

Cartridge 5.56 mm FX® GEN II Marking TOXFREE®

SECTION 1. IDENTIFICATION

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|---|--|
| Product Identifier | Cartridge 5.56 mm FX® GEN II Marking TOXFREE® |
| Other Means of Identification | Revision 2 |
| Product Family | Cartridge, 5.56 mm |
| Manufacturer/Supplier Identifier | General Dynamics - Ordnance and Tactical Systems - Canada Inc, 5, Montée des Arsenaux, Repentigny, Québec, J5Z 2P4, 450-581-3080 |
| Emergency Phone No. | MD-UN, 1-888-922-3330, (Canada/U.S.A) |
| SDS No. | 0326 |
| Date of Preparation | décembre 15, 2021 |

SECTION 2. HAZARD IDENTIFICATION

Classification

Explosive - Division 1.4; Reproductive toxicity - Category 2; Aquatic hazard (Acute) - Category 3

Label Elements



Signal Word:
Warning

Hazard Statement(s):

Fire or projection hazard.
Suspected of damaging fertility or the unborn child.
Harmful to aquatic life.

Prevention:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep only in original packaging.
Do not subject to grinding, shock, or friction.
Wear face protection. protective gloves
Do not handle until all safety precautions have been read and understood.
Avoid release to the environment.

Response:

In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
IF exposed or concerned: Get medical advice/attention.

Storage:

| | |
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Store in accordance with local, regional, national and international regulations.

Dispose of contents and container in accordance with local, regional, national and international regulations.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

This product is an explosive article which is composed of a finished cartridge containing various components that are sealed completely within the cartridge. Under normal conditions of handling, no exposure to any of the harmful components inside the cartridge is expected and no health effects are generally expected as supplied.

When cartridges are fired, or otherwise discharged, gases, fumes and projectiles may be formed. These gases, fumes and projectiles may contain trace amounts of the components inside the cartridges. These gases, fumes and projectiles may be irritating to the eyes, skin and respiratory tract.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

| Chemical Name | CAS No. | % | Other Identifiers |
|------------------------------|------------|-------|-------------------|
| Copper | 7440-50-8 | 45-70 | |
| Zinc metal | 7440-66-6 | 10-30 | |
| Poly(oxymethylene) | 9002-81-7 | 10-30 | Acetal |
| Diazodinitrophenol | 87-31-0 | trace | DDNP |
| Polypropylene | 9003-07-0 | 0.1-1 | PP |
| Various Dye | | trace | |
| Sodium lauryl ether sulfate | 68891-38-3 | 0.1-1 | SLES |
| 1,2-Propylene glycol | 57-55-6 | trace | |
| Barium sulfate | 7727-43-7 | 0.1-1 | |
| Nitrocellulose | 9004-70-0 | 0.1-1 | NC |
| Potassium nitrate | 7757-79-1 | trace | |
| Nitroglycerin | 55-63-0 | trace | NG |
| Bismuth oxide | 1304-76-3 | 0.1-1 | |
| Tetrazene | 54410-57-0 | trace | |
| Ethyl centralite | 85-98-3 | trace | |
| Diphenylamine | 122-39-4 | trace | |
| Graphite (natural) | 7782-42-5 | trace | |
| Dibutyl phthalate | 84-74-2 | trace | |
| Polyester adipate | | trace | |
| Rosin | 8050-09-7 | trace | |
| N-Nitrosodiphenylamine | 86-30-6 | trace | |
| Potassium sulfate | 7778-80-5 | trace | |
| Calcium carbonate | 471-34-1 | trace | |
| Aluminum powder, uncoated | 7429-90-5 | trace | |
| 2,4-Dinitrotoluene | 121-14-2 | trace | DNT |
| Arkadite II | 13114-72-2 | trace | |
| Ethyl acetate | 141-78-6 | trace | |
| Tin dioxide | 18282-10-5 | trace | |
| Bismuth | 7440-69-9 | trace | |
| Pentaerythritol tetranitrate | 78-11-5 | trace | PETN |

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Notes

Concentrations listed above are the final concentration in the complete finished cartridge.
The exact concentration of ingredients has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

None required under normal conditions.

If projectiles are fired, or otherwise discharged, the following treatment may be necessary:

Move to fresh air.

Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

None required under normal conditions.

If cartridges are fired, or otherwise discharged, the following treatment may be necessary:

Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes.

If exposed or concerned, get medical advice or attention.

Eye Contact

None required under normal conditions.

