

Double Base Powders **SAFETY DATA SHEET**

July 2018

The following smokeless powders are distributed by IMR Legendary Powders

IMR Blue®
IMR Green ®
IMR Red ®
IMR UnEqual ®

1.4C EX Approval= (EX-2016050099)

Date: May, 2018

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name: HS, SS, RF (all types)

Synonyms: Double base, propellant powder

File: SDS-18E001

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use: Gun propellant

1.3 Details of the supplier of the safety data sheet

Supplier: General D

General Dynamics Ordonnance and Tactical Systems- Canada Valleyfield

55 rue Masson Valleyfield (Quebec)

Canada J6S 4V9

1.4 Emergency phone number

Emergency phone number: 1-888-922-3330 (24 hours)

NZ DISTRIBUTOR

Steve's Wholesale Ltd. Units 5

– 7 / 408 The Esplanade Island Bay Wellington 6023 team@steveswholesale.nz Emergency Contact: Steve

Collings 0800 303 303 0274 905 708

Poison Control 0800 POISON

(0800 764 766)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture according to Regulation SIMDUT 2015

Explosive Division 1.3 (H203)

Acute oral toxicity-Category 3

Acute toxicity, dermal-Category 1B

Specific target organ toxicity (single exposure) -Category 1

Specific target organ toxicity (repeated exposure) -Category 1

Carcinogenicity-Category 1A

Oxidizing combustible-Category 3

Physical Hazards: Explosives

Product is a mixture. Health hazards are based on published data for individual ingredients of the mixture.

Product as a whole has not been tested for health hazards

2.2 Label elements according to Regulation SIMDUT 2015

Pictogram:









Signal word: DANGER

Hazard Statements:

- H203 Explosive, fire, blast or projection hazard
- H301 Toxic if swallowed.
- H317 May cause an allergic skin reaction.
- H350 May cause cancer.
- H370 Causes damage to organs.
- H372 Causes damage to organs through prolonged or repeated exposure cause the hazard

Precautionary Statements:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P234 Keep only in original container.
- P250 Do not subject to grinding/shock/.../friction
- P262 Do not get in eyes, on skin, or on clothing.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P314-Get medical advice/attention if you feel unwell.
- P405 Store locked up.
- P501 Dispose of contents/container to ...
- P307 + P311 IF exposed: Call a POISON CENTER or doctor/physician.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
- P361 + P364- Remove/Take off immediately all contaminated clothing before reuse.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical name	CAS	Classification of the	HS	SS	RF
	number	substance	%wt	%wt	%wt
Nitrocellulose	9004-70-0	Expl. 1.1 – H201 Flammable solid	60-80	60-80	60-80
Nitroglycerin	55-63-0	Expl. 1.1 – H201 Acute oral toxicity- Category 3 Skin sensitization- Category 1B Specific target organ toxicity (single exposure) -Category 1 Specific target organ toxicity (repeated exposure) -Category 1	15-40	15-40	15-40
Ethyl centralite	85-98-3	This product isn't a hazardous product according to RPD classification criteria.	1-5	0.5-1.5	1-5
Potassium sulfate	7778-80-5	This product isn't a hazardous product according to classification criteria.	0.1-1	0.1-1	0.1-1
Graphite	7782-42-5	Carcinogenic- Category 1A Specific target organ toxicity (repeated exposure) -Category 1	0.1-1	0.1-1	0.1-1

The actual concentration range is withheld as a trade secret.

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SECTION 4: FIRST AIDS MEASURE

4.1 Description of first aid measures

Inhalation

Move victim to fresh air. If breathing is difficult, ensure airway is clear, give oxygen and continue monitoring. If victim is not breathing give CPR. Keep

victim warm and get medical help.

Skin contact

Wash contaminated area with soap and water

(P302+P352)

Eye contact

Keeping eyes open, rinse immediately with running water for at least ${\bf 15}$

minutes. If eye irritation develops, call a physician

Ingestion (P301-

Call a poison center or a doctor immediately

P310)

4.2 Most important symptoms and effects, both acute and delayed

May cause cancer after exposure. Irritates the eye. May cause skin irritation. Specific target organ toxicity (single exposure) category 1 and specific target organ toxicity (repeated exposure) category 1 which may cause various health problems.

4.3 Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation.

