



## SAFETY DATA SHEET

# Kemix, Kemix A

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

### SECTION 1: Identification of the substance / mixture and of the company / undertaking

Date issued 27.05.2015

Revision date 22.08.2018

#### 1.1. Product identifier

Product name Kemix, Kemix A

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance / preparation Explosive for civil use

The chemical can be used by the general public No

#### 1.3. Details of the supplier of the safety data sheet

##### Manufacturer

Company name OY FORCIT AB

Postal address P.O.Box 19

Postcode 10901

City Hanko

Country Finland

Telephone number +358 (0)207 440 400

Email [forcit@forcit.fi](mailto:forcit@forcit.fi)

#### 1.4. Emergency telephone number

Emergency telephone Telephone number: countrywise telephone number  
Description: National poison information center / National helpdesk

### SECTION 2: Hazards identification

#### 2.1. Classification of substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS] Expl. 1.1; H201  
Eye Irrit. 2; H319

## 2.2. Label elements

### Hazard pictograms (CLP)



Signal word	Danger
Hazard statements	H201 Explosive; mass explosion hazard. H319 Causes serious eye irritation.
Precautionary statements	P210 Keep away from heat / sparks / open flames / hot surfaces. – No smoking. P250 Do not subject to grinding/shock/friction. P280 Wear protective gloves / protective clothing / eye protection / face protection. P370+P380 In case of fire: Evacuate area. P372 Explosion risk in case of fire. P373 DO NOT fight fire when fire reaches explosives.
Other label information (CLP)	Explosives are labeled and packaged in accordance with the requirements for explosives only.

## 2.3. Other hazards

Other hazards No data recorded.

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

Substance	Identification	Classification	Contents
Ammonium Nitrate	CAS No.: 6484-52-2 EC No.: 229-347-8 REACH Reg. No.: 01-2119490981-27-0004	Ox. Sol. 3; H272 Eye Irrit. 2; H319	70 - 85 %
Aluminium powder (stabilised)	CAS No.: 7429-90-5 EC No.: 231-072-3 REACH Reg. No.: 01-2119529243-45-0044		~ 5 %
White mineral oil (petroleum)	REACH Reg. No.: 01-2119487078-27-0013		5 - 6 %
Remarks, substance	Kemix A contains aluminium powder.		
Substance comments	The full text for all hazard statements is displayed in section 16.		

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice/attention.

Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact	Promptly wash eyes with plenty of water while lifting the eye lids. Contact physician if discomfort continues.
Ingestion	Immediately rinse mouth and drink plenty of water (200-300 ml). Call a POISON CENTER or doctor/physician.

#### 4.2. Most important symptoms and effects, both acute and delayed

Information for health personnel	Symptoms do not necessarily appear immediately. Patients should therefore be kept under medical observation for at least 48 hours.
General symptoms and effects	Not determined.
Acute symptoms and effects	Not determined.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Medical treatment	Not determined.
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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media DO NOT fight fire when fire reaches explosives. Explosion risk in case of fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards When heated and in case of fire, toxic vapours/gases may be formed. May explode when heated or when exposed to flames or sparks.

#### 5.3. Advice for firefighters

Fire fighting procedures Fight adjacent fire with all available means to prevent fire from reaching the product. DO NOT fight fire when fire reaches explosives. Leave danger zone immediately.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures Avoid contact with eyes and prolonged skin contact. For personal protection, see section 8.

#### 6.2. Environmental precautions

Environmental precautionary measures Do not discharge into drains, water courses or onto the ground.

#### 6.3. Methods and material for containment and cleaning up

Cleaning method Collect spilled explosive mass with suitable non-sparking tools (made of wood or aluminum). Place into marked, sealable containers and dispose of as required by the authorities.

