The technical information for transport and handling based in parts on the ASI / Article Safety Information and is essentially concerned with transport and handling of dangerous goods

Section 1: Identification of Article and of the Company

1.1 Article identifier:

Product description:	The article is an aerosol fire extinguisher
Name of article and/or system:	Dynameco AEROSOL- Extinguishing Generator
Contains:	Inorganic salts, adhesives, sealants, metals and nitroguanidine
Valid for following models / types:	25-E03, 50-E03, 50-Mil, 200-E02, 200-E03, 200-Mil, 200-TA08, 200-PA01, 300-E02, 300-E03, 300-MIL, 300-TA08, 300-PA01, 2000-E02, 2000-E03, 2000-MIL, 2000-TA08 und 2000-PA01

1.2 Relevant identified uses of the article and uses advised against:

Relevant identified uses of the article:	Fire extinguisher for objects and/or in rooms
Uses advised against:	Disintegration

1.3 Details of the supplier of the article safety information:

Supplier/Manufacturer:	Dynamit Nobel Defence GmbH
Address Street:	Dr.-Hermann-Fleck-Allee 8
Postal Code and City:	57299 Burbach
Country:	Germany
Fax:	+49 2736 46 2107
Email-Address:	info@dynameco.com
Manufacturer:	+49 2736 46 2014

Information on substances in articles

acc. to article 33 of regulation (EC) No. 1907/2006 (REACH)

This article does not contain any substances of very high concern (SVHC).

Section 2: First aid measures

2.1 General statement(s):

In case of burns and inhalation of combustion products, please advise medical services. Take special care on symptoms of inhalation of combustion gases.

Further advices:

After inhalation:	Move to fresh air, consult doctor.
In case of unconsciousness:	Bring into recovery position, also during transport.
In case of apnea:	Breath donation or use oxygen supply.

2.2 Self-protection of first-aider:

Close to the exit side of the article, heat and combustions gases can be hazardous.

Section 3: Firefighting measures

3.1 Extinguishing media:

Suitable extinguishing media: Water, powder or foam.

Unsuitable extinguishing media: None.

These statements are valid in particular for packaged articles and fire of the environment that has to be extinguished without use of the article. Since the article is a fire extinguisher itself, extinguishing agents are directly present.

3.2 Special hazards arising from the article:

In case of abnormal handling of the article, 1-nitroguanidine can be exposed, which is explosive in dry condition.
Forming of combustion products during extinguishing like potassium carbonate, carbon monoxide, carbon dioxide, water, nitrogen and carbon black. If ventilating is sufficient, hazards will be avoided.
Close to the exit side of the article, heat and combustions gases can be hazardous.

3.3 Advice for fire-fighters:

The article is a fire extinguisher that can be ignited via flames. Smoke and condensed combustion products can limit clear sight.

Section 4: Accidental release measures

4.1 Personal precautions, protective equipment and emergency procedures:

The article is a fire extinguisher that can be ignited via flames. Do not smoke. Consider technical specification and instructions.

4.2 Environmental precautions:

No special measures required.

4.3 Methods and material for containment and cleaning up:

Unintended Activation:

Aerosol leaves behind a fine dust that can be removed e.g. by suction.
In case of affected electronic systems, we refer to the cleaning recommendation.

4.4 Reference to other sections:

Advices for usage and storage, see section 5.
Advices for personal protective equipment, see section 6.
Advices for disposal, see section 10.

Section 5: Handling and Storage

5.1 Precautions for safe handling:

Protective measures and safe handling for the user

During extinguishing process, combustion products like potassium carbonate, carbon monoxide, carbon dioxide, water, nitrogen and carbon black are produced. Sufficient ventilation recommended as this avoids hazards.

Handle only as an extinguishing generator in accordance to instructions.
Do not use the article in a hand-held mode.
Functional temperature: -40 °C to 85 °C

Fire and explosion preventions
Avoid heat and smoke. Keep away from hot surfaces and open flames. Avoid mechanical stresses and electrostatic discharge. Do not disintegrate the article.

Aerosol and dust generation preventions
Care for sufficient ventilation.

Environmental precautions: Not applicable

5.2 Conditions for safe storage, including any incompatibilities:

Technical measures and storage conditions
Stable for ten (10) years when stored correctly.
Operational time: five (5) years

Requirements for storage rooms and vessels
Store in a cool and dry place.

5.3 Specific end uses:

End uses according to section 1.2.
This end-use is a one-time-use and the only allowed use of the article. Other uses are prohibited.

