

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date December 1, 2015

Revision: December 1, 2015

Trade name: Muzzle Blast 37mm Powder Dispersion Round, CN

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
Fire or projection hazard.
Toxic fumes may be released if heated above the decomposition point.
Reacts with flammable substances.
Reacts with strong acids and alkali.
- **10.4 Conditions to avoid**
Store away from oxidising agents.
Keep ignition sources away - Do not smoke.
Cartridge may detonate if case is punctured or severely damaged.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Toxic metal oxide smoke
Chlorine compounds
Nitrogen oxides

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Toxic if swallowed, in contact with skin or if inhaled.

· **LD/LC50 values relevant for classification:**

532-27-4 2-chloroacetophenone

Oral	LD50	50 mg/kg (rat)
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55-63-0 glycerol trinitrate / nitroglycerin

Oral	LD50	115 mg/kg (mouse)
		105 mg/kg (rat)
Dermal	LD50	29 mg/kg (rat)
		280 mg/kg (rabbit)

122-39-4 diphenylamine

Oral	LD50	1120 mg/kg (rat)
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- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
- **Additional toxicological information:**
Normal handling of the undeployed product poses little or no health hazards, One should avoid inhalation by wearing appropriate respiratory protection when exposed to the chemical ingredients of the product above listed TLV's or when exposed to the post ignition by-products. This product is a canister which

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contains the various components completely sealed within. Therefore, under normal handling of this product, no exposure to any harmful materials will occur. When the product is used, particles may be generated which may be irritating to the eyes and the respiratory tract.

Toxic and/or corrosive effects may be delayed up to 24 hours.

Danger through skin adsorption.

· **Acute effects (acute toxicity, irritation and corrosivity):**

Danger of blast or crush-type injuries.

Toxic if swallowed, in contact with skin or if inhaled.

Causes serious eye damage.

May cause respiratory irritation.

Irritating to skin.

· **Repeated dose toxicity:**

Repeated exposures may result in skin and/or respiratory sensitivity.

May cause damage to organs through prolonged or repeated exposure.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

· **Carcinogenicity** Based on available data, the classification criteria are not met.

· **Reproductive toxicity** Based on available data, the classification criteria are not met.

· **STOT-single exposure** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure** Based on available data, the classification criteria are not met.

· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Harmful to fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Harmful to aquatic organisms

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

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

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

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SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

· Uncleaned packaging:

· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· DOT, ADR, IMDG, IATA UN0301

· 14.2 UN proper shipping name

· DOT Ammunition Tear-producing with burster, expelling charge or propelling charge

· ADR 0301 AMMUNITION TEAR-PRODUCING with burster, expelling charge or propelling charge

· IMDG, IATA AMMUNITION TEAR-PRODUCING with burster, expelling charge or propelling charge

· 14.3 Transport hazard class(es)

· DOT



· Class

1.4

· Label

1.4G, 6.1, 8

· ADR



· Class

1.4 ()

· Label

1.4G+6.1+8

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· **IMDG**

· **Class** 1.4
 · **Label** 1.4G/6.1/8

· **IATA**

· **Class** 1.4
 · **Label** 1.4G (6.1, 8)

· **14.4 Packing group**
 · **DOT, ADR, IMDG, IATA** II

· **14.5 Environmental hazards:**
 · **Marine pollutant:** No
 · **Special marking (IATA):**



Cargo Aircraft Only.

· **14.6 Special precautions for user** Not applicable.
 · **EMS Number:** F-B,S-Z

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **ADR**
 · **Limited quantities (LQ)** 0
 · **Excepted quantities (EQ)** Code: E0
 Not permitted as Excepted Quantity

· **IMDG**
 · **Limited quantities (LQ)** 0
 · **Excepted quantities (EQ)** Code: E0
 Not permitted as Excepted Quantity

· **UN "Model Regulation":** UN0301, 0301, ENVIRONMENTALLY HAZARDOUS, 1.4G (6.1+8), II

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SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

7757-79-1	potassium nitrate
532-27-4	2-chloroacetophenone
55-63-0	glycerol trinitrate / nitroglycerin

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65 (California):

· Chemicals known to cause cancer:

15245-44-0	lead 2,4,6-trinitro-m-phenylene dioxide/ lead styphnate
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· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

Present in trace quantities.

15245-44-0	lead 2,4,6-trinitro-m-phenylene dioxide/ lead styphnate
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· Carcinogenic Categories

· EPA (Environmental Protection Agency)

7778-74-7	potassium perchlorate	NL
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· IARC (International Agency for Research on Cancer)

69012-64-2	Silica-Amorphous Silica fume	3
7631-86-9	silicon dioxide	3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

· Canada

· Canadian Domestic Substances List (DSL)

Some components are listed on the NDSL.

9004-70-0	Nitrocellulose, colloided, granular
7757-79-1	potassium nitrate
8015-86-9	caruba wax
69012-64-2	Silica-Amorphous Silica fume
55-63-0	glycerol trinitrate / nitroglycerin
1309-48-4	magnesium oxide

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7778-74-7	potassium perchlorate
7631-86-9	silicon dioxide
7704-34-9	sulfur
7440-44-0	carbon
1314-23-4	zirconium dioxide
8050-09-7	Rosin
16291-96-6	charcoal
85-98-3	1,3-diethyldiphenylurea
7439-89-6	iron

· **Canadian Ingredient Disclosure list (limit 0.1%)**

122-39-4	diphenylamine
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· **Canadian Ingredient Disclosure list (limit 1%)**

532-27-4	2-chloroacetophenone
1309-48-4	magnesium oxide
7631-86-9	silicon dioxide

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I**

None of the ingredients are listed.

· **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H200 Unstable explosives.
 H201 Explosive; mass explosion hazard.
 H225 Highly flammable liquid and vapour.
 H271 May cause fire or explosion; strong oxidiser.
 H272 May intensify fire; oxidiser.
 H300 Fatal if swallowed.
 H301 Toxic if swallowed.
 H302 Harmful if swallowed.
 H310 Fatal in contact with skin.
 H311 Toxic in contact with skin.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.

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H330 Fatal if inhaled.

H331 Toxic if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

Expl. 1.1: Explosives, Division 1.1

Expl. 1.4: Explosives, Division 1.4

Unst. Expl.: Explosives, Unstable explosives

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Ox. Sol. 1: Oxidising Solids, Hazard Category 1

Ox. Sol. 2: Oxidising Solids, Hazard Category 2

Acute Tox. 2: Acute toxicity, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 3: Acute toxicity, Hazard Category 3

Acute Tox. 1: Acute toxicity, Hazard Category 1

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

Sources

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