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

- **1.1 Product identifier**
  - Trade name: Military-Style Maximum Smoke HC Grenade
  - Article number: 1083 (1011576)

- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
  - No further relevant information available.

- **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: H400, H410.

  - Expl. 1.4 H204 Fire or projection hazard.
  - Carc. 2 H351 Suspected of causing cancer.
  - STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

  - Aquatic Acute 1 H400 Very toxic to aquatic life.
  - Aquatic Chronic 1 H410 Very toxic 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.

(Cont'd. on page 2)
Trade name: Military-Style Maximum Smoke HC Grenade

- **Hazard pictograms**
  - This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS).
  - GHS01 GHS08 GHS09

- **Signal word** Warning

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

- **Hazard statements**
  - The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H410.
  - H204 Fire or projection hazard.
  - H351 Suspected of causing cancer.
  - H373 May cause damage to organs through prolonged or repeated exposure.
  - H410 Very toxic to aquatic life with long lasting effects.

- **Precautionary statements**
  - P201 Obtain special instructions before use.
  - P202 Do not handle until all safety precautions have been read and understood.
  - 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/fume/gas/mist/vapours/spray.
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P240 Ground/bond container and receiving equipment.
  - P373 DO NOT fight fire when fire reaches explosives.
  - P370+P380 In case of fire: Evacuate area.
  - P372 Explosion risk in case of fire.
  - P314 Get medical advice/attention if you feel unwell.
  - P401 Store in accordance with local/regional/national/international regulations.
  - P405 Store locked up.
  - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**
  - Can become highly flammable in use.

- **NFPA ratings (scale 0 - 4)**
  - Health = 0
  - Fire = 0
  - Reactivity = 3

(Cont'd. on page 3)
HMIS-ratings (scale 0 - 4)

- Health = *0
- Fire = 0
- Reactivity = 3

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.

<table>
<thead>
<tr>
<th>Dangerous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Index number: 030-013-00-7</td>
<td>zinc oxide</td>
</tr>
<tr>
<td></td>
<td>Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
</tr>
<tr>
<td></td>
<td>25-50%</td>
</tr>
<tr>
<td>CAS: 67-72-1</td>
<td>EINECS: 200-666-4</td>
</tr>
<tr>
<td>hexachloroethane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Carc. 2, H351; STOT RE 2, H373</td>
</tr>
<tr>
<td></td>
<td>25-50%</td>
</tr>
<tr>
<td>CAS: 7429-90-5</td>
<td>EINECS: 231-072-3</td>
</tr>
<tr>
<td>Index number: 013-002-00-1</td>
<td>aluminium powder (stabilised)</td>
</tr>
<tr>
<td></td>
<td>Flam. Sol. 1, H228; Water-react. 2, H261</td>
</tr>
<tr>
<td></td>
<td>2,5-10%</td>
</tr>
<tr>
<td>CAS: 7757-79-1</td>
<td>EINECS: 231-818-8</td>
</tr>
<tr>
<td>potassium nitrate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ox. Sol. 2, H272</td>
</tr>
<tr>
<td></td>
<td>≤ 2,5%</td>
</tr>
<tr>
<td>CAS: 7440-21-3</td>
<td>EINECS: 231-130-8</td>
</tr>
<tr>
<td>silicon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flam. Sol. 2, H228</td>
</tr>
<tr>
<td></td>
<td>≤ 2,5%</td>
</tr>
<tr>
<td>CAS: 9004-70-0</td>
<td>EC number: 603-037-0</td>
</tr>
<tr>
<td>Nitrocellulose, colloided, granular</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expl. 1.1, H201</td>
</tr>
<tr>
<td></td>
<td>≤ 2,5%</td>
</tr>
<tr>
<td>CAS: 7429-90-5</td>
<td>EINECS: 231-072-3</td>
</tr>
<tr>
<td>Index number: 013-001-00-6</td>
<td>aluminium powder (pyrophoric)</td>
</tr>
<tr>
<td></td>
<td>Pyr. Sol. 1, H250; Water-react. 2, H261</td>
</tr>
<tr>
<td></td>
<td>≤ 2,5%</td>
</tr>
</tbody>
</table>

(Cont’d. from page 2)
Trade name: Military-Style Maximum Smoke HC Grenade

- **Additional information:**
  For the listed ingredient(s), the identity and exact percentages are being withheld as a trade secret.
  For the wording of the listed Hazard Statements refer to section 16.