## 6.4. Reference to other sections

Other instructions	<p>Firefighting, see Section 5.</p> <p>Personal protective equipment, see Section 8.2.</p> <p>Disposal of waste containing product residues, see Section 13.1.</p>
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Handling	Risk of explosion by shock, friction or other sources of ignition. Use non sparking handtools and explosion-proof electric equipment. Do not smoke or use open fire, or other sources of ignition.
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### 7.2. Conditions for safe storage, including any incompatibilities

Storage	Store locked up. Store in a dry place. Keep cool. Protect from sunlight. National regulations must be followed with handling and storage.
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### 7.3. Specific end use(s)

Specific use(s)	See Section 1.2
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## SECTION 8: Exposure controls / personal protection

### 8.1. Control parameters

Substance	Identification	Value	TWA Year
Ammonium Nitrate	CAS No.: 6484-52-2		

### DNEL / PNEC

Substance	Ammonium Nitrate
DNEL	<p><b>Group:</b> Professional</p> <p><b>Route of exposure:</b> Long term (repeated) - Inhalation - Systemic effect</p> <p><b>Value:</b> 37,6 mg/m<sup>3</sup></p> <p><b>Group:</b> Professional</p> <p><b>Route of exposure:</b> Long term (repeated) - Dermal - Systemic effect</p> <p><b>Value:</b> 21,3 mg/kg</p>
PNEC	<p><b>Route of exposure:</b> Sewage treatment plant STP</p> <p><b>Value:</b> 18 mg/l</p> <p><b>Route of exposure:</b> Saltwater</p> <p><b>Value:</b> 0,045 mg/l</p> <p><b>Route of exposure:</b> Freshwater</p> <p><b>Value:</b> 0,45 mg/l</p> <p><b>Value:</b> 4,5 mg/l</p> <p><b>Comments:</b> Periodic discharge</p>

### 8.2. Exposure controls

## Safety signs



### Eye / face protection

Eye protection Use eye protection.

### Hand protection

Hand protection Chemical resistant gloves required for prolonged or repeated contact.

Suitable materials Gloves of nitrile rubber, PVA or Viton are recommended.

### Skin protection

Skin protection (except hands) Wear appropriate clothing to prevent any possibility of skin contact.

### Respiratory protection

Respiratory protection Respiratory protection not required.

### Hygiene / environmental

Specific hygiene measures Wash hands always after work, before eating, drinking, smoking or going to the bathroom.

### Appropriate environmental exposure control

Environmental exposure controls Avoid the product from entering drains, sewers, waterways and soil.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Water-in-oil emulsion. Vaseline like mass in plastic film.
Colour	White - yellowish (Kemix) Metallic gray (Kemix A)
Odour	Odourless.
Odour limit	Comments: Not relevant.
pH	Status: In delivery state Comments: Not relevant.
Melting point / melting range	Comments: Not relevant.
Boiling point / boiling range	Comments: Not relevant.
Flash point	Value: > 200 °C Comments: The flash point of the oil contained in the product.
Evaporation rate	Comments: Not relevant.

Flammability (solid, gas)	Not determined.
Vapour pressure	Comments: Not relevant.
Vapour density	Comments: Not relevant.
Specific gravity	Value: ~ 1,2 g/cm <sup>3</sup>
Solubility description	The mixture is almost insoluble. Ammonium nitrate as such is very soluble in water.
Partition coefficient: n-octanol/water	Comments: Ammonium nitrate: <1
Spontaneous combustability	Comments: Not determined.
Decomposition temperature	Value: > 100 °C
Viscosity	Comments: Not determined.
Explosive properties	Explosive
Oxidising properties	Ammonium nitrate: oxidizing

## 9.2. Other information

### Other physical and chemical properties

Comments Not determined.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity No dangerous reactions known under conditions of normal use.

### 10.2. Chemical stability

Stability Stable under the prescribed storage conditions.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None known under normal storage and handling conditions.

### 10.4. Conditions to avoid

Conditions to avoid Risk of explosion by shock, friction, fire or other sources of ignition.

### 10.5. Incompatible materials

Materials to avoid Strong alkalis. Strong acids. Reducing agents and organic materials. Do not let foreign materials get mixed in the product.

### 10.6. Hazardous decomposition products

Hazardous decomposition products During fire, toxic gases (CO, CO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub>) are formed.