Section 6: Exposure Controls/Personal Protection

6.1 Control parameters:

Operation and storage temperature. Handling and usage instruction. Optical check of the article's condition supports the control of the parameters. Consider usage instructions.

6.2 Exposure controls:

Appropriate engineering controls: Care for sufficient ventilating.
Personal protective equipment: Not applicable.

Remarks: None.

Section 7: Stability und Reactivity

7.1 Reactivity:

No reactivity issues, if stored and used correctly.

7.2 Chemical stability:

Avoid high temperatures (> 200 °C), static charge as well as friction and shock loads. No stability issues, if stored and used correctly.

7.3 Possibility of hazardous reactions:

In combination with oxidizers. Reactions potentially form toxic gases.

7.4 Incompatible materials:

Strong acids and oxidizers.

7.5 Hazardous decomposition products:

During activation of Dynameco, carbon monoxide and carbon dioxide are produced. However, when cared for sufficient ventilation, this does not result in a hazard.

Section 8: Toxicological information

8.1 Information on toxicological effects:

Acute Toxicity

The article itself is considered as non-toxic by intended use, handling and storage.
If the article is not handled appropriately, there can be a serious damage referring to eye irritation or environment.

Serious eye damage or irritation

The relevant substance is iron (III) oxide (additive).
Classification of the substance: Category 2 → SCL: Category 2: 10 % (General Limit)

Explicit data related to acute effects have been investigated. A pH-value of 7.5 to 8.6 was measured that indicated a slight alkalinity. This value depends on the contact medium. The human skin can usually tolerate such pH-values. → Therefore, a skin corrosion or irritation is not considered for this article.

Acute toxicity data of the mixture and all related substances are always above a critical limit of 2000 mg/kg. → Therefore, an acute toxicity is not considered for this article.

Section 9: Ecological information

9.1 Toxicity:

The article is considered as non-toxic and does not impact the environment by intended use.
→ Even if the article is not handled appropriately, there is no chronic hazard to the aquatic environment.
The only substance included in the article that is relevant to the aquatic environment is 2,2,4,6,6-pentamethylheptane. This substance may cause long lasting harmful effects to aquatic life (Cat. 4).
As a result, the mixture of all components is not classified as chronically hazardous to water.

9.2 Persistence and degradability:

Not applicable.

9.3 Bioaccumulative potential:

Not applicable.

Section 10: Disposal considerations

10.1 Waste treatment methods:

Used articles can usually be disposed with other metals. Do not dispose unused article together with household waste. Hazardous subcomponents pose an explosion hazard. Contact the manufacturer for explicit disposal instructions, if the article was not used as designed. If the article is stored too long, refer to the manufacturer.
The user of this article has the responsibility to dispose of unused articles and residues in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and non-hazardous wastes.

Section 11: Transport information

11.1 UN-Number:

UN 3268 - Safety Devices, electrically initiated

11.2 Transport hazard class:

9 Miscellaneous

11.3 Further transport information:

Transport is permissible via the following ways:

Transport by road and railway:	ADR/RID Special provision 280
Transport by maritime navigation:	IMDG/GGVSee EmS-Fire-No. and EmS-Leakage-No.: F-B and S-X

Transport by inland waterways:	AND/ADNR
Transport by aviation:	ICAO-TI and IATA-DGR The article can be shipped by plane in accordance with the ICAO-Technical Instructions. Special provision: A115

11.4 Packaging group and –method:

Recommended: Packing group II

11.5 Environmental hazards:

Please refer to section 9.

Section 12: Regulatory information

12.1 Safety, health and environmental legislation specific for the article:

Relevant Labels: ADR Label and CE sign (a complete CLP label is provided separately)

ADR

CE

Beside REACH and CLP there can be national laws applicable due to the presence of explosive materials. E.g. in Germany: Chemikalien-Verbotsverordnung (ChemVerbotsV), Sprengstoffgesetz SprengG including all statutory instruments (1. SprengV, …)

12.2 Chemical Safety Assessment:

Not applicable.

Section 13: Other information

Abbreviations:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road according to „UN Recommendations on the Transport of Dangerous Goods“
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways according to „UN Recommendations on the Transport of Dangerous Goods“
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization

ICAO-TI	Technical Instructions For The Safe Transport of Dangerous Goods by Air
IMDG	International Maritime Code for Dangerous Goods
RID	Convention concerning International Carriage by Rail

All mentioned statements are based on our knowledge at the date of revision. These statements describe the article as delivered to define safety measures and evaluate the danger potential. It is not useful to conclude full functional information from this safety information.
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