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

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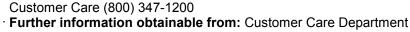
# SECTION 1: Identification of the substance/mixture and of the company/undertaking

- · 1.1 Product identifier
- · Trade name: Defense Technology 40MM Ground Marker CN 300 Meters
- · Article number: 6681
- · 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

Explosive product.

- · 1.3 Details of the supplier of the Safety Data Sheet
- · Manufacturer/Supplier:

Safariland, LLC 13386 International Parkway Jacksonville, FL 32218





ChemTel Inc.

(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. 1 H330 Fatal if inhaled.



health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



Eye Dam. 1 H318 Causes serious eye damage.

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Acute Tox. 4 H312 Harmful in contact with skin.

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation.

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

#### · 2.2 Label elements

## · Labelling 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.

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

#### · Hazard pictograms



This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS).









GHS01 GHS05 GHS06 GHS08

#### Signal word Danger

## · Hazard-determining components of labelling:

2-chloroacetophenone

potassium chlorate

## · 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 Toxic if swallowed.

H312 Harmful in contact with skin.

H330 Fatal 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.

H335 May cause respiratory irritation.

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

smokina.

P250 Do not subject to grinding/shock/friction.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P284 [In case of inadequate ventilation] wear respiratory protection.

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|                   | (Cont'd. from page 2)   |
|-------------------|---|
| P264              | Wash thoroughly after handling.   |
| P280              | Wear eye protection / face protection.  |
| P240              | Ground/bond container and receiving equipment.  |
| P273              | Avoid release to the environment.   |
| P270              | Do not eat, drink or smoke when using this product.   |
| P271              | Use only outdoors or in a well-ventilated area.   |
| P272              | Contaminated work clothing should not be allowed out of the workplace.                        |
| P301+P310         | IF SWALLOWED: Immediately call a POISON CENTER/ doctor.                                       |
|                   | B IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if      |
| 1 000 1 001 1 000 | present and easy to do. Continue rinsing.   |
| P320              | Specific treatment is urgent (see on this label).   |
| P373              | DO NOT fight fire when fire reaches explosives.   |
| P370+P380         | In case of fire: Evacuate area.   |
| P342+P311         | If experiencing respiratory symptoms: Call a POISON CENTER/doctor.                            |
| P304+P340         | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                    |
| P372              | Explosion risk in case of fire.   |
| P333+P313         | If skin irritation or rash occurs: Get medical advice/attention.                              |
| P330              | Rinse mouth.  |
| P302+P352         | IF ON SKIN: Wash with plenty of water.  |
| P362+P364         | Take off contaminated clothing and wash it before reuse.                                      |
|                   |   |
|                   |   |
| P401<br>P405      | Store in accordance with local/regional/national/international regulations.  Store locked up. |

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international P501

regulations.

· Additional information:

Can become highly flammable in use.

NFPA ratings (scale 0 - 4)



Health = 4 Fire = 0

Reactivity = 0

· HMIS-ratings (scale 0 - 4)



\*3 Health = \*3 Fire = 0

- \* Indicates a long term health hazard from repeated or prolonged exposures.
- · HMIS Long Term Health Hazard Substances

None of the ingredients are listed.

- · 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

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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.

| Dangerous components:   |   |        |
|---|---|--------|
| CAS: 532-27-4<br>EINECS: 208-531-1                                | 2-chloroacetophenone  | 20-40% |
| CAS: 3811-04-9<br>EINECS: 223-289-7<br>Index number: 017-004-00-3 | potassium chlorate  Ox. Sol. 1, H271 Aquatic Chronic 2, H411 Acute Tox. 4, H302; Acute Tox. 4, H332 | 20-40% |
| CAS: 9004-70-0<br>EC number: 603-037-0                            | Nitrocellulose, colloided, granular Expl. 1.1, H201   | 10-20% |
| CAS: 57-50-1<br>EINECS: 200-334-9                                 | sucrose, pure substance with a Community workplace exposure limit                                   | 10-20% |
| CAS: 598-62-9<br>EINECS: 209-942-9                                | manganese carbonate substance with a Community workplace exposure limit                             | 10-20% |
| CAS: 7757-79-1<br>EINECS: 231-818-8                               | potassium nitrate  Ox. Sol. 2, H272   | 1-5%   |
| CAS: 7440-21-3<br>EINECS: 231-130-8                               | silicon  Flam. Sol. 2, H228   | ≤ 2,5% |
| CAS: 7429-90-5<br>EINECS: 231-072-3<br>Index number: 013-001-00-6 | aluminium powder (pyrophoric)  Pyr. Sol. 1, H250; Water-react. 2, H261                              | ≤ 2,5% |
| CAS: 557-04-0<br>EINECS: 209-150-3                                | magnesium distearate, pure substance with a Community workplace exposure limit                      | ≤ 2,5% |