## SECTION 11: Toxicological information

## 11.1. Information on toxicological effects

Substance	Ammonium Nitrate
Acute toxicity	<p><b>Type of toxicity:</b> Acute  <b>Effect tested:</b> LD50  <b>Route of exposure:</b> Oral  <b>Value:</b> 2950 mg/kg  <b>Animal test species:</b> Rat  <b>Test reference:</b> IUCLID 5</p> <p><b>Type of toxicity:</b> Acute  <b>Effect tested:</b> LD50  <b>Route of exposure:</b> Dermal  <b>Value:</b> &gt; 5000 mg/kg  <b>Animal test species:</b> Rat  <b>Test reference:</b> IUCLID 5</p>

## Other information regarding health hazards

Irritation	Irritating to the eyes. May cause skin irritation.
Corrosivity	Not known.
Sensitisation	Not known.
Repeated dose toxicity	Not known.
Carcinogenicity, other information	Not known.
Teratogenic properties	No data recorded.
Reproductive toxicity	No data recorded.
Other adverse toxicological effects	Not determined.

## SECTION 12: Ecological information

### 12.1. Toxicity

Substance	Ammonium Nitrate
Acute aquatic, fish	<p><b>Value:</b> 447 mg/l  <b>Test duration:</b> 48 h  <b>Method:</b> LC50  <b>Test reference:</b> IUCLID 5</p>
Substance	Ammonium Nitrate
Acute aquatic, algae	<p><b>Value:</b> &gt; 1700 mg/l  <b>Test duration:</b> 10 d  <b>Method:</b> EC50  <b>Test reference:</b> IUCLID 5</p>
Substance	Ammonium Nitrate
Acute aquatic, Daphnia	<p><b>Value:</b> 490 mg/l  <b>Test duration:</b> 48 h  <b>Method:</b> EC50</p>

**Test reference:** IUCLID 5

Ecotoxicity

Not classified as dangerous to the environment. However, the product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters.

**12.2. Persistence and degradability**

Persistence and degradability, comments Ammonium nitrate: biodegradable

**12.3. Bioaccumulative potential**

Bioaccumulation, evaluation Ammonium nitrate: not bioaccumulative (LogPow <1)  
Base oil hydrocarbons: possibly accumulative (logPow >6).

**12.4. Mobility in soil**

Mobility

The product contains substances, which are water soluble and may spread in water systems.

**12.5. Results of PBT and vPvB assessment**

PBT assessment results Not determined.

vPvB evaluation results Not determined.

**12.6. Other adverse effects**

Other adverse effects, comments No data recorded.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Specify the appropriate methods of disposal

Do not allow runoff to sewer, waterway or ground. Do not mix with normal waste. Explosives waste and explosives-tainted containers must be collected immediately and disposed only under the supervision of experts and in accordance with given regulations. Uncleaned empty containers are to be handled in the same way as the ones containing products.

Product classified as hazardous waste

Yes

**SECTION 14: Transport information****14.1. UN number**

ADR / RID / ADN 0241

IMDG 0241

ICAO / IATA 0241

**14.2. UN proper shipping name**



ADR / RID / ADN	EXPLOSIVE, BLASTING, TYPE E
IMDG	EXPLOSIVE, BLASTING, TYPE E
ICAO / IATA	EXPLOSIVE, BLASTING, TYPE E

### 14.3. Transport hazard class(es)

ADR / RID / ADN	1.1D
IMDG	1.1D
ICAO / IATA	1.1D
Comments	Prohibited from air transport.

### 14.4. Packing group

Comments	Not determined.
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### 14.5. Environmental hazards

Comments	Not determined.
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### 14.6. Special precautions for user

Special safety precautions for user	Not determined.
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### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

#### IMDG / ICAO / IATA Other information

EmS	F-B, S-X
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## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

Comments	For professional users only.
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### 15.2. Chemical safety assessment

CSR required	No
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## SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	H201 Explosive; mass explosion hazard. H272 May intensify fire; oxidiser. H319 Causes serious eye irritation.
Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Expl. 1.1; H201 Eye Irrit. 2; H319
Key literature references and sources for data	REACH Directive (EC) 1907/2006 CLP Regulation (EC) 1272/2008

## Material Safety Data Sheets on raw materials

Version

2

Comments

The information in this MSDS 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 is not at our control, it is the user's duty to specify the circumstances for the safe use of the product.