Cartridge 9 mm FX® Marking GEN 2

SECTION 1. IDENTIFICATION

Product Identifier	Cartridge 9 mm FX® Marking GEN 2
Other Means of Identification	Pb, revision 0
Product Family	Cartridge, 9 MM, GEN 2
Recommended Use	Cartridge for training use.
Restrictions on Use	For military and law enforcement personnel only.
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.	0392
Date of Preparation	mai 07, 2024

SECTION 2. HAZARD IDENTIFICATION

Classification

Explosive - Division 1.4; Acute toxicity (Inhalation) - Category 3; Skin irritation - Category 3; Carcinogenicity - Category 2; Aquatic hazard (Acute) - Category 1

Label Elements

Signal Word:
Danger

Hazard Statement(s):
Fire or projection hazard.
Toxic if swallowed or if inhaled.
Causes mild skin irritation.
Causes eye irritation.
May cause respiratory irritation.
Very toxic to aquatic life.

Prevention:
Do not handle until all safety precautions have been read and understood.
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 eye protection, protective gloves.
Avoid breathing dust/fume/gas/mist/vapours/spray.

Use only outdoors or in a well-ventilated area.
Wash hands and skin thoroughly after handling.
Avoid release to the environment.

Response:
In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTRE or doctor.
If skin irritation occurs: Get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice or attention.
IF exposed or concerned: Get medical advice or attention.
Collect spillage.

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:
Refer to manufacturer or supplier for information on recovery or recycling.
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.
Inner components include Lead and Lead compounds. Lead accumulates in body tissues and prolonged overexposure to even low levels may eventually result in lead toxicity syndrome which may result in permanent damage or death. See TOXICOLOGICAL INFORMATION, Section 11.
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.	%	EC Number	Other Names
Copper, metal	7440-50-8	45 - 70	231-159-6	- -
Zinc metal	7440-66-6	10 - 30	231-175-3	- -
Poly(oxymethylene)	9002-81-7	10 - 30	- -	Acetal homopolymer; POM
Polypropylene	9003-07-0	1 - 5	618-352-4	PP
Cellulose nitrate	9004-70-0	0.1 - 1	618-392-2	Nitrocellulose; NC
1,3-Benzenediol, 2,4,6-trinitro-, lead(2++) salt (1:1)	15245-44-0	0.1 - 1	239-290-0	Lead styphnate
Barium nitrate	10022-31-8	0.1 - 1	233-020-5	- -
Glycerol trinitrate	55-63-0	trace	200-240-8	Nitroglycerin; NG
1-Tetrazene-1-carboximidic acid, 4-(aminoiminomethyl)-, 2-nitrosohydrazide	109-27-3	trace	203-659-4	Tetrazene; GNGT
Aluminum Powder	7429-90-5	trace	231-072-3	- -

Nickel, metal	7440-02-0	trace	231-111-4	- -
Antimony sulfide	1345-04-6	trace	215-713-4	- -
Pentaerythritol tetranitrate	78-11-5	trace	201-084-3	PETN

Notes

Concentrations are expressed in % weight/weight.
Concentrations listed above are the final concentration in the complete finished cartridge.

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:
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts).
Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes.
Clean clothing, shoes and leather goods.
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.

Medical Conditions Aggravated by Exposure

None known. If you feel unwell, seek medical advice.

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: nitrogen oxides; corrosive sulfur oxides; very toxic lead oxides; very toxic carbon monoxide, carbon dioxide.

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.
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Firefighters should wear an approved full-faced, self-contained breathing apparatus (SCBA) and impervious clothing.
Unconfined ignited cartridges can produce low velocity metallic fragments which may cause eye injury or superficial skin wounds if unprotected by standard firefighters turnout gear.
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.
Remove or isolate incompatible materials as well as other hazardous materials.
Large spill: Consider initial evacuation for 50 meters (165 feet in all directions).

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.
Minimize the use of water to prevent environmental contamination. It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

If spill occurs in an area where there is a fire burning: EVACUATE area. Refer to section 5.
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: generously moisten with ethanol and pick up with a cloth. Prevent drying of the material during this process.