<table>
<thead>
<tr>
<th>Notable Trace Components (≤ 0,1% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 592-87-0</td>
</tr>
<tr>
<td>EINECS: 209-774-6</td>
</tr>
<tr>
<td>Index number: 082-001-00-6</td>
</tr>
<tr>
<td>lead dithiocyanate</td>
</tr>
<tr>
<td>Repr. 1A, H360Df; STOT RE 2, H373</td>
</tr>
<tr>
<td>Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
</tr>
<tr>
<td>Acute Tox. 4, H302; Acute Tox. 4, H332</td>
</tr>
</tbody>
</table>

| CAS: 7758-97-6                        |
| EINECS: 231-846-0                    |
| Index number: 082-004-00-2           |
| lead chromate                        |
| Carc. 1B, H350; Repr. 1A, H360Df; STOT RE 2, H373 |
| Aquatic Acute 1, H400; Aquatic Chronic 1, H410 |

| CAS: 10294-40-3                       |
| EINECS: 233-660-5                    |
| Index number: 056-002-00-7           |
| barium chromate                      |
| Acute Tox. 4; H302; Acute Tox. 4, H332 |

**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
  Immediately rinse with water.
  If skin irritation is experienced, consult a doctor.
- **After eye contact:**
  Remove contact lenses if worn.
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
  Unlikely route of exposure.
  Do not induce vomiting; call for medical help immediately.

- **4.2 Most important symptoms and effects, both acute and delayed**
  Blast injury if mishandled.
  Coughing
  Breathing difficulty

- **Hazards**
  Danger of blast or crush-type injuries.
  Danger of impaired breathing.
  Suspected of causing cancer.
  May cause damage to organs through prolonged or repeated exposure.

- **4.3 Indication of any immediate medical attention and special treatment needed**
  Product may produce physical injury if mishandled. Treatment of these injuries should be based on the blast and compression effects.
  If medical advice is needed, have product container or label at hand.
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.

For safety reasons unsuitable extinguishing agents: None.

5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.
Product may explode if burned in confined space. Individual cartridges may explode. Mass explosion of many cartridges at once is unlikely.

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.
Cool endangered receptacles with water spray.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

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.

Wear protective equipment. Keep unprotected persons away.
Remove persons from danger area.
Ensure adequate ventilation
Isolate area and prevent access.

6.2 Environmental precautions: No special measures required.

6.3 Methods and material for containment and cleaning up:
Pick up mechanically.
Dispose contaminated material as waste according to section 13.
Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
SECTION 7: Handling and storage

· 7.1 Precautions for safe handling
Use only outdoors or in a well-ventilated area.
Handle with care. Avoid jolting, friction and impact.

Information about fire - and explosion protection:
Protect from heat.
Emergency cooling must be available in case of nearby fire.

· 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.

Information about storage in one common storage facility:
Store away from foodstuffs.
Store away from flammable substances.

Further information about storage conditions:
Store in cool, dry conditions in well sealed receptacles.

· 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:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>PEL (USA)</th>
<th>REL (USA)</th>
<th>TLV (USA)</th>
<th>EL (Canada)</th>
<th>EV (Canada)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1314-13-2 zinc oxide</td>
<td>Long-term value: 15* 5** mg/m³</td>
<td>Short-term value: 10** mg/m³</td>
<td>Short-term value: 10* mg/m³</td>
<td>Short-term value: 10 mg/m³</td>
<td>Short-term value: 10 mg/m³</td>
</tr>
<tr>
<td></td>
<td>*=total dust **=respirable fraction and fume</td>
<td>Long-term value: 5* 5** mg/m³</td>
<td>Long-term value: 2* mg/m³</td>
<td>Long-term value: 2 mg/m³</td>
<td>Long-term value: 2 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling limit: 15* mg/m³</td>
<td>Ceiling limit: 15* mg/m³</td>
<td>Ceiling limit: 15* mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*=dust only **=fume</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67-72-1 hexachloroethane</td>
<td>Long-term value: 10 mg/m³</td>
<td>Short-term value: 10 mg/m³</td>
<td>Short-term value: 10 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Long-term value: 2 mg/m³</td>
<td>Long-term value: 2 mg/m³</td>
<td>Long-term value: 2 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*as respirable fraction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skin

