

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

Trade name: MERIKEMIITTI
Use: Quarrying explosive
Industry code: CB
Use code: 18
Manufacturer: OY FORCIT AB
 VIHTAVUOREN TEHDAS
 41330 VIHTAVUORI
 FINLAND
 Tel. +358 (0)20 744 0400 Fax. +358 (0)20 744 0225
 E-mail address: forcit@forcit.fi
Emergency telephone number: +358 (0)20 744 0400

2. Hazards identification

Classification of mixture: E; explosive
Hazards: R2: Explosive when exposed to shock, friction, fire, or other sources of ignition.

3. Composition and information on ingredients

Definition: Water in oil bulk-emulsion explosive, pumped to borehole

Hazardous ingredients: Ammonium nitrate, aluminium powder

Name of ingredient:	Content :	CAS-#:	Code letters; R-phrases:
Ammonium nitrate	~70%	6484-52-2	O; R5-9
Aluminum powder	10-15%	7429-90-5	F; R15-17

4. First aid measures

Inhalation:	Medical treatment is necessary if combustion gases or thermal degradation products have reached the airways. Bring the patient into fresh air as soon as possible and seek medical assistance. If the patient is unconscious, place and carry the patient in the recovery position. If the patient stops breathing, start artificial respiration. Symptoms of breathing combustion gases do not necessarily appear immediately. The patient should be kept under medical observation for 48 hours at minimum.
Skin:	Wash the skin with soap and water.
Eyes:	Rinse with plenty of water and seek medical assistance.
Ingestion:	The affected person should drink plenty of water immediately. Seek medical assistance.

5. Fire fighting measures

General:	All possible means must be used to prevent the fire from spreading to the product. If the product is in danger of ignition or fire: Danger of explosion; no extinguishing attempts. Arrange evacuation and warn those in the immediate surroundings about the danger of explosion.
Special exposure hazards in a fire:	Toxic or harmful gases and degradation products, such as nitrogen oxides, carbon monoxide, and ammonia, may be created in fire or heat. Danger of explosion. Danger of pulmonary edema.

6. Accidental release measures

Personal precautions:	Avoid skin contact with the product.
Environmental precautions:	Prevent the substance from entering the soil, water areas, and sewers.
Methods for cleaning up:	Collect the residues with suitable non-sparking tools. Store the residues in tagged and closed packages and dispose of them as required by the authorities.

7. Handling and storage

Handling:	Isolate from hot surfaces and ignition sources. Do not smoke in the area. Avoid mechanical stress and use non-sparking tools.
Storage:	Not applicable.
Special measures:	National regulations must be observed in handling and storage.

8. Exposure controls / personal protection

Limit values for occupational safety:	Not applicable.
Protection from exposure:	Use protective gloves and glasses. Always wash hands before breaks and at the end of the work shift.

9. Physical and chemical properties

Physical state:	Water in oil emulsion, mass that resembles petroleum jelly.
Colour:	Gray
Odor:	Odorless
Melting point:	Not applicable
Thermal decomposition:	> 100 °C (water in the nitrate solution evaporates)
Flash point:	> 200 °C
Risk of explosion:	Strong impact, friction, or heat particularly above 200 °C in non-open space
Relative density:	1.27-1.33 g/cm ³
Solubility:	In water: Almost non-soluble; fat-solubility: Oil phase dissolves

10. Stability and reactivity

Conditions to avoid:	Risk of explosion by shock, friction, fire, or other sources of ignition.
Materials to avoid:	Strong alkalis (creation of ammonia). The product must not be mixed with foreign matter.
Hazardous decomposition products:	In fire or when heated to over 200 °C: nitrogen oxides, carbon monoxide, and ammonia.

11. Toxicological information

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

12. Ecological information

Ecotoxicity: Non-toxic, according to present knowledge.

Mobility: Nitrates dissolved in water may enter the ground-water and affect its quality.

Degradability: Ammonium nitrate decomposes perfectly in nature.

Bioaccumulation: Does not accumulate.

13. Disposal considerations

Disposal: Waste must be disposed of in accordance with national regulations.

14. Transport information

UN - number: 0241

Packaging group: Not applicable

Packaging code: IBC100

ADR/RID - class: 1

Classification code: 1.1D

Proper shipping name: Quarrying explosive, type E

IMDG - class: 1.1D

EMS - number: -

ICAO/IATA - class: Air transport forbidden

15. Regulatory information

Labeling:	Explosive (E).
Other regulations:	The product's use is regulated by special legislation, which must be followed.

16. Other information

R-phrases:	R2: Explosive when exposed to shock, friction, fire, or other sources of ignition. R5: Danger of explosion when heated. R8: Causes a fire risk with combustible material. R9: Explosive when mixed with combustible material.
Restrictions on use:	Charging must be performed with a charging device approved for the purpose.
Training instructions:	Charger training for use. Special training is given by Oy Forcit Ab.
Further information:	Product specification is available from Oy Forcit Ab (for detailed information, see www.forcit.fi).

This sheet is based on our best current knowledge. However, it must not be considered a guarantee of certain properties of the products described or their suitability for any particular use. Because we cannot control the use of this information and instructions or the operating conditions for the product, the user is obliged to determine the conditions necessary for safe use of the product.