



Single Base Powders
SAFETY DATA SHEET
June 2017

The following smokeless powders
are distributed by
IMR Legendary Powders

IMR 3031™ **(EX-2016090516)**
IMR 4007SSC™ (NO 1.4C)
IMR 4064® **(EX-2016090516)**
IMR 4198™ **(EX-2016090516)**
IMR4227™ **(EX-2016090516)**
IMR 4320™ **(EX-2016090516)**
IMR 4350™ **(EX-2016090516)**
SR4756™ (NO 1.4C)
SR4759™ (NO 1.4C)
IMR 4831™ **(EX-2016090516)**
IMR 4895™ **(EX-2016090516)**
SR7625® (NO 1.4C)
IMR 7828™ **(EX-2016090516)**
PB™ (NO 1.4C)
IMR 7828SSC™ **(EX-2016090516)**

1.4C EX Approvals in bold parenthesis

Material Safety Data Sheet

General Dynamics Ordnance and Tactical
Systems–Canada Valleyfield Inc.
55, rue Masson
Valleyfield (Québec)
Canada J6S 4V9

Emergency phone number
24 hours : 1-888-922-3330
Emergency Response Plan ERP2-1693

NZ DISTRIBUTOR:
Steve's Wholesale
Units 5-7 / 408 The Esplanade
Island Bay
Wellington 6023
04 383 7351 0800 303 303

Emergency Contact

Steve Collings 0274 905 708

SECTION I - PRODUCT IDENTIFICATION

Product name : IMR, CF & XPR28SSC (all types) Single base smokeless powder
WHIMS classification :
Division : not controlled
Subdivision : not controlled
GD Part number : 502-503-504-505-506-507-508-510-511-512-513-535-537-549-553-612.770
Chemical formula : N/AP
Product use : Gun propellant
CAS number : N/AP
MSDS number : 14F328
« NATO stock number » : N/AP

SECTION II - PHYSICAL / CHEMICAL DATA

Physical state and appearance : Black granular solid.
Molecular weight : N/AP
Vapour density (air = 1) : N/AP
Boiling point (°C) : N/AP
Odour : N/AV
Vapour pressure : N/AP
Evaporation : N/AP
Freezing point (°C) : N/AP
pH : N/AV
Coefficient of water / oil distribution : N/AV
Density : 1.6g/cm³
Solubility in water (20°C) : N/AP

SECTION III - COMPOSITION

<u>Ingredients</u>	<u>% wt</u>	<u>TWA</u>	<u>CAS number</u>
Nitrocellulose	80 - 100	None	9004-70-0
Diphenylamine	1 - 2	10 mg/m3	122-39-4
Dinitrotoluene	4-12	1.5 mg/m3	121-14-2
Potassium sulphate	0.5	N/AV	7778-80-5
Graphite	<1	10 mg/m3	7782-42-5

SECTION IV - FIRE AND EXPLOSION INFORMATION

Flash point (°C) :	N/AP
Autoignition temperature (°C) :	170° C (approx.)
Upper flammable limit (volume %) :	N/AV
Lower flammable limit (volume %) :	N/AV
Flammability ? :	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
If yes, under what conditions ? :	Heat, open flame, static discharge and impact.
Means of extinction :	Water can be used from a distance.
Special procedures :	Do not fight fire.
Hazardous combustion products :	Nitrogen and carbon oxides (NOx and COx).
Explosion data :	This product is explosive and will ignite at high temperature, with an open flame or with a spark.
Sensitivity to mechanical impact or to static discharge :	Sensitive to static discharge and impact.

SECTION V - REACTIVITY DATA

Chemical stability :	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
If no, under what conditions ? :	Heat, open flame and sparks.
Incompatibility to other substances ? :	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
If so, which ones ? :	Strong alkalis, strong acids and ignition sources.
Reactivity and under what conditions :	N/AP
Hazardous decomposition products :	Nitrogen oxides.

SECTION VI - HEALTH HAZARD DATA

Route of entry :

Skin absorption	<input type="checkbox"/>
Inhalation	<input checked="" type="checkbox"/>
Ingestion	<input checked="" type="checkbox"/>
Skin contact	<input checked="" type="checkbox"/>
Eye contact	<input type="checkbox"/>

Exposure limits (TWA) :

Graphite	Dinitrotoluene
10 mg/m ³	1.5 mg/m ³

Irritancy (product) :

Is irritating to the eyes and the respiratory tract.

Sensitization to product :

N/AV

Cancerogenicity :

N/AV

Teratogenicity :

N/AV

Reproductive effects :

N/AV

Synergistic materials :

N/AV

Mutagenicity :

N/AV

Effects of acute exposure to product:

These products were not tested for the toxicity. They are explosives of class B and ardent, stuffy or not, can cause physical injury, including the death.

Effects of chronic exposure to product :

N/AV

Toxicological data :

Products	Species	DL50 oral	DL50 skin	CL50 inhalation
Dinitrotoluene	Rat	278 mg/kg	N/AV	N/AV
Diphenylamine	Rat	>1500 mg/kg	N/AV	N/AV
Diphenylamine	Rabbit	N/AV	>5000 mg/kg	N/AV

SECTION VII - PREVENTIVE MEASURE

PERSONAL PROTECTIVE EQUIPMENT

Gloves and clothing :	Cotton or nitril gloves and protective clothing. Change frequently.
Eye protection :	Safety glasses with lateral protection.
Footwear :	Anti-static conductive shoes.
Other :	Safety shower and safety eye shower could be available.
Respiratory protection :	If ventilation is insufficient, wear a dust mask or a cartridge respirator.
Engineering controls :	N/AV
Handling procedures and equipment :	Explosive, will ignite if exposed to sudden heat.
Storage requirements :	Store away from source of ignition and heat.
Shipping information :	
	Hazard Class : 1.3C
	UN number : UN 0161
	Shipping name : Powder smokeless
	EX number : 1990030214-215-216-217-218-219-220-221-222-223-224-225-226-227, 1997080014, 1990060052, 1990080091, 2004090157
	Subsidiary risk : Ø
	Packing group : II

SECTION VIII - FIRST AID MEASURES

Skin :	Wash contaminated area with soap and water.
Eye :	Keeping eyes open, rinse immediately with running water for at least 15 minutes.
Inhalation :	Move victim to fresh air. If victim is not breathing give CPR. Give oxygen, keep victim warm and get medical help.
Ingestion :	Consult a physician
Other and advice to doctor :	N/AV

SECTION IX - ENVIRONMENTAL PROTECTION INFORMATION

Environmental effects :	N/AV	HSR100164
Deactivating chemicals :	N/AV	
Steps to be taken in the event of a spill or a leak :	Be sure to wet powder thoroughly before picking up with conventional methods.	
Waste disposal :	Incinerate at an approved site.	

SECTION X - PREPARATION INFORMATION SW Revision Date 05.05.2020

Prepared by : General Dynamics Ordnance and Tactical Systems–Canada Valleyfield Inc.
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Date : June, 2014

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Legend :

N/AP : Non applicable
N/AV : Not available
CAS : Chemical Abstract Service
TWA : Time Weighted Average
WHIMS : Workplace Hazardous Materials Information System