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

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

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|                            | (Cont'd. from page 4)                                      |
|----------------------------|--|
| CAS: 122-39-4              | diphenylamine  |
| EINECS: 204-539-4          | Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 |
| Index number: 612-026-00-5 |  |
|                            | Aquatic Acute 1, H400; Aquatic Chronic 1, H410             |
| CAS: 12403-82-6            | dihydroxy[styphnato(2-)]dilead / lead styphnate            |
| EINECS: 235-642-2          | ♦ 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             |

#### **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

Irritant to skin and mucous membranes.

Irritant to eyes.

Breathing difficulty

Coughing

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

Allergic reactions

#### · Hazards

Danger of blast or crush-type injuries.

Danger of impaired breathing.

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Danger of disturbed cardiac rhythm.

Danger of pulmonary oedema.

Danger of convulsion.

#### 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.

## **SECTION 5: Firefighting measures**

- 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- For safety reasons unsuitable extinguishing agents: None.
- · 5.2 Special hazards arising from the substance or mixture

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.

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.

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.

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Dispose contaminated material as waste according to section 13.

Clean the affected area carefully; suitable cleaners are:

Warm water and cleansing agent

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

Keep away from heat and direct sunlight.

Handle with care. Avoid jolting, friction and impact.

· Information about fire - and explosion protection:

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.

- · 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   |

|           | Long-term value: 0,3 mg/m³, 0,05 ppm  |
|-----------|---------------------------------------|
| REL (USA) | Long-term value: 0,3 mg/m³, 0,05 ppm  |
| TLV (USA) | Long-term value: 0,32 mg/m³, 0,05 ppm |

EL (Canada) Long-term value: 0,05 ppm

ls

EV (Canada) Long-term value: 0,32 mg/m³, 0,05 ppm

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|                    |   | (Cont'd. from pa |
|--------------------|---|------------------|
| 57-50-1 sucre      | • •   |                  |
| PEL (USA)          | Long-term value: 15* 5** mg/m³ *total dust **respirable fraction          |                  |
| REL (USA)          | Long-term value: 10* 5** mg/m³ *total dust **respirable fraction          |                  |
| TLV (USA)          | Long-term value: 10 mg/m³   |                  |
| EL (Canada)        | Long-term value: 10 mg/m³   |                  |
| EV (Canada)        | Long-term value: 10 mg/m³ total dust                                      |                  |
| 598-62-9 mar       | nganese carbonate   |                  |
| PEL (USA)          | Ceiling limit: 5 mg/m³ as Mn  |                  |
| REL (USA)          | Short-term value: 3 mg/m³<br>Long-term value: 1 mg/m³<br>as Mn            |                  |
| TLV (USA)          | Long-term value: 0,02* 0,1* mg/m³ as Mn; *respirable **inhalable fraction |                  |
| EL (Canada)        | Long-term value: 0,2 mg/m³<br>as Mn; R                                    |                  |
| 7440-21-3 sil      | con   |                  |
| PEL (USA)          | Long-term value: 15* 5** mg/m³ *total dust **respirable fraction          |                  |
| REL (USA)          | Long-term value: 10* 5** mg/m³ *total dust **respirable fraction          |                  |
| TLV (USA)          | TLV withdrawn   |                  |
| EL (Canada)        | Long-term value: 10 mg/m³   |                  |
| EV (Canada)        | Long-term value: 10 mg/m³ total dust                                      |                  |
| 7429-90-5 alu      | ıminium powder (pyrophoric)   |                  |
| PEL (USA)          | Long-term value: 15*; 15** mg/m³ *Total dust; ** Respirable fraction      |                  |
| REL (USA)          | Long-term value: 10* 5** mg/m³ *Total dust **Respirable fraction          |                  |
| TLV (USA)          | Long-term value: 1* mg/m³ as Al; *as respirable fraction                  |                  |
| EL (Canada)        | Long-term value: 1,0 mg/m³ metal and insoluble compdounds, respirable     |                  |
| EV (Canada)        | Long-term value: 5 mg/m³ aluminium-containing (as aluminium)              |                  |
| 557-04-0 mag       | gnesium distearate, pure  |                  |
| TLV (USA)          | Long-term value: 10 mg/m³   |                  |
| <b>DNELs</b> No fu | rther relevant information available.                                     |                  |
| DNECo No fu        | rther relevant information available.                                     |                  |

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- · Additional information: The lists valid during the making were used as basis.
- · 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.

