Safety Data Sheet
acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: September 19, 2017  Revision: September 19, 2017

1 Identification

- Product identifier
  - Trade name: CN 40mm Munitions Warning/Signaling - 50 Meters
  - Product code: 6028CN (1196138)

- Recommended use and restriction on use
  - Recommended use: Crowd Control Device
  - Restrictions on use: Contact manufacturer/supplier

- Details of the supplier of the Safety Data Sheet
- Manufacturer/Supplier:
  - Safariland, LLC
  - 13386 International Parkway
  - Jacksonville, FL 32218
  - Customer Care (800) 347-1200
- Information department: Customer Care Department
- Emergency telephone number:
  - ChemTel Inc.
  - (800)255-3924  (North America)
  - +1 (813)248-0585 (International)

2 Hazard(s) identification

- Classification of the substance or mixture
  - Expl. 1.4  H204  Fire or projection hazard.
  - Acute Tox. 3  H301  Toxic if swallowed.
  - Acute Tox. 3  H311  Toxic in contact with skin.
  - Acute Tox. 2  H330  Fatal if inhaled.
  - Skin Irrit. 2  H315  Causes skin irritation.
  - Eye Dam. 1  H318  Causes serious eye damage.
  - Resp. Sens. 1  H334  May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  - Skin Sens. 1  H317  May cause an allergic skin reaction.

- Label elements
- GHS label elements
  - The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms:
  - GHS01 GHS05 GHS06 GHS08

- Signal word: Danger
- Hazard statements:
  - H204  Fire or projection hazard.
  - H301+H311  Toxic if swallowed or in contact with skin.
  - H330  Fatal if inhaled.
  - H315  Causes skin irritation.

(Cont'd. on page 2)
Trade name: CN 40mm Munitions Warning/Signaling - 50 Meters

H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.

Precautionary statements:
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P250 Do not subject to grinding/shock/friction.
P280 Wear eye protection / face protection.
P284 In case of inadequate ventilation wear respiratory protection.
P332+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P370+P380 In case of fire: Evacuate area.
P372 Explosion risk in case of fire.
P373 DO NOT fight fire when fire reaches explosives.

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.

Other hazards

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 they are dealing with a powerful force and that various devices and methods have been developed to assist them in directing this force. They should realize that this force, if misdirected, may either kill or injure both themselves and their 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, they should consult the manufacturer before use.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Components:

<table>
<thead>
<tr>
<th>7778-74-7</th>
<th>potassium perchlorate</th>
<th>10-20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ox. Sol. 1, H271</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 4, H302</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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| 7757-79-1 | potassium nitrate | Ox. Sol. 2, H272 | 10-20% |
| 532-27-4  | 2-chloroacetophenone | Acute Tox. 2, H300; Acute Tox. 2, H310; Acute Tox. 2, H330 | Resp. Sens. 1, H334 |
|           |                   | Eye Dam. 1, H318 | Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 |
| 1309-48-4 | magnesium oxide | 10-20% |
| 7439-95-4 | magnesium powder (pyrophoric) | Pyr. Sol. 1, H250; Water-react. 1, H260 | 2.5-5% |
| 7704-34-9 | sulfur | Skin Irrit. 2, H315 | 2.5-5% |
| 7429-90-5 | aluminium powder (pyrophoric) | Pyr. Sol. 1, H250; Water-react. 2, H261 | 2.5-5% |
| 7631-86-9 | silicon dioxide | 2.5-5% |
| 9004-70-0 | Nitrocellulose, colloided, granular | Expl. 1.1, H201 | 1-2.5% |

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

- Notable Trace Components (< 0.1% w/w)

| 122-39-4 | diphenylamine | Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 | STOT RE 2, H373 |
| 12403-82-6 | dihydroxy[styphnato(2-)]dilead / lead styphnate | Unst. Expl., H200 | Acute Tox. 2, H300; Acute Tox. 2, H330 |
|           |                     | Carc. 1B, H350; Rep. 2, H361; STOT RE 2, H373 |

4 First-aid measures

- 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; consult doctor in case of complaints.
    - 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.
    - If skin irritation continues, consult a doctor.
    - 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. If symptoms persist, consult a doctor.

**After swallowing:**
Unlikely route of exposure.
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.

**Most important symptoms and effects, both acute and delayed:**
- Asthma attacks
- Irritant to skin and mucous membranes.
- Causes eye irritation.
- Breathing difficulty
- Coughing
- Gastric or intestinal disorders when ingested.
- Nausea in case of ingestion.
- Allergic reactions

**Danger:**
- Danger of blast or crush-type injuries.
- Fatal if inhaled.
- Toxic if swallowed.
- Harmful in contact with skin.
- Danger of impaired breathing.
- Danger of disturbed cardiac rhythm.
- Danger of pulmonary edema.
- Repeated exposures may result in skin and/or respiratory sensitivity.