SECTION 5: FIRE-FIGTHING MEASURES

5.1 Extinguishing media

Large volumes of water should be applied as quickly possible from automatic sprinklers or fire hose.

Do not use water jet as an extinguisher, as this may spread fire.

5.2 Special hazards arising from the substance or mixture

Toxic vapors/gases may be formed during a fire. Combustion products vary depending on fire conditions and other combustibles present. The predominant product will be nitrogen oxide.

5.3 Advice for firefighters

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Special protective equipment and precautions for firefighters

Self-contained breathing apparatus (SCBA) and full protective clothing must be worn in case of fire. This includes, but is not limited to, impervious boots, gloves, hard hat and chemically impermeable suit.

Fire-fighting equipment/instructions

Fire involving smokeless propellant should NOT be fought unless extinguishing media can be applied from a well-protected (e.g. behind a berm or barricade) and distant location from the point of fire. Small quantities of propellant may be encountered in distribution or ammunition manufacturing, and should be evaluated in the context of applicable fire codes.

Specific methods

Do not firefight; evacuate personnel immediately and consider the hazards of other involve materials.

General fire hazards

Explosive; fire blast and projection hazard

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precaution, protective equipment and emergency procedures

Keep unnecessary personnel away. Eliminate all ignition sources. Use only non-sparking tools. Wear appropriate protective equipment and non-flammable or flame retardant clothing during clean-up. Avoid inhalation of dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fumes at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of this SDS.

6.2 Environmental precaution

Avoid discharge into drains, water courses or onto ground.

6.3 Methods and material for containment and cleaning up

Avoid dispersal of dust in the air (e.g. clearing dust surface with compressed air). Clean up spills immediately using non-sparking tools. Wet down spilled materials prior to initiating clean-up and keep material wet until ready for disposal. Avoid contamination of water bodies during clean up and disposal. This material is heavier than water. Create and overflow dam with filtration capabilities to retain material.

6.4 Reference to other sections

For waste disposal, see section 13 of this SDS

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Do not handle until all safety precaution have been read and understood. Do not subject to mechanical shock, Avoid exposure to sunlight or artificial ultraviolet light. Minimize dust generation and accumulation. Provide appropriate exhaust ventilation. Avoid breathing dust. Avoid contact with eyes, skin and clothing.

Do not taste or swallow. Wear appropriate personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Store in original container. Keep container tightly closed. Store in cool, dry, well-ventilated place away from all sources of ignition and heat. Store away from incompatible material (see section 10 of this SDS)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure Limits

Chemical name	CAS number	Limit value CAN	Limit value US
Nitrocellulose	9004-70-0	Non disponible	Non disponible
Nitroglycerin	55-63-0	0.2 ppm	0.2 ppm
Ethyle centralite	77-89-4	Non disponible	Non disponible
Potassium sulfate	7778-80-5	Non disponible	Non disponible
Graphite	7782-42-5	2 mg/m³	2.5 mg/m ³

Database source http://limitvalue.ifa.dguv.de/

Biological limit values

No biological exposure limits noted for the ingredient(s)

8.2 Exposure controls

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Engineering measures Local exhaust ventilation is recommended if significant dusting occurs.

Otherwise, use general exhaust ventilation. Eye wash fountain and

emergency showers are recommended.

Eye/face protection Wear safety glasses with side shields or goggles.

Skin protection Wear appropriate chemical resistant, flame retardant clothing. Change

frequently

Hand protection Cotton or Nitrile gloves

Respiratory protection If ventilation is insufficient, wear a dust mask or a cartridge respirator

General hygiene consideration

Always observe good personal hygiene measure, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance Black granular solid

Physical state Solid

Form Granular

Color Black

Odor Not applicable

PH Not applicable

Melting point/freezing point Not applicable

Initial boiling point/boiling Not applicable

range

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Flash point

Not available

Evaporation rate

Not applicable

Flammability

Flammable solid

Upper/lower flammability or

explosive limits

Not applicable

Vapor pressure

Not applicable

Vapor density

Not applicable

Relative density

1.6g/cm³

Solubility(ies)

Not available

Partition coefficient

Not available

(n-octanol/water)

Auto-ignition temperature

170°C

Decomposition temperature

Not applicable

Viscosity

Not applicable

9.2 Other information

Product can explode if ignited and confined

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Can ignite due to mechanical shock and/or impact. Can ignite due to static discharge. Product can explode if ignited and confined.