If cartridges are fired, or otherwise discharged, the following treatment may be necessary:

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

If eye irritation persists, get medical advice or attention.

Ingestion

None required under normal conditions.

Not expected, based upon the current form of the product.

Most Important Symptoms and Effects, Acute and Delayed

If cartridges are fired, or otherwise discharged, gases, fumes and projections may be formed. These gases, fumes and projections may contain trace amounts of the components inside the cartridges. These gases, fumes and projections may be irritating to the eyes skin and respiratory tract.

Immediate Medical Attention and Special Treatment

Target Organs

If fired different decomposition product could have effects on: digestive system, respiratory system, nervous system.

Special Instructions

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Explosive product: do not fight the fire.

If fire has not reached explosives:

Use flooding quantities of water or other suitable extinguishing agent. Carbon dioxide, dry chemical powder or appropriate foam.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

Can ignite if strongly heated.

Can be ignited by static discharge.

Ignites readily. When ignited burns vigorously and persistently.

Heating may cause a fire or explosion.

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Explosive; fire, blast or projection hazard.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; nitrogen oxides; corrosive sulfur oxides.

Special Protective Equipment and Precautions for Fire-fighters

Do not fight fire when fire reaches explosives. Risk of explosion.

Evacuate area.

Fight fire from a safe distance or a protected location.

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

Cargo Fires: Packages bearing the 1.4 label or packages containing material classified as 1.4 are designed or packaged in such manner that when involved in a fire, may burn vigorously with localized detonations and projection of fragments.

Effects are usually confined to immediate vicinity of packages.

If fire threatens cargo area containing packages bearing the 1.4 label or packages containing material classified as 1.4, consider isolating at least 15 meters (50 feet) in all directions. Fight fire with normal precautions from a reasonable distance.

Tire or vehicle fires: Use plenty of water - FLOOD it! If water is not available, use CO₂, dry chemical or dirt.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel.

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Eliminate all ignition sources. Use grounded, explosion-proof equipment.

Environmental Precautions

If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Do not allow into any sewer, on the ground or into any waterway.

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Handle spilled products carefully. Do not subject product to mechanical shock. Remove all sources of ignition. Ventilate the area.

For solid, intact cartridges: pick up and arrange disposal.

If loose powder is present: dissolve with alcohol, wipe off with rag

If spill occurs in an area where there is a fire burning: EVACUATE area. Refer to section 5.

All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Do not operate radio transmitters within 100 meters (330 feet) of electric detonators. Pick up and arrange disposal without creating dust.

Other Information

Contact supplier, local fire and emergency services for help.

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs.

Electrically bond and ground equipment. Ground clips must contact bare metal.

Avoid shock, friction or impact. Do not skid, drag or drop containers.

Only use where there is adequate ventilation.

Wear personal protective equipment to avoid direct contact with this chemical.

Disassembly/assembly operations shall be conducted only by experienced personnel qualified to perform the task.

Follow appropriate explosive safety requirements. Local ordinances may apply.

Conditions for Safe Storage

Store in an area that is: cool, temperature-controlled, well-ventilated, out of direct sunlight and away from heat and

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ignition sources. No smoking in the area.

Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Store in the original, labelled, shipping container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| Chemical Name | ACGIH® TLV® | | OSHA PEL | |
|------------------------------|-------------------------------|-----------------|----------------------------|-----------------|
| | TWA | STEL [C] | TWA | STEL |
| Copper | 1 mg/m ³ | Not established | 0.1 mg/m ³ | Not established |
| Zinc metal | Not established | Not established | Not established | Not established |
| Diazodinitrophenol | Not established | Not established | Not established | Not established |
| Tetrazene | Not established | Not established | Not established | Not established |
| Polypropylene | Not established | Not established | Not established | Not established |
| Sodium lauryl ether sulfate | Not established | Not established | Not established | Not established |
| 1,2-Propylene glycol | Not established | Not established | Not established | Not established |
| Barium sulfate | 5 mg/m ³ | Not established | 10 mg/m ³ | Not established |
| Poly(oxyethylene) | Not established | Not established | 5 mg/m ³ | Not established |
| Nitrocellulose | Not established | Not established | Not established | Not established |
| Potassium nitrate | Not established | Not established | Not established | Not established |
| Nitroglycerin | 0.05 ppm Skin | Not established | 0.1 mg/m ³ Skin | Not established |
| Ethyl centralite | Not established | Not established | Not established | Not established |
| Diphenylamine | 10 mg/m ³ | Not established | 10 mg/m ³ | Not established |
| Graphite (natural) | 2 mg/m ³ | Not established | 2.5 mg/m ³ | Not established |
| Dibutyl phthalate | 5 mg/m ³ | Not established | 5 mg/m ³ | Not established |
| Polyester adipate | Not established | Not established | Not established | Not established |
| Rosin | Not established | Not established | Not established | Not established |
| N-Nitrosodiphenylamine | Not established | Not established | Not established | Not established |
| Potassium sulfate | Not established | Not established | Not established | Not established |
| Calcium carbonate | Not established | Not established | 15 mg/m ³ | Not established |
| Aluminum powder, uncoated | 1 mg/m ³ A4 | Not established | 5 mg/m ³ | Not established |
| 2,4-Dinitrotoluene | 0.2 mg/m ³ A3 Skin | Not established | Not established | Not established |
| Arkadite II | Not established | Not established | Not established | Not established |
| Ethyl acetate | 400 ppm | Not established | 400 ppm | Not established |
| Tin dioxide | Not established | Not established | 2 mg/m ³ | Not established |
| Bismuth | Not established | Not established | Not established | Not established |
| Bismuth oxide | Not established | Not established | Not established | Not established |
| Pentaerythritol tetranitrate | Not established | Not established | Not established | Not established |