**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.

### 5 Fire-fighting measures

- **Extinguishing media**
  - Suitable extinguishing agents:
    - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - For safety reasons unsuitable extinguishing agents: None.
  - 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.

- **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.
  - 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.

6 Accidental release measures

- 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.
- 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.
- 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 item 13.
  Clean the affected area carefully; suitable cleaners are:
  Warm water and cleansing agent
- 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.

7 Handling and storage

- Handling
  - Precautions for safe handling:
    Keep away from heat and direct sunlight.
    Handle with care. Avoid jolting, friction and impact.
  - Information about protection against explosions and fires:
    Fire or projection hazard.
    Protect from heat.
    Substance/product can reduce the ignition temperature of flammable substances.
    Emergency cooling must be available in case of nearby fire.
    Keep respiratory protective device available.
- 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 oxidizing agents.
Store away from flammable substances.

Further information about storage conditions: Store in dry conditions.
Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Substance</th>
<th>PEL (USA)</th>
<th>REL (USA)</th>
<th>TLV (USA)</th>
<th>EL (Canada)</th>
<th>EV (Canada)</th>
<th>LMPE (Mexico)</th>
</tr>
</thead>
<tbody>
<tr>
<td>532-27-4 2-chloroacetophenone</td>
<td>Long-term value: 0.3 mg/m³, 0.05 ppm</td>
<td>Long-term value: 0.3 mg/m³, 0.05 ppm</td>
<td>Long-term value: 0.32 mg/m³, 0.05 ppm</td>
<td>Long-term value: 0.05 ppm</td>
<td>Long-term value: 0.32 mg/m³, 0.05 ppm</td>
<td>Long-term value: 0.05 ppm</td>
</tr>
<tr>
<td>1309-48-4 magnesium oxide</td>
<td>Long-term value: 15* mg/m³, fume; *total particulate</td>
<td>Long-term value: 10* mg/m³, *as inhalable fraction</td>
<td>Short-term value: 10** mg/m³, Long-term value: 10* 3** mg/m³, *as inhalable fume; **respirable dust and fume</td>
<td>Long-term value: 1.0 mg/m³, respirable, as Al</td>
<td>Long-term value: 10 mg/m³, inhalable</td>
<td>Long-term value: 10* mg/m³, A4, *fracción respirable</td>
</tr>
<tr>
<td>7429-90-5 aluminium powder (pyrophoric)</td>
<td>Long-term value: 15*, 5** mg/m³, *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>
<td>Long-term value: 5 mg/m³, aluminium-containing (as aluminium)</td>
<td></td>
</tr>
</tbody>
</table>
### Exposure controls
- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    The usual precautionary measures for handling chemicals should be followed. 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.
    - **Engineering controls:** Provide adequate ventilation.
  - **Breathing equipment:**
    Respiratory protection required.
    Wear positive pressure NIOSH or European EN149 vapor respirators when deploying product in large quantities.
- **Protection of hands:**
  Gloves not required under normal conditions of use. Wear protective gloves to handle contents of damaged or leaking units.
- **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.
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- **Eye protection:**
  - Safety glasses

- **Body protection:** Protective work clothing

- **Limitation and supervision of exposure into the environment**
  No 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 relevant information available.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **Appearance:**
    - Form: Solid metal container containing liquid and solid contents.
    - Color: According to product specification
    - Odor: Odorless
    - Odor threshold: Not determined.
  - **pH-value:** Not applicable.
  - **Melting point/Melting range:** Not determined.
  - **Boiling point/Boiling range:** Not determined.
  - **Flash point:** Not applicable.
  - **Flammability (solid, gaseous):** Not determined.
  - **Auto-ignition temperature:** Not determined.
  - **Decomposition temperature:** Not determined.
  - **Danger of explosion:** Heating may cause an explosion.
    Risk of explosion by shock, friction, fire or other sources of ignition.
  - **Explosion limits**
    - Lower: Not determined.
    - Upper: Not determined.
  - **Vapor pressure:** Not applicable.
  - **Density:** Not determined.
  - **Relative density:** Not determined.
  - **Vapor density:** Not applicable.
  - **Evaporation rate:** Not applicable.
  - **Solubility in / Miscibility with Water:** Insoluble.
### 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
  - **Thermal decomposition / conditions to be avoided:**
    No decomposition if used and stored according to specifications.
  - **Possibility of hazardous reactions**
    Toxic fumes may be released if heated above the decomposition point.
    Can react violently with oxygen rich (oxidizing) material. Danger of Explosion.
    Reacts with flammable substances.
- **Conditions to avoid**
  Store away from oxidizing agents.
  Keep ignition sources away - Do not smoke.
  Cartridge may detonate if case is punctured or severely damaged.
- **Incompatible materials**
  No relevant information available.
- **Hazardous decomposition products**
  - Carbon monoxide and carbon dioxide
  - Toxic metal oxide smoke
  - Chlorine compounds
  - Nitrogen oxides

### 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity:**
    - **LD/LC50 values that are relevant for classification:**
      - 532-27-4 2-chloroacetophenone
        - Oral LD50 50 mg/kg (rat)
  - **Primary irritant effect:**
    - **On the skin:** Irritant to skin and mucous membranes.
    - **On the eye:** Strong irritant with the danger of severe eye injury.
    - **Sensitization:** May cause sensitisation by inhalation and skin contact.
  - **IARC (International Agency for Research on Cancer):**
    - 7631-86-9 | silicon dioxide | 3
  - **NTP (National Toxicology Program):**
    None of the ingredients are listed.
OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

Probable route(s) of exposure:
- Ingestion.
- Inhalation.
- Eye contact.
- Skin contact.

