

### Product description

The aerosol fire suppression agent technology developed by Dynamit Nobel Defence GmbH is one of the leading technologies worldwide. The product range Dynameco aerosol fire extinguishing generators is designed for the suppression of fires in objects and in rooms hence covering a wide range of applications. Dynameco aerosol fire extinguishing generators contains a high temperature extinguishing charge. In the case of fire, this extinguishing charge is ignited electrically, thermally or pneumatically. The chemical reaction process generates potassium carbonate, which discharges as solid aerosol. The high effectivity of the fire suppression agent - a minimum of the fire suppression agent generates a maximum fire suppression performance – ensures that fires are extinguished within few seconds. The Dynameco aerosol fire extinguishing generators are particularly suitable for fighting fires in their formation phase.

### Dynameco Models

Device with electrical ignition	
Dynameco	200-E02
Dynameco	300-E02
Dynameco	2000-E02
Dynameco	50-E03
Dynameco	50-Mil
Dynameco	200-Mil
Dynameco	300-Mil
Dynameco	2000-Mil

Device with thermal / mechanical ignition	
Dynameco	200-TA08
Dynameco	300-TA08
Dynameco	2000-TA08
Dynameco	200-PA01
Dynameco	300-PA01
Dynameco	2000-PA01

### Producer / supplier

Dynamit Nobel Defence GmbH

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## Safety instructions

### Hazards Identification

*Additional warning of danger for people and the environment*

The aerosol fire extinguishing generator in the present formulation is no danger of explosion. In case of activation, the generator merely creates a hot aerosol stream. Through fire the generator can be triggered. In the close-up range of the exhaust port occur hot gases, which can determine incinerations.

### First Aid Measures

*General information*

In case of fire medical assistance is necessary, should symptoms occur which can be presumed to be a result of inhalation of gases resulting from fire.

*Further information*

After inhalation

Should dust be inhaled, victim must quickly be brought into the open air and a doctor must be consulted.

After contact with the skin:

Wash affected area of the skin with soap and water.

After contact with the eyes:

With the eyes open rinse the eyes with large quantities of water and consult an ophthalmic specialist.

After swallowing:

The product can only be swallowed after crushing. After swallowing the crushed product a doctor must be called. Vomiting must be induced under medical directions.

### Fire-Fighting Measures

*In case of packaging- or environment fire*

Water, extinguishing powder, foam

Fires in the proximity to be fought with all available means (water, extinguisher powder, extinguisher foam etc.) Prevent spread of the fire to the product at all costs. Should the product be ignited the fire will be extreme, therefore extinguish only from a safe distance, respectively with safe cover.

Suitable extinguishing materials: water

Unsuitable extinguishing materials: fire suffocating extinguishing materials are without affect.

In case of fire do not inhale dangerous gases e.g. nitrogen oxide, carbon monoxide, ammonia gas, fire gases.

*Special protective equipment:*

In case of fire breathing equipment with independent, local air supply, together with protective clothing must be worn.

### Measures in the event of accidental triggering

Remove all possible sources of ignition.

Avoid contact the skin, eyes and clothing.

The product should only be collected with non-spark producing tools.

In the case of manual collection disposable vinyl gloves must be worn.  
Do not allow the product to escape into the drainage system, surface water or ground water.  
Product no longer fit for use must be disposed in an appropriate manner.

## Handling and Storage

### Handling

#### *Precautions in handling*

- Use only fire-extinguishing system according to instructions.
- Do not hold in your hand when burning.
- Keep away from heat sources and open flames
- measures to prevent electrostatic charging
- Avoid sparking

### Storage

Only to be stored in suitable facilities. Protect from heat. Keep away from all sources of ignition Observe the law governing the guidelines.

Requirements for storage rooms and containers / storage conditions:

- cool and dry
- Keep away from heat
- Storage Group (VCI): class 13 (non-flammable solid materials)
- Operating time: 5 years
- Shelf life: 10 years

## Stability and Reactivity

#### *Conditions to be avoided/dangerous reactions*

- Heating up to more than 200°C,
- blows and shock effects, abrasion,
- contact with sources of ignition and electrostatic load
- *Possible dangerous reactions:* very fast burnout

#### *Materials to be avoided*

Acids, bases, magnesium, other metals (in powder form).

#### *Possible dangerous reactions:*

massive disintegration of the nitro guanidine, ignition as a result of reaction with potassium nitrate

#### *Dangerous products of reaction*

Nitrogen oxide, carbon monoxide, ammonia gas

## Toxicology

Acute oral toxicity LD50 (Ratte): 2.450 mg/kg potassium nitrate  
(RTECS August 2003)

4.640 mg/kg nitro guanidine

(T. Urbanski, Chem. and Tech. of Expl., ISBN 0-08-026206-6, Bd. 4)

**Further information:**

In case of activation of the aerosol fire extinguishing generator potassium carbonate emission pursues under hydrolytic processes an increase in the pH-value in a range around 7.5 to 8.6. This weak alkalinity is tolerated by the skin without irritation.

With designated use and handling the intact object constitutes no health hazard.

**Ecological toxicology**

Fish toxicity LC50: 200 mg/l potassium nitrate (96 h)

(Poecilia reticulata: Guppy) >1,600 mg/l nitro guanidine (96 h)

Daphnia toxicity LC50: 39 mg/l potassium nitrate (96 h)

(Daphnia magna) >3,000 mg/l nitro guanidine (48 h)

As a result of their solubility potassium nitrate and nitro guanidine can seep into the ground water.

**Persistence and decomposition:**

nitro guanidine is not biodegradable in accordance with OECD No. 302.

**Further information:**

Potassium nitrate and nitro guanidine are classified in the danger to water classification WGK 1 (low danger to water).

As for the possible danger to drinking water the aerosol extinguisher contents must not get into the ground water, sewage or soil.

**Disposal information**

Disposal after consultation with the manufacturer.

Superimposed extinguishers back to the manufacturer.

Spent extinguishers after consultation with the manufacturer.

**Transport information**

Land Transport	ADR / RID
Class ADR/RID	9
UN Number	3268
Marking of the Goods	Fire extinguishing system for safety devices
Remark	Special provision 280
Inland Water Navigation	AND/ADNR
Sea Transport	IMDG-Code / GGVSee:
Class IMDG	9
UN Number	3268
Marking of the Goods	Fire extinguishing system for safety devices
Airtransport	ICAO-TI and IATA-DGR
Class ADR/RID	9
UN Number	3268
Remark	Special provision A115

**Transport/Further information**

In compliance with the ICAO Technical Instructions, the items may be transported with freight and passenger aircraft.

## Further permissions and qualifications

Federal Institute for Materials Research and Testing (BAM) with Notice N° D/BAM-0504/17;  
D/BAM-0853/17; D/BAM-0854/17; D/BAM-0878/17; D/BAM-0879/17; D/BAM-0880/17  
„Declaration of Conformity“ (CE)

The containing data only serve as information, together with other relevant product-specific data and information, in particular the instruction for use.  
For further questions, please contact your sales or installation partner or the manufacturer directly.