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, separate from incompatible materials (see Section 10: Stability and Reactivity).
Protect containers from impact, vibration and shock.
Store in the original, labelled, shipping container.
Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

	ACGIH® TLV®		OSHA PEL	
Chemical Name	**TWA**	**STEL [C]**	**TWA**	**STEL**
Copper, metal	0.2 mg/m3	Not established	0.1 mg/m3	Not established
Zinc metal	Not established	Not established	Not established	Not established
1-Tetrazene-1-carboximidic acid, 4-(aminoiminomethyl)-, 2-nitrosohydrazide	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
Cellulose nitrate	Not established	Not established	Not established	Not established
Glycerol trinitrate	0.05 ppm Skin	Not established	0.1 mg/m3 Skin	Not established
Aluminum Powder	1 mg/m3 A4	Not established	5 mg/m3	Not established
1,3-Benzenediol, 2,4,6-trinitro-, lead(2++) salt (1:1)	0.05 mg/m3	Not established	0.05 mg/m3	Not established
Nickel, metal	1.5 mg/m3 A5	Not established	1 mg/m3	Not established
Barium nitrate	0.5 mg/m3	Not established	0.5 mg/m3	Not established
Antimony sulfide	0.5 mg/m3	Not established	0.5 mg/m3	Not established
Pentaerythritol tetranitrate	Not established	Not established	Not established	Not established

A4 = Not classifiable as a human carcinogen.
A5 = Not suspected as a human carcinogen.

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. From firing residues and content of the cartridge.

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

Appearance	Brass cartridge ending with a plastic sabot which contains a colored compound. Particle Size: Not applicable
Odour	Odourless
Odour Threshold	Not applicable
pH	Not applicable
Melting Point/Freezing Point	Not applicable (melting); Not applicable (freezing)
Boiling point/Initial boiling point	Not applicable
Boiling 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 Pressure	Not applicable
Vapour Density (air = 1)	Not applicable
Relative Density (water = 1)	Not applicable
Solubility	Insoluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not applicable
Auto-ignition Temperature	>= 120 ºC (248 ºF)
Decomposition Temperature	Not applicable
Viscosity	Not applicable (kinematic); Not applicable (dynamic)

Other Information

Physical State	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.
Unstable under certain conditions - see Conditions to Avoid.

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 ºC (248.0 ºF)

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.
When heated to decomposition emits toxic fumes of lead.

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, metal	Not available	413 mg/kg (mouse)	375 mg/kg (rabbit)
Zinc metal	Not available	630 mg/kg	Not available
1-Tetrazene-1-carboximidic acid, 4-(aminoiminomethyl)-, 2-nitrosohydrazide	Not available	Not available	Not available
Polypropylene	Not available	> 8000 mg/kg (rat)	Not available
Poly(oxymethylene)	> 22000 mg/m3 (rat)	> 11000 mg/kg (rat)	Not available
Cellulose nitrate	Not available	5000 mg/kg (rat)	Not available
Glycerol trinitrate	Not available	105 mg/kg (rat)	> 280 mg/kg (rabbit)
Aluminum Powder	> 1000 mg/m3 (male rat) (4-hour exposure)	Not available	Not available
1,3-Benzenediol, 2,4,6-trinitro-, lead(2++) salt (1:1)	> 5.05 mg/L (rat)	> 2000 mg/kg (rat)	> 2000 mg/kg (rat)
Nickel, metal	> 2550 mg/m3 (rat) (4-hour exposure)	> 9000 mg/kg (rat) Suspension in mineral oil	Not available
Barium nitrate	Not available	355 mg/kg	Not available
Antimony sulfide	Not available	2000 mg/kg (rat)	2000 mg/kg (mouse)
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.
Symptoms may include headache, nausea, dizziness, drowsiness and confusion. Harmful effects on the kidneys. Depression of the central nervous system.
In severe cases, symptoms may include fatigue, shortness of breath, bluish lips and skin, headache, nausea, vomiting, irregular heartbeat, dizziness and confusion.
If a significant amount of lead has accumulated in the body, symptoms of long-term toxicity may develop after what may seem to be a short-term acute exposure.

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.