Appropriate Engineering Controls

General ventilation is usually adequate.

Do not allow product to accumulate in the air in work or storage areas, or in confined spaces.

Individual Protection Measures

Eye/Face Protection

Safety glasses with side shields should be used with this product. If necessary, refer to U.S. OSHA 29 1310.133 or Canadian CSA Standard Z94.3-02.

Skin Protection

Not required, if used as directed. Prevent skin contact.

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Respiratory Protection

Not normally required if product is used as directed. Use a NIOSH approved dust respirator if dust levels exceed exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

| | |
|--|---|
| Odour | Odourless |
| Melting Point/Freezing Point | Not applicable (melting); Not applicable (freezing) |
| Initial Boiling Point/Range | Not applicable |
| Flash Point | Not applicable |
| Evaporation Rate | Not applicable |
| Flammability (solid, gas) | Not applicable |
| Upper/Lower Flammability or Explosive Limit | Not applicable (upper); Not applicable (lower) |
| Vapour Density (air = 1) | Not applicable |
| Solubility | Insoluble in water |
| Auto-ignition Temperature | ≥ 120 °C (248 °F) (Tetrazene) |
| Decomposition Temperature | Not applicable |
| Other Information | |
| Physical State | Solid |
| Molecular Formula | Not applicable |
| Critical Temperature | ≥ 120 °C (248 °F) (Tetrazene) |

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Heating may cause a fire or explosion. Explosive; fire, blast or projection hazard.

Sensitive to mechanical impact.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

May igniter if primer is struck.

Mechanical shock or impact. Friction.

Open flames, sparks, static discharge, heat and other ignition sources. Temperatures above 120.0 °C (248.0 °F)

Incompatible Materials

Oils, acids, alkalis, ammonium salts, ammonia and other corrosives materials.

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide.

Corrosive, oxidizing nitrogen oxides.

Corrosive sulfur oxides.

Decomposes in the presence of heat. May produce metal oxides and fumes.

SECTION 11. TOXICOLOGICAL INFORMATION

The following hazards are not expected to be present unless the product is fired or otherwise discharged so that gases, fumes and/or projections are created.

Normal handling and shipping should not cause exposure to these hazards.

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Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

