

**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 Sismik**MSDS Number** : GBF-017
Date of Issue : 04.01.2017
Rev. Number : 01
Rev. Date : 31.10.2018
Page Number : 1/8**1. PRODUCT AND COMPANY IDENTIFICATION**

Product Identification : Kapeks Sismik
Usage of Product : Explosive material used in oil exploration, natural gas exploration, thermal water source and ground survey studies.
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
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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

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
P264 : After handling wash thoroughly your place that contact with the material

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P280 : Wear protective gloves / protective clothing / eye protection / face protection

Precautionary Statements Intervention;

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
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

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 Perchlorate	<10	7791-07-3	616-573-0	O;R9 Xn;R22	Ox. Solid 3-H272 Eye Irr. 2- H319
Mineral Oil	< 1	8042-47-5	232-455-8	---	Asp. Tox.1-H304
Surfactant	< 5	---	---	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
Amonium Nitrate	< 80	6484-52-2	229-347-8	O;R8 Xi;R36	Ox. Solid 3-H272 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

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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.
- Fire Danger** : It may explode in a fire environment. Burning material can produce toxic gas.
- Explosion Hazard** : There is a risk of bursting with shock, friction, flame and other sources of ignition.
- Combustion Products** : Nitrogen, carbon dioxide, water vapour, ammonia, carbon monoxide

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

- Use / Handling;**
- Precautions for Safe Use** : This product which has been put into cartridges does not cause chemical exposure. Smoking, hot treatment (welding, cutting ...) in the application areas 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 ignition sources. Keep fire fighting equipment ready for.
- Shelf Life** : The shelf life of this product is 1 year.
- Additional information** : This product is explosive and should be used only by trained and licensed experts.

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Page Number : 4/8**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 entered.

Common Storage Storage Related Alerts : Follow the general rules of storage chemicals. Storage material according to hazardous materials storage matrix.



Chemicals that are incompatible with the product : Corrosive (strong acids and strong bases or alkalis), strong oxidizing agents, reducing agents, flammable materials.

8. EXPOSURE CONTROLS / PERSONEL PROTECTION**Limits of Professional Injustice:**

Raw Material	CAS No	ACGIH TWA	OSHA TWA
Emulsifier	Mixture	5 mg/m ³ Oil Burner	5 mg/m ³ Oil Burner
Mineral Oil	8042-47-5	5 mg/m ³ Oil Burner	5 mg/m ³ Oil Burner
Ammonium Nitrate	6484-52-2	10mg/m ³ Powder	5mg/m ³
Sodium Perchlorate	7791-07-3	10 mg/m ³ Inhalation	15 mg/m ³ Powder

Personal Protection Equipment;**Respiratory Protection**

: This product in a cartridge does not cause chemical exposure.

Hand Protection

: Chemical resistant gloves (EN 374).

Eye Protection

: Eye protection glasses with side shields should be used (EN 166).

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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 : Waxy emulsion structure
Color : White
Smell : N/A
PH : N/A
Melting Point : N/A
Boiling Point : N/A
Freezing Point : N/A
Density : 1.18-1.22 g / cm³
Viscosity @ 40 ° C : Solid
Solubility : Insoluble in water
Degradation Temperature : Ammonium Nitrate: 210 ° C (410 ° F)
Steam Pressure : N/A
Oxidizing Properties : Strong oxidizing agent when decomposed
Explosive Properties : Explosive; Massive explosion damage
Explosion Data Explosion Rate : 6100-6200 m / sec (50 mm Cartridge in open field)
Explosion Data Static : Not sensitive
Electrical Sensitivity
Explosion data Stability : Not sensitive
Sensitivity

10. STABILITY AND REACTIVITY

Stability : Stable at room temperature and pressure
Reaction : It may explode when contact with fire, do not mix with chemicals
Conditions to Avoid : Keep away from heat, flame, heat sources and shock
Incompatible Chemicals : Corrosive (strong acid and strong bases or alkalis), strong oxidizing agents, reducing agents
Hazardous Combustion Products : Nitrogen oxides (NO_x), Carbon monoxide (CO), Ammonia, Carbon dioxide (CO₂), Nitrogen (N₂)

11. TOXICOLOGICAL INFORMATION

Acute toxicity : N/A
Irritation : Not irritating to the skin. Eye contact causes irritation
Sonum or Skin Sensitization : N/A

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Reproductive Cell Mutagenicity : N/A
Carcinogenicity : There is a suspicion of causing cancer, there is no definitive evidence
Specific Target Organ Toxic : N/A
Reproductive toxicity : N/A
Aspiration Hazard : N/A

Further information about toxicology:**Sodium Perchlorate (7791-07-3)**

LD50 Mouth (mouse) : 2100 mg / kg

Ammonium Nitrate (6484-52-2)

LD50 Mouth (mouse) : 4500 mg / kg

LD50 Mouth (mouse) : 2800 mg / kg

LC50 Inhalation (4 h.) (mouse) : > 88.8 mg / l

Mineral Oil (8042-47-5)

LD50 Mouth (mouse) : > 5000 mg / kg

LD50 Skin (rabbit) : > 2000 mg / kg

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 (48h) (flea) : 490 mg / l Sodium Perchlorate Water

LC50 (7 days) Plant : 614 mg / kg Soil

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 Rafiresqu A)

Fish LC50 (96h) : > 10 g/l (Lepomis macrochirus)

13. DISPOSAL CONDITIONS

General Disposal Information : Waste must be disposed in accordance with local regulations.

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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

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 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
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 : It may cause fire in contact with combustible material
R9 : It may explode mixed with flammable materials
R22 : Harmful if swallowed
R36 : Irritating to eyes
R36/37/38 : Irritates eyes, respiratory system and skin

Hazardous Phrases;

H228 : Flammable solids
H272 : It can strengthen the fire, oxidizing
H302 : Harmful if swallowed
H304 : If respiratory tract influenced and swallowed fatal
H312 : Harmful in contact with skin
H319 : Cause serious eye irritation
H332 : Harmful by inhalation



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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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