

# Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer

## SECTION 1. IDENTIFICATION

|   |  |
|---|--|
| <b>Product Identifier</b>               | Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer  |
| <b>Other Means of Identification</b>    | Revision 0   |
| <b>Product Family</b>                   | Cartridge, 9 MM, Gen 2   |
| <b>Recommended Use</b>                  | Cartridge for training use.  |
| <b>Manufacturer/Supplier Identifier</b> | General Dynamics - Ordnance and Tactical Systems - Canada Inc, 5, Montée des Arsenaux, Repentigny, Québec, J5Z 2P4, 450-581-3080 |
| <b>Emergency Phone No.</b>              | MD-UN, 1-888-922-3330, (Canada/U.S.A)  |
| <b>SDS No.</b>                          | 5330009  |
| <b>Date of Preparation</b>              | janvier 13, 2022   |

## 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.

---

|                      |   |
|----------------------|---|
| Product Identifier:  | Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer |
| SDS No.:             | 5330009   |
| Date of Preparation: | janvier 13, 2022                                      |

**Storage:**

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            |
| Polypropylene               | 9003-07-0  | 1 - 5   | PP                |
| Nitroglycerin               | 55-63-0    | trace   | NG                |
| Diazodinitrophenol          | 87-31-0    | 0.1 - 1 | DDNP              |
| Nitrocellulose              | 9004-70-0  | 0.1 - 1 | NC                |
| Potassium nitrate           | 7757-79-1  | 0.1 - 1 |                   |
| Aluminum Powder             | 7429-90-5  | trace   |                   |
| Tetrazene                   | 54410-57-0 | trace   |                   |
| N,N'-diethyl-carbanilide    | 85-98-3    | trace   | Ethyl Centralite  |
| Diphenylamine               | 122-39-4   | trace   |                   |
| Graphite (natural)          | 7782-42-5  | trace   |                   |
| Dibutyl phthalate           | 84-74-2    | trace   | DBP               |
| Polyester adipate           | 24938-37-2 | trace   |                   |
| Rosin                       | 8050-09-7  | trace   |                   |
| N-Nitrosodiphenylamine      | 86-30-6    | trace   |                   |
| Potassium sulfate           | 7778-80-5  | trace   |                   |
| Calcium carbonate           | 471-34-1   | trace   |                   |
| 2,4-Dinitrotoluene          | 121-14-2   | trace   | DNT               |
| N'-methyl-N,N-diphenyl-urea | 13114-72-2 | trace   | Arkadite II       |
| Ethyl acetate               | 141-78-6   | trace   |                   |
| Tin dioxide                 | 18282-10-5 | trace   |                   |

**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**

Product Identifier: Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer

SDS No.: 5330009

Page 02 of 11

Date of Preparation: janvier 13, 2022

### **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.

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.

---

Product Identifier: Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer

SDS No.: 5330009

Page 03 of 11

Date of Preparation: janvier 13, 2022

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 CO<sub>2</sub>, 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.

### 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 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 <sup>3</sup> | Not established | 0.1 mg/m <sup>3</sup> | Not established |
| Zinc metal    | Not established     | Not established | Not established       | Not established |

Product Identifier: Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer

SDS No.: 5330009

Page 04 of 11

Date of Preparation: janvier 13, 2022

|                             |                   |                 |                 |                 |
|-----------------------------|-------------------|-----------------|-----------------|-----------------|
| 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 |
| Poly(oxymethylene)          | Not established   | Not established | 5 mg/m3         | 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/m3 Skin  | Not established |
| N,N'-diethyl-carbanilide    | Not established   | Not established | Not established | Not established |
| Diphenylamine               | 10 mg/m3          | Not established | 10 mg/m3        | Not established |
| Graphite (natural)          | 2 mg/m3           | Not established | 2.5 mg/m3       | Not established |
| Dibutyl phthalate           | 5 mg/m3           | Not established | 5 mg/m3         | 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/m3        | Not established |
| Aluminum Powder             | 1 mg/m3 A4        | Not established | 5 mg/m3         | Not established |
| 2,4-Dinitrotoluene          | 0.2 mg/m3 A3 Skin | Not established | Not established | Not established |
| N'-methyl-N,N-diphenyl-urea | 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/m3         | 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.

#### 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

|  |   |
|--|---|
| <b>Appearance</b>                                  | Brass and plastic cartridge.                        |
| <b>Odour</b>                                       | Odourless   |
| <b>Odour Threshold</b>                             | Not applicable                                      |
| <b>pH</b>  | Not applicable                                      |
| <b>Melting Point/Freezing Point</b>                | Not applicable (melting); Not applicable (freezing) |
| <b>Initial Boiling Point/Range</b>                 | Not applicable                                      |
| <b>Flash Point</b>                                 | Not applicable                                      |
| <b>Evaporation Rate</b>                            | Not applicable                                      |
| <b>Flammability (solid, gas)</b>                   | Not applicable                                      |
| <b>Upper/Lower Flammability or Explosive Limit</b> | Not applicable (upper); Not applicable (lower)      |