67-72-1 hexachloroethane

PEL (USA) Long-term value: 10 mg/m³, 1 ppm

(Cont'd. on page 7)
### TRADE NAME: Military-Style Maximum Smoke HC Grenade

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Long-term value: 10 mg/m³, 1 ppm</th>
<th>Long-term value: 9,7 mg/m³, 1 ppm</th>
<th>Long-term value: 1 ppm</th>
<th>Long-term value: 1 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL (USA)</td>
<td>Skin; See Pocket Guide Apps. A and C</td>
<td>Skin</td>
<td>Skin</td>
<td>Skin; IARC 2B</td>
</tr>
<tr>
<td>TLV (USA)</td>
<td>Long-term value: 10* 5** mg/m³ as Al*Total dust**Respirable/pyro powd./welding f.</td>
<td>Long-term value: 1* mg/m³ as Al; *as respirable fraction</td>
<td>Long-term value: 1,0 mg/m³ respirable, as Al</td>
<td>Long-term value: 10 mg/m³ total dust</td>
</tr>
<tr>
<td>EL (Canada)</td>
<td>Long-term value: 1 ppm</td>
<td>Long-term value: 1 ppm</td>
<td>Long-term value: 1,0 mg/m³ respirable, as Al</td>
<td>Long-term value: 10 mg/m³ total dust</td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Long-term value: 1 ppm</td>
<td>Long-term value: 1 ppm</td>
<td>Long-term value: 1 ppm</td>
<td>Long-term value: 1 ppm</td>
</tr>
</tbody>
</table>

**7429-90-5 aluminium powder (stabilised)**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Long-term value: 15* 5** mg/m³</th>
<th>Long-term value: 10* 5** mg/m³ as Al*Total dust**Respirable/pyro powd./welding f.</th>
<th>Long-term value: 1* mg/m³ as Al; *as respirable fraction</th>
<th>Long-term value: 1,0 mg/m³ respirable, as Al</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL (USA)</td>
<td>*Total dust; **Respirable fraction</td>
<td>Long-term value: 10* 5** mg/m³ as Al*Total dust**Respirable/pyro powd./welding f.</td>
<td>Long-term value: 1* mg/m³ as Al; *as respirable fraction</td>
<td>Long-term value: 1,0 mg/m³ respirable, as Al</td>
</tr>
<tr>
<td>REL (USA)</td>
<td>Long-term value: 10* 5** mg/m³ as Al*Total dust**Respirable/pyro powd./welding f.</td>
<td>Long-term value: 1* mg/m³ as Al; *as respirable fraction</td>
<td>Long-term value: 1,0 mg/m³ respirable, as Al</td>
<td>Long-term value: 10 mg/m³ total dust</td>
</tr>
<tr>
<td>TLV (USA)</td>
<td>Long-term value: 1* mg/m³ as Al; *as respirable fraction</td>
<td>Long-term value: 1* mg/m³ as Al; *as respirable fraction</td>
<td>Long-term value: 1,0 mg/m³ respirable, as Al</td>
<td>Long-term value: 10 mg/m³ total dust</td>
</tr>
<tr>
<td>EL (Canada)</td>
<td>Long-term value: 10* 3** mg/m³ total dust;**respirable fraction</td>
<td>Long-term value: 10* 3** mg/m³ total dust;**respirable fraction</td>
<td>Long-term value: 10 mg/m³ total dust</td>
<td>Long-term value: 10 mg/m³ total dust</td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Long-term value: 5 mg/m³ aluminium-containing (as aluminium)</td>
<td>Long-term value: 5 mg/m³ aluminium-containing (as aluminium)</td>
<td>Long-term value: 5 mg/m³ aluminium-containing (as aluminium)</td>
<td>Long-term value: 5 mg/m³ aluminium-containing (as aluminium)</td>
</tr>
</tbody>
</table>