10.2 Chemical stability

Unstable when exposed to sources of heat, sunlight or artificial ultraviolet light.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Avoid contact with incompatible materials. Direct sunlight, artificial ultraviolet light, flame and heat.

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10.5 Incompatible materials

Strong acids and alkalis

10.6 Hazardous decomposition products

Nitrogen oxides (NO_x)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Produits	Espèces	LC50	LD50 oral	LD50 dermal
			5000	
Nitrocellulose	Rat	NA	mg/kg	NA
Nitroglycerin	Rat	NA	105	280 mg/kg (Rabbit)
Potassium sulfate	Rat	NA	NA	NA
Graphite	Rat	>64mg/L	10000	NA
Ethyl centralite	Rat	NA	2750	NA

Acute toxicity

Acute oral toxicity-Category 3

Skin corrosion/irritation

May cause skin irritation.

Serious eye

Causes serious eye irritation.

damage/irritation

May cause respiratory irritation.

Skin sensitization

May cause skin sensitization.

Germ cell mutagenicity

Respiratory sensitization

This product or any of its ingredients are not known or reported to be

mutagenic.

Carcinogenicity

May cause a cancer

Reproductive toxicity

Based on available data the classification criteria are not met.

Specific target organ toxicity-single exposure

Specific target organ toxicity (single exposure) -Category 1

Specific target organ

Specific target organ toxicity (repeated exposure) -Category 1

toxicity-repeated exposure

Due to the physical form of the product it is not an aspiration hazard.

Aspiration hazard

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Chronic effects

Based on available data the classification criteria are not met.

Inhalation

Dust may irritate respiratory system.

Skin contact

May cause skin irritation.

Eyes contact

Cause eye irritation.

Ingestion

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

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxic to aquatic life with long lasting effects

12.2 Persistence and degradability

No data available on product mixture

12.3 Bio accumulative potential

No data available on product mixture

12.4 Mobility in soil

No data available on product mixture

12.5 Results of PBT and vPvB assessment

No data available on product mixture

12.6 Other adverse effects

No other adverse environmental effects known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

If material becomes a waste, it may be treated by controlled burning in small quantities if permissible by relevant regulatory agencies. Material should be spread into thin layers and ignited from a safe distance. Dispose of in accordance with applicable federal, state and local regulations. Do not discharge into drains, water courses or onto the ground.

Local disposal regulation

Dispose of in accordance with local regulations.

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Waste from residues/unused products

Care must be taken to prevent environmental contamination from the use of this material. The user has the responsibility to dispose of unused material, residues and containers in compliance with all relevant laws and regulation.

Contaminated packaging

Emptied containers may contain explosive residues. Do not cut, drill, grind or weld on empty containers. Dispose of in accordance with applicable federal, state and local regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number

UN0161

14.2 UN proper shipping name

Powder smokeless

14.3 Transport hazard class(es)

1.3C

14.4 Packing group

14.5 Environment hazards

Not available

14.6 Special precautions for user

Not available

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: REGULATORY INFORMATION

HSR100165

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Code of Practice:

Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes:

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Workplace Exposure Limits SIMDUT 2015

CAN Legislation: Bill n. 43 2015, chapter 13, An Act to promote information on the dangerousness of products present in the workplace and to amend the Act respecting occupational health and safety.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

SW revised 07.01.2021

Revision date:

2018-05-18

Revision No.:

0

General information:

This classification has been derived in accordance 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.

Acronyms and Abbreviations used:

CAS CAN	Chemical Abstracts Service
	Canada
EC	European Commission
EU	European Union
IBC	Intermediate Bulk Container
IMDG	International Maritime Dangerous Goods
MARPOL	International Convention for the Prevention of Pollution from Ships
PBT	Persistent, Bioaccumulative and Toxic substance
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC)
	No 1907/2006
STOT	Specific Target Organ Toxicity
TWA	Time Weighted Average
US	United States
vPvB	Very Persistent and Very Bioaccumlative
%wt	Percentage weight

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Disclaimer

The information in this Safety Data Sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. The information contained herein was written based on the best knowledge and experience currently available and is believed to be reliable and up to date as of the date of publication, but no warranty is expressed or implied. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and assume liability for loss, injury, damage or expense due to improper use.