

# 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

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

- **1.1 Product identifier**
- **Trade name: Muzzle Blast 37mm Powder Dispersion Round, CN**
- **Article number: 1141 (1012245)**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture: Crowd Control Device**
- **Uses advised against** Contact manufacturer.
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
Safariland, LLC  
13386 International Parkway  
Jacksonville, FL 32218  
Customer Care (800) 347-1200
- **Further information obtainable from:** Customer Care Department
- **1.4 Emergency telephone number:**  
ChemTel Inc.  
+1 (800)255-3924, +1 (813)248-0585



## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H412.
-  exploding bomb  
 Expl. 1.4            H204 Fire or projection hazard.
-  skull and crossbones  
 Acute Tox. 3        H301 Toxic if swallowed.  
 Acute Tox. 3        H311 Toxic in contact with skin.  
 Acute Tox. 3        H331 Toxic if inhaled.
-  health hazard  
 Resp. Sens. 1      H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
-  corrosion  
 Eye Dam. 1        H318 Causes serious eye damage.

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Skin Irrit. 2      H315 Causes skin irritation.  
Skin Sens. 1      H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· **Additional information:** 0 % of the mixture consists of component(s) of unknown toxicity.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS01 GHS05 GHS06 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**

2-chloroacetophenone  
potassium chlorate  
Nitrocellulose, colloided, granular  
potassium nitrate

· **Hazard statements**

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H412.

H204                      Fire or projection hazard.  
H301+H311+H331      Toxic if swallowed, in contact with skin or if inhaled.  
H315                      Causes skin irritation.  
H318                      Causes serious eye damage.  
H334                      May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317                      May cause an allergic skin reaction.  
H412                      Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

P210                      Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P250                      Do not subject to grinding/shock/friction.  
P260                      Do not breathe dust.  
P284                      In case of inadequate ventilation wear respiratory protection.  
P305+P351+P338      IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P370+P380              In case of fire: Evacuate area.  
P302+P352              IF ON SKIN: Wash with plenty of water.  
P342+P311              If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
P333+P313              If skin irritation or rash occurs: Get medical advice/attention.  
P401                      Store in accordance with local/regional/national/international regulations.

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- **Additional information:**  
Can become highly flammable in use.
- **NFPA ratings (scale 0 - 4)**



Health = 4  
Fire = 0  
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = \*3  
Fire = 0  
Reactivity = 0

\* - Indicates a long term health hazard from repeated or prolonged exposures.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

- **Explosive Product Notice**

PREVENTION OF ACCIDENTS IN THE USE OF EXPLOSIVES - The prevention of accidents in the use of explosives is a result of careful planning and observance of the best known practices. The explosives user must remember that he is dealing with a powerful force and that various devices and methods have been developed to assist him in directing this force. He should realize that this force, if misdirected, may either kill or injure both him and his fellow workers.

WARNING - All explosives are dangerous and must be carefully handled and used following approved safety procedures either by or under the direction of competent, experienced persons in accordance with all applicable federal, state, and local laws, regulations, or ordinances. If you have any questions or doubts as to how to use any explosive product, DO NOT USE IT before consulting with your supervisor, or the manufacturer, if you do not have a supervisor. If your supervisor has any questions or doubts, he should consult the manufacturer before use.

## SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**

- **Description:**

Mixture of substances listed below with nonhazardous additions.

Product will contain various combinations of the following substances. Not all substances will be in each product.

- **Dangerous components:**

CAS: 9004-70-0	Nitrocellulose, colloided, granular
EC number: 603-037-0	Expl. 1.1, H201

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CAS: 7757-79-1 EINECS: 231-818-8	potassium nitrate Ox. Sol. 2, H272
CAS: 532-27-4 EINECS: 208-531-1	2-chloroacetophenone Acute Tox. 2, H300; Acute Tox. 3, H311; Acute Tox. 1, H330 Resp. Sens. 1, H334 Eye Dam. 1, H318 Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335
CAS: 69012-64-2 EINECS: 273-761-1	Silica-Amorphous Silica fume substance with a Community workplace exposure limit
CAS: 55-63-0 EINECS: 200-240-8 Index number: 603-034-00-X	glycerol trinitrate / nitroglycerin Unst. Expl., H200 Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330 STOT RE 2, H373 Aquatic Chronic 2, H411 Flam. Liq. 2, H225
CAS: 1309-48-4 EINECS: 215-171-9 Index number: 025-199-09-0	magnesium oxide substance with a Community workplace exposure limit
CAS: 7778-74-7 EINECS: 231-912-9 Index number: 017-008-00-5	potassium perchlorate Ox. Sol. 1, H271 Acute Tox. 4, H302
CAS: 7704-34-9 EINECS: 231-722-6 Index number: 016-094-00-1	sulfur Skin Irrit. 2, H315
CAS: 8050-09-7 EINECS: 232-475-7 Index number: 650-015-00-7	Rosin Skin Sens. 1, H317
CAS: 122-39-4 EINECS: 204-539-4 Index number: 612-026-00-5	diphenylamine Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 STOT RE 2, H373 Aquatic Acute 1, H400; Aquatic Chronic 1, H410

· **Additional information:** For the wording of the listed Hazard Statements refer to section 16.