**7440-21-3 silicon**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Long-term value: 15* 5** mg/m³</th>
<th>Long-term value: 10* 5** mg/m³</th>
<th>Long-term value: 10 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL (USA)</td>
<td>*Total dust; **Respirable fraction</td>
<td>*Total dust; **Respirable fraction</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>REL (USA)</td>
<td>Long-term value: 10* 5** mg/m³ as Al*Total dust**Respirable/pyro powd./welding f.</td>
<td>Long-term value: 1* mg/m³ as Al; *as respirable fraction</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>TLV (USA)</td>
<td>Long-term value: 1* mg/m³ as Al; *as respirable fraction</td>
<td>Long-term value: 1* mg/m³ as Al; *as respirable fraction</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>EL (Canada)</td>
<td>Long-term value: 10* 3** mg/m³ total dust;**respirable fraction</td>
<td>Long-term value: 10* 3** mg/m³ total dust;**respirable fraction</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Long-term value: 5 mg/m³ aluminium-containing (as aluminium)</td>
<td>Long-term value: 5 mg/m³ aluminium-containing (as aluminium)</td>
<td>Long-term value: 5 mg/m³ aluminium-containing (as aluminium)</td>
</tr>
</tbody>
</table>

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.
8.2 Exposure controls
- 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.
Wash hands before breaks and at the end of work.
- Respiratory protection:
Suitable respiratory protective device recommended.
Wear positive pressure NIOSH or European EN149 vapor respirators when deploying product in large quantities.
- Protection of hands:
Wear gloves for the protection against mechanical hazards according to NIOSH or EN 388.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
- 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.
No further relevant information available.

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Solid metal container containing solid contents.
  - Colour: According to product specification
  - Odour: Odourless
  - Odour threshold: Not determined.
Trade name: Military-Style Maximum Smoke HC Grenade

(Cont'd. from page 8)

- 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: Heating may cause an explosion.

- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.

- 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.

- 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 strong acids and alkali.
  Reacts violently with oxidising agents.

- 10.4 Conditions to avoid Sources of ignition, open flame, incompatible materials.

- 10.5 Incompatible materials: Oxidizers

(Cont'd. on page 10)
10.6 Hazardous decomposition products:
Carbon monoxide and carbon dioxide
Nitrogen oxides
Sulphur oxides (SOx)

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>1314-13-2 zinc oxide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 &gt; 5000 mg/kg (rat)</td>
</tr>
</tbody>
</table>

Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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 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.

Acute effects (acute toxicity, irritation and corrosivity): Danger of blast or crush-type injuries.
Repeate dose toxicity: Possible risk of irreversible effects.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Suspected of causing cancer.
- 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 May cause damage to organs through prolonged or repeated exposure.
- 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.
- Persistence and degradability: No further relevant information available.
- Bioaccumulative potential: May be accumulated in organism.
- Mobility in soil: No further relevant information available.
- Ecotoxic effects:
- Remark: Harmful to fish

(Cont'd. on page 11)
Trade name: Military-Style Maximum Smoke HC Grenade

- Additional ecological information:
  - General notes:
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary
    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.

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.
    After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.
    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
  - UN0303

- 14.2 UN proper shipping name
  - DOT
    AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge
  - ADR
    0303 AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge, 0303
  - IMDG
    AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge, 0303, MARINE POLLUTANT
  - IATA
    AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge,
### Trade name: Military-Style Maximum Smoke HC Grenade

#### 14.3 Transport hazard class(es)
- **DOT, IATA**
  - Class: 1.4
  - Label: 1.4G

- **ADR, IMDG**
  - Class: 1.4
  - Label: 1.4G

#### 14.4 Packing group
- **DOT, IMDG, IATA**
  - Not Regulated

#### 14.5 Environmental hazards:
- **Marine pollutant:** No
- **Special marking (ADR):** Symbol (fish and tree)

#### 14.6 Special precautions for user
- **EMS Number:** F-B,S-X
- **Segregation groups:** Chlorates

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

#### Transport/Additional information:
- **IMDG**
  - Limited quantities (LQ): 0
  - Excepted quantities (EQ): Code: E0
    - Not permitted as Excepted Quantity