| Chemical Name | LC50 | LD50 (oral) | LD50 (dermal) |
|------------------------------|---|----------------------|-----------------------------|
| Copper | Not available | 413 mg/kg (mouse) | 375 mg/kg (rabbit) |
| Zinc metal | Not available | 630 mg/kg | Not available |
| Diazodinitrophenol | Not available | Not available | Not available |
| Tetrazene | Not available | Not available | Not available |
| Polypropylene | Not available | > 8000 mg/kg (rat) | Not available |
| Sodium lauryl ether sulfate | Not available | > 5000 mg/kg (rat) | > 2000 mg/kg (rat) |
| 1,2-Propylene glycol | 44900 mg/m ³ (rat) (4-hour exposure) | 21800 mg/kg (rat) | 20800 mg/kg (rabbit) |
| Barium sulfate | Not available | > 3000 mg/kg (mouse) | Not available |
| Poly(oxymethylene) | > 22000 mg/m ³ (rat) | > 11000 mg/kg (rat) | Not available |
| Nitrocellulose | Not available | 5000 mg/kg (rat) | Not available |
| Potassium nitrate | Not available | 3015 mg/kg (rat) | Not available |
| Nitroglycerin | Not available | 105 mg/kg (rat) | > 280 mg/kg (rabbit) |
| Ethyl centralite | Not available | 2750 mg/kg (rat) | Not available |
| Diphenylamine | Not available | 1120 mg/kg (rat) | > 5000 mg/kg (rabbit) |
| Graphite (natural) | > 64 mg/L (rat) | > 10000 mg/kg (rat) | Not available |
| Dibutyl phthalate | 12500 mg/m ³ (mouse) (4-hour exposure) | 8000 mg/kg (rat) | 4200 mg/kg (rabbit) 90 days |
| Polyester adipate | Not available | Not available | Not available |
| Rosin | 110 mg/m ³ (rat) | 7600 mg/kg (rat) | Not available |
| N-Nitrosodiphenylamine | Not available | 1825 mg/kg (rat) | > 7940 mg/kg (rabbit) |
| Potassium sulfate | Not available | 6600 mg/kg (mouse) | Not available |
| Calcium carbonate | Not available | 6450 mg/kg (rat) | Not available |
| Aluminum powder, uncoated | > 1000 mg/m ³ (male rat) (4-hour exposure) | Not available | Not available |
| 2,4-Dinitrotoluene | Not available | 400 mg/kg (rat) | > 2500 mg/kg (rat) |
| Arkadite II | Not available | 2930 mg/kg (rat) | > 280 mg/kg (rabbit) |
| Ethyl acetate | 1500 ppm (mouse) (4-hour exposure) | 4900 mg/kg (rabbit) | Not available |
| Tin dioxide | Not available | > 20000 mg/kg (rat) | Not available |
| Bismuth | Not available | 5000 mg/kg | Not available |
| Bismuth oxide | Not available | 4000 mg/kg (rat) | Not available |
| Pentaerythritol tetranitrate | Not available | 1660 mg/kg (rat) | Not available |

Skin Corrosion/Irritation

After munitions have been fired, dust, vapours and/or fumes may cause irritation.

Serious Eye Damage/Irritation

After munitions have been fired, dust, vapours and/or fumes may cause irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

After munitions have been fired, dust, vapours and/or fumes may be irritating to the respiratory system.

May cause depression of the central nervous system. (Nitroglycerin). (Ethyl acetate)

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Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest. Symptoms may include headache, nausea, dizziness, drowsiness and confusion.

Skin Absorption

After munitions have been fired, dust can be absorbed through the pores if left on the skin.

Ingestion

After munitions have been fired, dust, vapours and/or fumes may be absorbed by the digestive system and be irritating

Can cause effects as described for inhalation.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause effects similar to STOT (Specific Target Organ Toxicity) - Single Exposure, as described above.

Respiratory and/or Skin Sensitization

Not a respiratory sensitizer. Not a skin sensitizer.

Carcinogenicity

| Chemical Name | IARC | ACGIH® | NTP |
|------------------------------|------------|----------------|------------|
| Copper | Not Listed | Not designated | Not Listed |
| Zinc metal | Not Listed | Not designated | Not Listed |
| Diazodinitrophenol | Not Listed | Not designated | Not Listed |
| Tetrazene | Not Listed | Not designated | Not Listed |
| Polypropylene | Group 3 | Not designated | Not Listed |
| Sodium lauryl ether sulfate | Not Listed | Not designated | Not Listed |
| 1,2-Propylene glycol | Not Listed | Not designated | Not Listed |
| Barium sulfate | Not Listed | Not designated | Not Listed |
| Poly(oxymethylene) | Not Listed | Not designated | Not Listed |
| Nitrocellulose | Not Listed | Not designated | Not Listed |
| Potassium nitrate | Not Listed | Not designated | Not Listed |
| Nitroglycerin | Not Listed | Not designated | Not Listed |
| Ethyl centralite | Not Listed | Not designated | Not Listed |
| Diphenylamine | Not Listed | A4 | Not Listed |
| Graphite (natural) | Not Listed | Not designated | Not Listed |
| Dibutyl phthalate | Not Listed | Not designated | Not Listed |
| Polyester adipate | Not Listed | Not designated | Not Listed |
| Rosin | Not Listed | Not designated | Not Listed |
| N-Nitrosodiphenylamine | Group 3 | Not designated | Not Listed |
| Potassium sulfate | Not Listed | Not designated | Not Listed |
| Calcium carbonate | Not Listed | Not designated | Not Listed |
| Aluminum powder, uncoated | Not Listed | A4 | Not Listed |
| 2,4-Dinitrotoluene | Group 2B | A3 | Not Listed |
| Arkadite II | Not Listed | Not designated | Not Listed |
| Ethyl acetate | Not Listed | Not designated | Not Listed |
| Tin dioxide | Not Listed | Not designated | Not Listed |
| Bismuth | Not Listed | Not designated | Not Listed |
| Bismuth oxide | Not Listed | Not designated | Not Listed |
| Pentaerythritol tetranitrate | Not Listed | Not designated | Not Listed |