· **Notable Trace Components (≤ 0,1% w/w)**

CAS: 122-39-4 EINECS: 204-539-4 Index number: 612-026-00-5	diphenylamine Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 STOT RE 2, H373 Aquatic Acute 1, H400; Aquatic Chronic 1, H410
CAS: 12403-82-6 EINECS: 235-642-2	dihydroxy[styphnato(2-)]dilead / lead styphnate Unst. Expl., H200 Acute Tox. 3, H301; Acute Tox. 2, H330 Carc. 1B, H350; Repr. 2, H361; STOT RE 2, H373 Aquatic Acute 1, H400; Aquatic Chronic 1, H410

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## SECTION 4: First aid measures

### · 4.1 Description of first aid measures

#### · **General information:**

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

#### · **After inhalation:**

Supply fresh air.

Seek immediate medical advice.

Seek medical help for symptoms or if unconscious.

Provide oxygen treatment if affected person has difficulty breathing.

In case of irregular breathing or respiratory arrest provide artificial respiration.

#### · **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

Seek immediate medical help for blistering or open wounds.

#### · **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

#### · **After swallowing:**

Unlikely route of exposure.

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

### · **4.2 Most important symptoms and effects, both acute and delayed**

Asthma attacks

Breathing difficulty

Coughing

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

Allergic reactions

Eye damage.

Irritating to respiratory system and skin.

#### · **Hazards**

Danger of blast or crush-type injuries.

Danger of impaired breathing.

Danger of disturbed cardiac rhythm.

Danger of pulmonary oedema.

Toxic if swallowed or in contact with skin.

Fatal if inhaled.

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

Contains 2-chloroacetophenone. May produce an allergic reaction.

If necessary oxygen respiration treatment.

Product may produce physical injury if mishandled. Treatment of these injuries should be based on the blast and compression effects.

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## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
Flood area with water. If no water is available, carbon dioxide, dry chemical or earth may be used. If the fire reaches the cargo, withdraw and let fire burn.  
DO NOT fight fire when fire reaches explosives.
- **For safety reasons unsuitable extinguishing agents:** None.
- **5.2 Special hazards arising from the substance or mixture**  
Fire or projection hazard.  
Product may explode if burned in confined space. Individual cartridges may explode. Mass explosion of many cartridges at once is unlikely.  
During heating or in case of fire poisonous gases are produced.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information**  
Eliminate all ignition sources if safe to do so.  
Evacuate area and fight fire from from the upwind side.  
Cool endangered product with water spray.  
Flammability Classification: (defined by 29 CFR 1910.1200) Explosive. Can explode under fire conditions. Individual devices will randomly explode. Will not mass explode if multiple devices are involved. Burning material may produce toxic and irritating vapors. In unusual cases, shrapnel may be thrown from exploding devices under containment. See 2008 Emergency response Guidebook for further information.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTEL AT 1-800-255-3924. Spills of this material should be handled carefully. Do not subject materials to mechanical shock or extreme heat. A spill of this material will normally not require emergency response team capabilities.  
Use respiratory protective device against the effects of fumes/dust/aerosol.  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Protect from heat.
- **6.2 Environmental precautions:**  
Do not allow to enter sewers/ surface or ground water.  
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Send for recovery or disposal in suitable receptacles.  
Dispose contaminated material as waste according to section 13.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Keep away from heat and direct sunlight.  
Handle with care. Avoid jolting, friction and impact.  
Use only outdoors or in a well-ventilated area.
- **Information about fire - and explosion protection:**  
Protect from heat.  
Emergency cooling must be available in case of nearby fire.  
Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Avoid storage near extreme heat, ignition sources or open flame.  
Protect from humidity and water.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Store away from oxidising agents.  
Store away from flammable substances.
- **Further information about storage conditions:** Store in dry conditions.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see section 7.
- **8.1 Control parameters**

### Ingredients with limit values that require monitoring at the workplace:

#### 532-27-4 2-chloroacetophenone

PEL (USA)	Long-term value: 0,3 mg/m <sup>3</sup> , 0,05 ppm
REL (USA)	Long-term value: 0,3 mg/m <sup>3</sup> , 0,05 ppm
TLV (USA)	Long-term value: 0,32 mg/m <sup>3</sup> , 0,05 ppm
EL (Canada)	Long-term value: 0,05 ppm
	S
EV (Canada)	Long-term value: 0,32 mg/m <sup>3</sup> , 0,05 ppm