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Chronic exposure to lead can cause kidney damage, anemia, reproductive effects, developmental effects and permanent nervous system damage in humans including changes in cognitive function. May cause harmful effects on the kidneys, harmful effects on the liver, effects on the central nervous system. (1,3-Benzenediol, 2,4,6-trinitro-, lead(2++) salt (1:1)). (Glycerol trinitrate)

Respiratory and/or Skin Sensitization

Not a respiratory sensitizer. Not a skin sensitizer.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP
Copper, metal	Not Listed	Not designated	Not Listed
Zinc metal	Not Listed	Not designated	Not Listed
1-Tetrazene-1-carboximidic acid, 4-(aminoiminomethyl)-, 2-nitrosohydrazide	Not Listed	Not designated	Not Listed
Polypropylene	Group 3	Not designated	Not Listed
Poly(oxymethylene)	Not Listed	Not designated	Not Listed
Cellulose nitrate	Not Listed	Not designated	Not Listed
Glycerol trinitrate	Not Listed	Not designated	Not Listed
Aluminum Powder	Not Listed	A4	Not Listed
1,3-Benzenediol, 2,4,6-trinitro-, lead(2++) salt (1:1)	Group 2B	A3	Reasonably anticipated
Nickel, metal	Group 2B	A5	Reasonably anticipated
Barium nitrate	Group 2A	A4	Not Listed
Antimony sulfide	Not Listed	Not designated	Not Listed
Pentaerythritol tetranitrate	Not Listed	Not designated	Not Listed

May cause cancer based on studies in people and animals. (1,3-Benzenediol, 2,4,6-trinitro-, lead(2++) salt (1:1))

IARC:
Group 2A – Probably carcinogenic to humans.
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.
A5 – Not suspected 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

Lead has been shown to affect fetal development including birth defects and reduce male reproductive function in laboratory animals.

Sexual Function and Fertility

Inner cartridge components include Lead and Lead compounds. Lead accummulates in body tissues and prolonged overexposure to even low levels may eventually result in lead toxicity syndrome. Lead compounds are known to

cause certain reproductive effects in both males and females. Lead compounds are known to cause embryotoxicity.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

Lead has been shown to be mutagenic in several in vitro assays.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

Ecotoxicity

Toxic to aquatic life, based on acute toxicity tests. (Copper). (Zinc metal). (1,3-Benzenediol, 2,4,6-trinitro-, lead(2++) salt (1:1)). (Aluminum Powder) Harmful to fish,. (Nickel, metal). (Glycerol trinitrate)

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Algae
Copper, metal	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)
1-Tetrazene-1-carboximidic acid, 4-(aminoiminomethyl)-, 2-nitrosohydrazide	Not available	Not available	Not available
Polypropylene	Not available	Not available	Not available
Poly(oxymethylene)	Not available	Not available	Not available
Cellulose nitrate	Not available	Not available	730 mg/L (Selenastrum capricornutum (algae); 96-hour)
Glycerol trinitrate	1.28 mg/L (Lepomis macrochirus (bluegill); 96-hour; static)	Not available	Not available
Aluminum Powder	0.12 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; static)	Not available	Not available
1,3-Benzenediol, 2,4,6-trinitro-, lead(2++) salt (1:1)	0.108 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour)	0.45 mg/L (Daphnia magna (water flea); 48-hour)	2.66 mg/L (Chlorococcales (Green algae); 96-hour)
Nickel, metal	5.1 mg/L (Lepomis macrochirus (bluegill); 96-hour; static)	7.6 mg/L (Daphnia magna (water flea); 48-hour; static)	Not available
Barium nitrate	Not available	Not available	Not available
Antimony sulfide	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

Persistence and Degradability

Lead may persist and accumulate in the environment.

Bioaccumulative Potential

This product or its degradation products are expected to bioaccumulate.

Mobility in Soil

Dissolved lead may migrate through soil.

Other Adverse Effects

No other adverse environmental effects known.

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 incineration or open detonation but it is not the preferred way. The facility used for incineration must have been designed specifically for this purpose and meet applicable local, provincial (state) and federal regulations.
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
US DOT	UN0012	Cartridges for weapons, small arms	1.4S	II

Environmental Hazards Potential Marine Pollutant (1,3-Benzenediol, 2,4,6-trinitro-, lead(2++) salt (1:1))

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

Transport in Bulk according to International Maritime Organization Instruments

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/NDSL.

CEPA - National Pollutant Release Inventory (NPRI)

Part 1A. Copper (and its compounds); Zinc (and its compounds). (Barium nitrate) Nitrate ion in solution at a pH of 6.0 or more. (Glycerol trinitrate) Aluminum (fume and dust only). (Nickel, metal)
Part 1B. (1,3-Benzenediol, 2,4,6-trinitro-, lead(2++) salt (1:1))

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	mai 07, 2024
Date of Last Revision	mai 07, 2024
Revision Indicators	Not applicable.; First version
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 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 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).
Additional Information	General information: This classification has been derived in accordance with SIMDUT 2015. Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.
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.