO-S

<b>MSDS Number</b>	: GBF-014
<b>Date of Issue</b>	: 09.06.2016
<b>Rev. Number</b>	: 01
<b>Rev. Date</b>	: 31.10.2018
<b>Page Number</b>	: 7/7

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

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

R8 : Contact with combustible material may cause fire  
R11 : Highly flammable  
R22 : Harmful if swallowed  
R36 : Irritating to eyes  
R36/37/38 : Irritating to eyes, respiratory system and skin irritant  
R40 : Limited evidence of a carcinogenic effect

**Expressions harmfulness;**

H228 : Flammable solid  
H272 : Can strengthen fire, oxidizing  
H302 : Harmful if swallowed  
H304 : Fatal if penetrate the respiratory tract and swallowed  
H312 : Harmful in contact with skin  
H319 : Causes serious eye irritation  
H332 : Harmful if swallowed  
H351 : There is doubt lead to cancer

**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.

Prepared by:

Name Surname: Aybala Bektaş

Contact Informations: [aybala@kapeks.com.tr](mailto:aybala@kapeks.com.tr)

Certificate No: 01.166.01

Certificate validity date: 23.10.2021