IARC:

Group 2B – Possibly carcinogenic to humans.

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Group 3 – Not classifiable as to its carcinogenicity to humans.

ACGIH®:

A3 – Confirmed animal carcinogen.

A4 – Not classifiable as a human carcinogen.

Key to Abbreviations

ACGIH® = American Conference of Governmental Industrial Hygienists.

IARC = International Agency for Research on Cancer.

NTP = National Toxicology Program.

Reproductive Toxicity

Development of Offspring

May harm the unborn child. (Dibutyl phthalate)

Sexual Function and Fertility

Animal studies show effects on sexual function and/or fertility. (Diphenylamine). (Dibutyl phthalate)

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life, based on acute toxicity tests. (Copper). (Zinc metal). (Aluminum Powder). (Sodium lauryl ether sulfate). (Ethyl centralite). (Nitroglycerin). (Diphenylamine). (Dibutyl phthalate)

Acute Aquatic Toxicity

| Chemical Name | LC50 Fish | EC50 Crustacea | ErC50 Algae |
|-----------------------------|--|--|---|
| Copper | 0.0224 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour) | 0.2 mg/L (Daphnia magna (water flea); 48-hour) | Not available |
| Zinc metal | 0.450 mg/L (96-hour) | 0.068 mg/L (Daphnia magna (water flea); 48-hour) | 0.15 mg/L (72-hour) |
| Diazodinitrophenol | Not available | Not available | Not available |
| Tetrazene | Not available | Not available | Not available |
| Polypropylene | Not available | Not available | Not available |
| Sodium lauryl ether sulfate | 10-100 mg/L (Leuciscus idus) | 2.3-4.8 mg/L (Ceriodaphnia dubia (Water flea); 48-hour) | Not available |
| 1,2-Propylene glycol | 51600 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; static) | > 18300 mg/L (Daphnia magna (water flea); 48-hour) | 19000 mg/L (Selenastrum capricornutum (algae); 96-hour; static) |
| Barium sulfate | Not available | 32 mg/L (Daphnia magna (water flea); 48-hour; fresh water; static) | Not available |
| Poly(oxymethylene) | Not available | Not available | Not available |
| Nitrocellulose | Not available | Not available | 730 mg/L (Selenastrum capricornutum (algae); 96-hour) |
| Potassium nitrate | 39 mg/L (Daphnia magna (water flea); 96-hour; fresh water; static) | Not available | Not available |
| Nitroglycerin | 1.28 mg/L (Lepomis macrochirus (bluegill); 96-hour; static) | Not available | Not available |
| Ethyl centralite | 15.6 mg/L (96-hour; static) | 14.3 mg/L (Daphnia magna (water flea); 48-hour; static) | 37.8 mg/L (Desmodesmus subspicatus (algae); |