#### 69012-64-2 Silica-Amorphous Silica fume

TLV (USA)	TLV withdrawn
EL (Canada)	Long-term value: 4* 1,5** mg/m <sup>3</sup> fume *total; **respirable
EV (Canada)	Long-term value: 2 mg/m <sup>3</sup> respirable

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**55-63-0 glycerol trinitrate / nitroglycerin**

PEL (USA)	Ceiling limit: 2 mg/m <sup>3</sup> , 0,2 ppm Skin
REL (USA)	Short-term value: 0,1 mg/m <sup>3</sup> Skin
TLV (USA)	Long-term value: 0,46 mg/m <sup>3</sup> , 0,05 ppm Skin
EL (Canada)	Long-term value: 0,05 ppm Skin
EV (Canada)	Long-term value: 0,5 mg/m <sup>3</sup> , 0,05 ppm Skin

**1309-48-4 magnesium oxide**

PEL (USA)	Long-term value: 15* mg/m <sup>3</sup> fume; *total particulate
TLV (USA)	Long-term value: 10* mg/m <sup>3</sup> *as inhalable fraction
EL (Canada)	Short-term value: 10** mg/m <sup>3</sup> Long-term value: 10* 3** mg/m <sup>3</sup> *inhalable fume;**respirable dust and fume
EV (Canada)	Long-term value: 10 mg/m <sup>3</sup> inhalable

**1314-23-4 zirconium dioxide**

PEL (USA)	Long-term value: 5 mg/m <sup>3</sup> as Zr
REL (USA)	Short-term value: 10 mg/m <sup>3</sup> Long-term value: 5 mg/m <sup>3</sup> as Zr
TLV (USA)	Short-term value: 10 mg/m <sup>3</sup> Long-term value: 5 mg/m <sup>3</sup> as Zr
EL (Canada)	Short-term value: 10 mg/m <sup>3</sup> Long-term value: 5 mg/m <sup>3</sup> as Zr

**8050-09-7 Rosin**

TLV (USA)	DSEN, RSEN, L
EL (Canada)	S

**7439-89-6 iron**

EV (Canada)	Long-term value: 1* 5** mg/m <sup>3</sup> as iron;*salts, water-soluble;**welding fume
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**122-39-4 diphenylamine**

REL (USA)	Long-term value: 10 mg/m <sup>3</sup>
TLV (USA)	Long-term value: 10 mg/m <sup>3</sup>
EL (Canada)	Long-term value: 10 mg/m <sup>3</sup>

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EV (Canada)	Long-term value: 10 mg/m <sup>3</sup>
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- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.

- **8.2 Exposure controls**

- **Engineering measures**

Do not subject to grinding/shock/friction.  
Use only outdoors or in a well-ventilated area.

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Do not inhale dust / smoke / mist.  
Avoid contact with the eyes and skin.

- **Respiratory protection:**



Respiratory protection required.

Wear positive pressure NIOSH or European EN149 vapor respirators when deploying product in large quantities.

- **Protection of hands:**

None required for handling unused product; where possible, use protective gloves for handling spent rounds.

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing

- **Limitation and supervision of exposure into the environment**

No further relevant information available.

- **Risk management measures**

See Section 7 for additional information.

Organizational measures should be in place for all activities involving this product.

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## SECTION 9: Physical and chemical properties

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

#### · General Information

#### · Appearance:

    Form: Solid metal container containing liquid and solid contents.

    Colour: According to product specification

· Odour: Odourless

· Odour threshold: Not determined.

· pH-value: Not applicable.

#### · Change in condition

    Melting point/Melting range: Not determined.

    Boiling point/Boiling range: Not determined.

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not determined.

· Auto/Self-ignition temperature: Not determined.

· Decomposition temperature: Not determined.

· Self-igniting: Product is not self-igniting.

· Danger of explosion: Fire or projection hazard.

#### · Explosion limits:

    Lower: Not determined.

    Upper: Not determined.

· Oxidising properties: Contains oxidizing agent.

· Vapour pressure: Not applicable.

· Density: Not determined.

· Relative density: Not determined.

· Vapour density: Not applicable.

· Evaporation rate: Not applicable.

#### · Solubility in / Miscibility with

    water: Insoluble.

· Partition coefficient (n-octanol/water): Not determined.

#### · Viscosity:

    Dynamic: Not applicable.

    Kinematic: Not applicable.

· 9.2 Other information: No further relevant information available.

## SECTION 10: Stability and reactivity

· 10.1 Reactivity: No further relevant information available.

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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)
------	------	------------------

- **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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# 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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· **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-diethylidiphenylurea
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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