Product Identifier: Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer

SDS No.: 5330009

Page 05 of 11

Date of Preparation: janvier 13, 2022

|   |                                |
|---|--------------------------------|
| <b>Vapour Pressure</b>                                  | Not applicable                 |
| <b>Vapour Density (air = 1)</b>                         | Not applicable                 |
| <b>Relative Density (water = 1)</b>                     | Not applicable                 |
| <b>Solubility</b>                                       | Insoluble in water             |
| <b>Partition Coefficient, n-Octanol/Water (Log Kow)</b> | Not applicable                 |
| <b>Auto-ignition Temperature</b>                        | >= 120 °C (248 °F) (Tetrazene) |
| <b>Decomposition Temperature</b>                        | Not applicable                 |
| <b>Viscosity</b>  | Not applicable (kinematic)     |
| <b>Other Information</b>                                |                                |
| <b>Physical State</b>                                   | Solid                          |

## 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.

## 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.

### 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        |
| Poly(oxyethylene)  | > 22000 mg/m <sup>3</sup> (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) |

Product Identifier: Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer

SDS No.: 5330009

Page 06 of 11

Date of Preparation: janvier 13, 2022

|                             |  |                     |                             |
|-----------------------------|--|---------------------|-----------------------------|
| N,N'-diethyl-carbanilide    | 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/m3 (mouse)<br>(4-hour exposure)     | 8000 mg/kg (rat)    | 4200 mg/kg (rabbit) 90 days |
| Polyester adipate           | Not available                                | Not available       | Not available               |
| Rosin                       | 110 mg/m3 (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             | > 1000 mg/m3 (male rat)<br>(4-hour exposure) | Not available       | Not available               |
| 2,4-Dinitrotoluene          | Not available                                | 400 mg/kg (rat)     | > 2500 mg/kg (rat)          |
| N'-methyl-N,N-diphenyl-urea | Not available                                | 2930 mg/kg (rat)    | > 280 mg/kg (rabbit)        |
| Ethyl acetate               | 1500 ppm (mouse) (4-hour<br>exposure)        | 4900 mg/kg (rabbit) | Not available               |
| Tin dioxide                 | Not available                                | > 20000 mg/kg (rat) | Not available               |

#### 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.

#### 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)  
Symptoms may include headache, nausea, dizziness, drowsiness and confusion.

##### Skin Absorption

No information was located.

##### 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 |
| Poly(oxymethylene) | Not Listed | Not designated | Not Listed |
| Nitrocellulose     | Not Listed | Not designated | Not Listed |
| Potassium nitrate  | Not Listed | Not designated | Not Listed |

Product Identifier: Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer

SDS No.: 5330009

Page 07 of 11

Date of Preparation: janvier 13, 2022

|                             |            |                |            |
|-----------------------------|------------|----------------|------------|
| Nitroglycerin               | Not Listed | Not designated | Not Listed |
| N,N'-diethyl-carbanilide    | 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             | Not Listed | A4             | Not Listed |
| 2,4-Dinitrotoluene          | Group 2B   | A3             | Not Listed |
| N'-methyl-N,N-diphenyl-urea | Not Listed | Not designated | Not Listed |
| Ethyl acetate               | Not Listed | Not designated | Not Listed |
| Tin dioxide                 | Not Listed | Not designated | Not Listed |

IARC:

Group 2B – Possibly carcinogenic to humans.

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). (Ethyl centralite). (Nitroglycerin). (Diphenylamine). (Dibutyl phthalate). (Aluminum Powder)

#### Acute Aquatic Toxicity

| Chemical Name      | LC50 Fish  | EC50 Crustacea   | ErC50 Algae         |
|--------------------|--|--|---------------------|
| Copper             | 0.0224 mg/L<br>(Oncorhynchus mykiss<br>(rainbow trout); 96-hour) | 0.2 mg/L (Daphnia magna<br>(water flea); 48-hour)      | Not available       |
| Zinc metal         | 0.450 mg/L (96-hour)   | 0.068 mg/L (Daphnia<br>magna (water flea);<br>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       |
| Poly(oxymethylene) | Not available  | Not available  | Not available       |

Product Identifier: Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer

SDS No.: 5330009

Page 08 of 11

Date of Preparation: janvier 13, 2022



|                              |   |   |  |
|------------------------------|---|---|--|
| 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  |
| N,N'-diethyl-carbanilide     | 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); 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              | 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)  |
| N'-methyl-N, N-diphenyl-urea | 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  |

#### Bioaccumulative Potential

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

## SECTION 13. DISPOSAL CONSIDERATIONS

Product Identifier: Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer

SDS No.: 5330009

Page 09 of 11

Date of Preparation: janvier 13, 2022

## 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, 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

|                             |  |
|-----------------------------|--|
| <b>SDS Prepared By</b>      | General Dynamics - Ordnance and Tactical Systems - Canada Inc      |
| <b>Phone No.</b>            | (450) 581-3080   |
| <b>Date of Preparation</b>  | janvier 13, 2022   |
| <b>Revision Indicators</b>  | Not applicable.; First version                                     |
| <b>Key to Abbreviations</b> | 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                                  |
|                             | OSHA = US Occupational Safety and Health Administration            |
|                             | RTECS® = Registry of Toxic Effects of Chemical Substances          |

Product Identifier: Cartridge 9 mm FX® Non-Marking Gen 2, TOXFREE® Primer

SDS No.: 5330009

Date of Preparation: janvier 13, 2022

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

This Safety Data Sheet was prepared by General Dynamics Ordnance and Tactical Systems - Canada Inc. using internal information and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. General Dynamics Ordnance and Tactical Systems - Canada Inc. expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.  
This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of General Dynamics Ordnance and Tactical Systems - Canada Inc.