- **UN "Model Regulation":**
  - UN 0303 AMMUNITION, SMOKE WITH OR WITHOUT BURSTER, EXPPELLING CHARGE OR PROPELLING CHARGE, 0303, 1.4G, ENVIRONMENTALLY HAZARDOUS

(Cont'd. on page 13)
# 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):**
        | Chemical | CAS Number |
        |----------|------------|
        | zinc oxide | 1314-13-2 |
        | hexachloroethane | 67-72-1 |
        | aluminium powder (stabilised) | 7429-90-5 |
        | potassium nitrate | 7757-79-1 |
    - **TSCA (Toxic Substances Control Act):**
      All ingredients are listed.
    - **Proposition 65 (California):**
      - **Chemicals known to cause cancer:**
        Present in trace quantities.
        | Chemical | CAS Number |
        |----------|------------|
        | hexachloroethane | 67-72-1 |
        | lead dithiocyanate | 592-87-0 |
        | barium chromate | 10294-40-3 |
        | lead chromate | 7758-97-6 |
      - **Chemicals known to cause reproductive toxicity for females:**
        | Chemical | CAS Number |
        |----------|------------|
        | barium chromate | 10294-40-3 |
        | lead chromate | 7758-97-6 |
      - **Chemicals known to cause reproductive toxicity for males:**
        | Chemical | CAS Number |
        |----------|------------|
        | barium chromate | 10294-40-3 |
        | lead chromate | 7758-97-6 |
      - **Chemicals known to cause developmental toxicity:**
        Present in trace quantities.
        | Chemical | CAS Number |
        |----------|------------|
        | barium chromate | 10294-40-3 |
        | lead chromate | 7758-97-6 |
    - **Carcinogenic Categories**
      - **EPA (Environmental Protection Agency)**
        | Chemical | CAS Number | Category |
        |----------|------------|----------|
        | zinc oxide | 1314-13-2 | D, I, II |
        | hexachloroethane | 67-72-1 | L |
      - **IARC (International Agency for Research on Cancer)**
        | Chemical | CAS Number | Category |
        |----------|------------|----------|
        | hexachloroethane | 67-72-1 | 2B |
      - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
        | Chemical | CAS Number |
        |----------|------------|
        | hexachloroethane | 67-72-1 |
· Canada
  · Canadian Domestic Substances List (DSL)
    All ingredients are listed.
  · Canadian Ingredient Disclosure list (limit 0.1%)
    None of the ingredients are listed.
  · Canadian Ingredient Disclosure list (limit 1%)
    1314-13-2 zinc oxide
    67-72-1 hexachloroethane
    7429-90-5 aluminium powder (stabilised)

· Directive 2012/18/EU
  · Named dangerous substances - ANNEX I
    None of the ingredients are listed.
  · Qualifying quantity (tonnes) for the application of upper-tier requirements
    200 t
  · 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
  H201 Explosive; mass explosion hazard.
  H228 Flammable solid.
  H250 Catches fire spontaneously if exposed to air.
  H261 In contact with water releases flammable gases.
  H272 May intensify fire; oxidiser.
  H351 Suspected of causing cancer.
  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.

· 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)
Trade name: Military-Style Maximum Smoke HC Grenade

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- 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
- Flam. Sol. 1: Flammable solids, Hazard Category 1
- Flam. Sol. 2: Flammable solids, Hazard Category 2
- Pyr. Sol. 1: Pyrophoric Solids, Hazard Category 1
- Water-react. 2: Substances and Mixtures which, in contact with water, emit flammable gases, Hazard Category 2
- Ox. Sol. 2: Oxidising Solids, Hazard Category 2
- Carc. 2: Carcinogenicity, Hazard Category 2
- STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
- Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Sources

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