



**SAFETY DATA SHEET**  
**KEMIX, KEMIX-A and KEMIX-**  
**PIPECHARGES**

Päiväys: 1.10.2005  
 uoksentellinen päiväys: 16.7.2004

## 1. Identification of the substance/ preparation and of the company / undertaking

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**Trade name:** KEMIX, KEMIX-A, KEMIX-pipecharge and KEMIX-A-pipecharge

**Use of the preparation:** Explosive for civil use.

**Manufacturer:** OY FORCIT AB  
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 41330 VIHTAVUORI  
 FINLAND  
 Tel. +358-14-377 9211, Fax +358-14-377 1093  
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**Emergency telephone:** +358-14-377 9211, +358-14-377 9744 tai +358-19-22001

## 2. Hazards identification

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**Classification of mixture:** E; R2

**Hazards:** Risk of explosion by shock, friction, fire or other sources of ignition. Especially strong heating in a closed space causes an explosion. Can cause skin irritation in repeated contact.

## 3. Composition and information on ingredients

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**Definition:** Water-in-oil emulsion explosive

**Hazardous ingredients:** Ammonium nitrate

Name of ingredient:	Content :	CAS-#:	Code letters; R-phrases:
Ammonium nitrate	70-85 %	6484-52-2	O; R5-9

#### 4. First aid measures

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<b>Inhalation:</b>	Medical help necessary in case of combustion gases or thermal decomposition products have reached the respiratory passages. Bring victim to fresh air as quickly as possible, and contact a doctor. If the person is unconscious hold and transport in side position. If breathing stops apply artificial respiration. Symptoms do not necessarily appear immediately in persons who have inhaled combustion gases. Patients should be kept under medical observation for at least 48h.
<b>Skin:</b>	Wash off with water and soap.
<b>Eyes:</b>	Rinse with plenty of water, and consult a doctor.
<b>Ingestion:</b>	Drink immediately plenty of water, and consult a doctor.

#### 5. Fire fighting measures

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<b>General:</b>	Fight adjacent fire with all available means to prevent fire from reaching the product.  If fire is about to reach the product or the product is burning: Do not try to extinguish, risk of explosion. Immediately evacuate danger zone and warn neighborhood announcing risk of explosion.
<b>Special exposure hazards in a fire:</b>	In case of fire or heat toxic/harmful gases and pyrolysis products may be formed of the substance, e.g. nitrogen oxides (nitrous gases), Carbon monoxide and Ammonia. Explosion hazard. Danger of toxic lung oedema formation.

#### 6. Accidental release measures

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<b>Personal precautions:</b>	Avoid skin contact with the uncartridged preparation.
<b>Environmental precautions:</b>	Prevent substance from soaking into soil, waters and drains.
<b>Methods for cleaning up:</b>	Collect scattered cartridges by hand, spilled explosive mass with suitable non-sparking tools. Fill into marked sealable containers; dispose of as required by the authorities.



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## 7. Handling and storage

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<b>Handling:</b>	Keep away from heat and ignition sources. Do not smoke. Avoid mechanical stress and use non-sparking tools.
<b>Storage:</b>	Keep articles dry, cool and locked up.
<b>Special measures:</b>	National regulations must be followed with handling and storage.

## 8. Exposure controls / personal protection

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<b>Limit values for occupational safety:</b>	None
<b>Protection from exposure:</b>	The use of gloves and protective goggles is not necessary if substance is cartridged or packed. Always wash hands before breaks and at the end of work.

## 9. Physical and chemical properties

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<b>Physical state:</b>	Water-in-oil emulsion, vaselin-like mass in cartridges of plastic film or in plastic tubes
<b>Colour:</b>	White – yellowish or grey (Kemix-A)
<b>Odor:</b>	Odorless
<b>Melting point:</b>	-
<b>Thermal decomposition:</b>	> 100 °C (water contained in the nitrate solution vaporizes)
<b>Flash point:</b>	> 200 °C (flash point of the oil contained in the product)
<b>Risk of explosion:</b>	Strong shock, friction or heating, especially >200 °C, in a non-open space.
<b>Relative density:</b>	1,2 g/cm <sup>3</sup>
<b>Solubility:</b>	Water-solubility: almost insoluble; Fat-solubility: Oil-phase is soluble, water-phase is insoluble

## 10. Stability and reactivity

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<b>Conditions to avoid:</b>	Risk of explosion by shock, friction, fire or other sources of ignition.
<b>Materials to avoid:</b>	Strong bases (formation of ammonia), do not let foreign materials get mixed in the product.
<b>Hazardous decomposition products:</b>	In a fire or if heated above 200 °C, carbon monoxide, nitrogen oxides (nitrous gases), ammonia.



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## 11. Toxicological information

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**Empirical data on effects on humans:** Ammonium nitrate can cause skin irritation in repeated contact.

## 12. Ecological information

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**Ecotoxicity:** According to present knowledge non-toxic.  
**Mobility:** Water-soluble nitrates may drift to groundwater and reduce their quality.  
**Degradability:** Ammonium nitrate decomposes completely in nature.  
**Bioaccumulation:** Does not accumulate.

## 13. Disposal considerations

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**Disposal:** Waste and explosive tainted containers must be disposed of only in accordance with national regulations. Uncleaned empty containers are to be handled in the same way as the ones containing the products.

## 14. Transport information

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**UN - number:** 0241  
**Packaging group:** None  
**Packaging code:** P116  
**ADR/RID - class:** 1  
**Classification code:** 1.1D  
**Proper shipping name:** Explosive, blasting, type E (+ trade name, see paragraph 1)  
**IMDG - class:** 1.1D  
**EMS - number:** F-B, S-Y  
**ICAO/IATA - class:** Air transport prohibited



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## 15. Regulatory information

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<b>Labeling:</b>	The package is labeled as required by the Finnish Ministry of Communications.
<b>Other regulations:</b>	Products should be handled only by authorized persons and according to the specific national regulations for handling explosives.

## 16. Other information

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<b>R-phrases:</b>	R2: Risk of explosion by shock, friction, fire or other sources of ignition. R5: Heating may cause an explosion. R8: Contact with combustible material may cause fire. R9: Explosive when mixed with combustible material.
<b>Information on usage:</b>	If the product is used for purposes other than specified in the product information sheet, its suitability must be checked from the technical customer support of OY Forcit AB.
<b>Further information:</b>	Technical product information sheet is available from OY Forcit AB. (other additional information <a href="http://www.forcit.fi">www.forcit.fi</a> ) The information contained is based on the present state of our knowledge. It does not represent any guarantee with regard to product properties or their suitability for particular uses. Because the use of this information and instructions or the conditions of use of the product are not at our control, it is the users duty to specify the circumstances for the safe use of the product.