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| | | | 72-hour; static) |
| Diphenylamine | 3.79 mg/L (Pimephales promelas (fathead minnow); 96-hour) | 0.27-0.36 mg/L (Daphnia magna (water flea); 48-hour) | 0.048 mg/L (Desmodesmus subspicatus (algae); 72-hour) |
| Graphite (natural) | > 100 mg/L (96-hour) | > 100 mg/L (Daphnia magna (water flea); 48-hour) | > 100 mg/L (Pseudokirchneriella subcapitata (algae); 72-hour) |
| Dibutyl phthalate | 44 mg/L (Lepomis macrochirus (bluegill); 96-hour; fresh water; static) | 17 mg/L (Daphnia magna (water flea); fresh water; recirculation) | 25-50 mg/L (Pseudokirchneriella subcapitata (algae); 96-hour; fresh water; static) |
| Polyester adipate | Not available | Not available | Not available |
| Rosin | 60.3 mg/L (96-hour; static) | Not available | Not available |
| N-Nitrosodiphenylamine | 5.8 mg/L (Lepomis macrochirus (bluegill); 96-hour) | 7.8 mg/L (Daphnia magna (water flea); 48-hour) | Not available |
| Potassium sulfate | 680 mg/L (Pimephales promelas (fathead minnow); 96-hour) | Not available | Not available |
| Calcium carbonate | > 56000 mg/L (96-hour; static) | Not available | Not available |
| Aluminum powder, uncoated | 0.12 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; static) | Not available | Not available |
| 2,4-Dinitrotoluene | 24.3 mg/L (Pimephales promelas (fathead minnow); 96-hour) | <= 38 mg/L (Daphnia magna (water flea); fresh water; recirculation) | 14.3 mg/L (Pseudokirchneriella subcapitata (algae); 96-hour; fresh water; static) |
| Arkadite II | Not available | Not available | Not available |
| Ethyl acetate | 230 mg/L (Pimephales promelas (fathead minnow); 96-hour; fresh water; flow-through) | 2306 mg/L (Daphnia magna (water flea); 48-hour; fresh water; recirculation) | 5600 mg/L (Desmodesmus subspicatus (algae); 48-hour; fresh water; static) |
| Tin dioxide | Not available | Not available | Not available |
| Bismuth | Not available | > 100 mg/L (Daphnia magna (water flea); 48-hour; static) | Not available |
| Bismuth oxide | Not available | Not available | Not available |
| Pentaerythritol tetranitrate | 27000 mg/L (Pimephales promelas (fathead minnow); 96-hour; fresh water; static) | 8500 mg/L (Daphnia magna (water flea); 48-hour; fresh water; static) | Not available |

Bioaccumulative Potential

This product and its degradation products are not known to bioaccumulate.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

The recommended means for disposing of scrap material usually involves demilitarization of detonator assembly (i.e.: separating all explosive elements for individual destruction) it can also be done by open detonation but it is not the preferred way.

Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state,

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provincial or federal environmental agency for specific rules.
Dispose of contents and container in accordance with local, regional, national and international regulations.
Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

SECTION 14. TRANSPORT INFORMATION

| Regulation | UN No. | Proper Shipping Name | Transport Hazard Class(es) | Packing Group |
|--------------|--------|------------------------------------|----------------------------|---------------|
| Canadian TDG | UN0012 | Cartridges for weapons, small arms | 1.4S | II |

Special Precautions Please note: Avoid shock and friction. Appropriate advice on safety must accompany the package.

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

CEPA - National Pollutant Release Inventory (NPRI)

Part 1A. (Copper). (Zinc metal). (Potassium nitrate). (Aluminum Powder). (Dibutyl phthalate). (Diphenylamine). (Nitroglycerin). (N-Nitrosodiphenylamine). (2,4-Dinitrotoluene)

Part 5. (Ethyl acetate)

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By General Dynamics - Ordnance and Tactical Systems - Canada Inc

Phone No. (450) 581-3080

Date of Preparation décembre 15, 2021

Date of Last Revision mai 26, 2021

Revision Indicators The following SDS content was changed on décembre 15, 2021:
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS;
Ingredient Information.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION;
in accordance with changes in section 3
SECTION 11. TOXICOLOGICAL INFORMATION;
in accordance with changes in section 3
SECTION 12. ECOLOGICAL INFORMATION;
in accordance with changes in section 3

Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists

HSDB® = Hazardous Substances Data Bank

IARC = International Agency for Research on Cancer

NIOSH = National Institute for Occupational Safety and Health

NTP = National Toxicology Program

Product Identifier: Cartridge 5.56 mm FX® GEN II Marking TOXFREE®

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OSHA = US Occupational Safety and Health Administration

RTECS® = Registry of Toxic Effects of Chemical Substances

Inh = Inhalation

LC = Lethal Concentration

LD = Lethal Dose

EPA = Environmental Protection Agency

PEL = Permissible exposure limit

SDS = Safety Data Sheet / Material Safety Data Sheet

STEL = Short Term Exposure Limit

TDG = Canadian Transportation of Dangerous Goods Act & Regulations

TLV = Threshold Limit Values

TWA = Time Weighted Average

WHMIS = Workplace Hazardous Materials Identification System

N/Ap = Not Applicable

References

CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS).

NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS).

Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices.

Chempendium, HSDB and RTECS database. Available from Canadian Centre for Occupational Health and Safety (CCOHS).

Disclaimer

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