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:

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.

· 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 liquid and solid contents.

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**Colour:** According to product specification

Odour:OdourlessOdour threshold:pH-value:Not applicable.

· Change in condition

Melting point/Melting range:
Boiling point/Boiling range:
Undetermined.

Flash point:
Flammability (solid, gaseous):
Auto/Self-ignition temperature:
Not determined.

Not determined.

Not determined.

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

• **Danger of explosion:** Heating may cause an explosion.

Risk of explosion by shock, friction, fire or other sources of

ignition.

· Explosion limits:

Lower:
Upper:
Not determined.
Not applicable.

Density:
Relative density
Vapour density
Vapour density
Evaporation rate
Not determined.
Not applicable.
Not applicable.
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

Toxic fumes may be released if heated above the decomposition point. Can react violently with oxygen rich (oxidising) material. Danger of Explosion.

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Reacts with flammable substances.

· 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.

Harmful in contact with skin.

Fatal if inhaled.

LD/LC50 values relevant for classification:

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

Oral LD50 50 mg/kg (rat)

#### 3811-04-9 potassium chlorate

Oral LD50 1870 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 cansister 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.

- Acute effects (acute toxicity, irritation and corrosivity): Danger through skin adsorption.
- 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 (carcinogenity, 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.

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· Reproductive toxicity

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

STOT-single exposure

May cause respiratory irritation.

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.
- · Ecotoxical 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.

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.

- 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. 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 local official regulations.

## **SECTION 14: Transport information**

- · 14.1 UN-Number
- · DOT, ADR, IMDG, IATA

UN0301

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14.2 UN proper shipping name

DOT, IMDG Ammunition Tear-producing with burster, expelling

charge or propelling charge

· ADR 0301, Ammunition Tear-producing with burster,

expelling charge or propelling charge,

**ENVIRONMENTALLY HAZARDOUS** 

**FORBIDDEN** 

· IATA · 14.3 Transport hazard class(es)

· DOT



· Class 1.4

· Label 1.4G+6.1+8

· ADR



· Class 1.4

1.4G+6.1+8 · Label

· IMDG



· Class 1.4

· Label 1.4G+6.1+8

· IATA

· Class 1.4G

· Label

14.4 Packing group

· DOT, ADR, IMDG

·IATA Not Regulated

· 14.5 Environmental hazards:

· Marine pollutant:

Special marking (ADR): Symbol (fish and tree)

· 14.6 Special precautions for user Not applicable. · EMS Number: F-A,S-Q Segregation groups Chlorates

· 14.7 Transport in bulk according to Annex II of

Marpol and the IBC Code Not applicable.

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UN0301, 0301, ENVIRONMENTALLY HAZARDOUS,

1.4G (6.1+8), II

## **SECTION 15: Regulatory information**

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

UN "Model Regulation":

- ·SARA
- Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

532-27-4 2-chloroacetophenone

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65 (California):
- · Chemicals known to cause cancer:

None of the ingredients is 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)

598-62-9 manganese carbonate

D

· IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)

532-27-4 2-chloroacetophenone 57-50-1 sucrose, pure

A4 A4

7429-90-5 aluminium powder (pyrophoric)

A4

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.

Not all ingredients listed.

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

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· Canadian Ingredient Disclosure list (limit 0.1%)

598-62-9 manganese carbonate

· Canadian Ingredient Disclosure list (limit 1%)

532-27-4 2-chloroacetophenone

Other regulations, limitations and prohibitive regulations

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products 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.

H271 May cause fire or explosion; strong oxidiser.

H272 May intensify fire; oxidiser.

H300 Fatal if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H332 Harmful if inhaled.

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

H335 May cause respiratory irritation.

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

ACGIH: American Conference of Governmental Industrial Hygienists

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)

WHMIS: Workplace Hazardous Materials Information System (Canada)

(Cont'd. on page 16)

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

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DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent Expl. 1.1: Explosives, Division 1.1

Expl. 1.4: Explosives, Division 1.4

Flam. Sol. 2: Flammable solids, Hazard Category 2 Pyr. Sol. 1: Pyorphoric Solids, Hazard Category 1

Water-react. 2: Substances and Mixtures which, in contact with water, emit flammable gases, 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

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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