Acute effects (acute toxicity, irritation and corrosivity):
- Danger of blast or crush-type injuries.
- Fatal if inhaled.
- Causes serious eye damage.
- Toxic if swallowed or in contact with skin.
- Irritating to skin.

Repeated dose toxicity:
- Repeated exposures may result in skin and/or respiratory sensitivity.

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.

Toxicity
- Aquatic toxicity: No relevant information available.
- Persistence and degradability: No relevant information available.
- Bioaccumulative potential: No relevant information available.
- Mobility in soil: No relevant information available.

Ecotoxicological effects:
- Remark: Harmful to fish

Additional ecological information
- General notes:
  - Do not allow product to reach ground water, water course or sewage system.
  - Danger to drinking water if even small quantities leak into the ground.
  - Harmful to aquatic organisms
  - Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

Other adverse effects: No relevant information available.
13 Disposal considerations

- Waste treatment methods
  - **Recommendation:**
    Must not be disposed of 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 packagings
  - **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
  - DOT, ADR, IMDG: UN0301
  - IATA: FORBIDDEN

- **UN proper shipping name**
  - DOT, IMDG: Ammunition Tear-producing with burster, expelling charge or propelling charge
  - ADR: UN0301, Ammunition Tear-producing with burster, expelling charge or propelling charge, 1.4G, II
  - IATA: FORBIDDEN

- **Transport hazard class(es)**
  - **DOT**
    - Class: 1.4
    - Label: 1.4G+6.1+8
  - **ADR**
    - Class: 1.4
    - Label: 1.4G+6.1+8
  - **IMDG**
    - Class: 1.4

(Cont'd. on page 12)
**Trade name:** CN 40mm Munitions Warning/Signaling - 50 Meters

<table>
<thead>
<tr>
<th>· Label</th>
<th>1.4G+6.1+8</th>
</tr>
</thead>
<tbody>
<tr>
<td>· IATA</td>
<td></td>
</tr>
</tbody>
</table>

| · Class   | FORBIDDEN   |
| · Label   | FORBIDDEN   |

| · Packing group | · DOT, ADR, IMDG | II |
| · IATA          |                | FORBIDDEN |

| · Environmental hazards | · Marine pollutant: |
|                         | No |

| · Special precautions for user | · EMS Number: |
|                              | F-A,S-Q |
| · Segregation groups         | Chlorates |

| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **United States (USA)**
  - **SARA**
    - **Section 302 (extremely hazardous substances):** None of the ingredients are listed.
    - **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
      - 7429-90-5 aluminium powder (pyrophoric)
  - **TSCA (Toxic Substances Control Act)**
    - All ingredients are listed.
  - **Proposition 65 (California)**
    - **Chemicals known to cause cancer:** None of the ingredients are listed.
    - **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.

None of the ingredients are listed.

· Carcinogenic categories

- EPA (Environmental Protection Agency):
  7778-74-7 potassium perchlorate [NL]

- IARC (International Agency for Research on Cancer):
  7631-86-9 silicon dioxide 3

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

None of the ingredients are listed.

- Canadian Domestic Substances List (DSL):

All ingredients are listed.

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.

- Date of preparation / last revision September 19, 2017 / -

- Abbreviations and acronyms:
  ADR: 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
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bio-accumulable, Toxique
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety and Health
  OSHA: Occupational Safety & Health Administration
  Expl. 1.1: Explosives – Division 1.1
  Expl. 1.4: Explosives – Division 1.4
  Pyr. Sol. 1: Pyrophoric solids – Category 1
  Water-react. 1: Substances and mixtures which in contact with water emit flammable gases – Category 1
  Water-react. 2: Substances and mixtures which in contact with water emit flammable gases – Category 2
  Ox. Sol. 1: Oxidizing solids – Category 1
  Ox. Sol. 2: Oxidizing solids – Category 2
  Acute Tox. 2: Acute toxicity – Category 2
  Acute Tox. 3: Acute toxicity – Category 3
  Acute Tox. 4: Acute toxicity – Category 4
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Dam. 1: Serious eye damage/eye irritation – Category 1
  Resp. Sens. 1: Respiratory sensitisation – Category 1
  Skin Sens. 1: Skin sensitisation – Category 1
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Sources

SDS Prepared by:
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