

# Single Base Powders - Accurate SAFETY DATA SHEET March 2022

The following Smokeless Propellants are distributed by Accurate Powders

LT-30 *(EX-2018032025)* LT-32® *(EX-2018032025)* 

1.4C EX Approvals in bold parenthesis

#### **SAFETY DATA SHEET**

Date: February, 2020

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

#### 1.1 Product identifier

Product Name: GD8208, IMR8577

Synonyms: Single base, smokeless powder

File: SDS-18M003

# 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 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)

#### **SECTION 2: HAZARDS IDENTIFCATION**

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

**Explosive Division 1.3** 

Acute oral toxicity - Category 4

Specific target organ toxicity (single exposure) -Category 2

Specific target organ toxicity (repeated exposure) -Category 1

Eye irritation-Category 2B

Carcinogenicity-Category 1A

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:

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Signal word: DANGER

#### **Hazard Statements:**

H203 - Explosive; fire, blast or projection hazard

H302 - Harmful if swallowed

H317 - May cause an allergic skin reaction.

H320 - Causes eye irritation

H350 - May cause cancer

H371 - May cause damage to organs

H372 - Causes damage to organs through prolonged or repeated exposure

#### **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, hot surfaces, sparks, open flame and other ignition sources. No smoking.

P234 - Keep only in original container.

P250 – Do not subject to grinding/shock/.../friction.

P264 - Wash your hands 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 in accordance with local/regional/national/international regulation.

# **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

# 3.2 Mixtures

Chemical name	CAS number	Classification of the substance	GD8208/IMR8577 %wt
Nitrocellulose	9004-70-0	Expl. 1.1 Flammable solid	80-100

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Diphenylamine	122-39-4	Acute toxicity, Oral route-Category 4	0.5-1.5
		Specific target organ toxicity - single	
		exposure - Category 2	
		Specific target organ toxicity -	
		repeated exposure - Category 1	
Potassium sulfate	7778-80-5	This product isn't hazardous according	0.5-1.5
	10 to the day 1,0,000 cars	to the classification criteria.	
Cuanhita	7782-42-5	Carcinogenicity - Category 1A	0.1-1
Graphite	//82-42-5	Specific target organ toxicity -	0.1-1
		repeated exposure - Category 1	
Carbon black	1333-86-4	Eye irritation-Catégorie 2B	0.1-1
		Cancerogenicity-Category 2	
Ethyl glycol	97-50-5	This product isn't hazardous according	3-7
dimethylacrylate		to the classification criteria.	
ullileti iylati ylate			

The actual concentration range is withheld as a trade secret.

#### **SECTION 4: FIRST AIDS MEASURE**

#### 4.1 Description of first aid measures

Inhalation	Move victim to fre	sh air. If br	

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

Eye contact Keeping eyes open, rinse immediately with running water for at least 15 minutes.

If eye irritation persists: Get medical advice/attention.

Ingestion Call a POISON CENTER or doctor if you feel unwell.

# 4.2 Most important symptoms and effects, both acute and delayed

May cause cancer after exposure. Causes eye irritation. Specific target organ toxicity (single exposure) category 2 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.

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#### **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

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

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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

#### **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	Not available	Not available	
Diphenylamine	122-39-4	10 mg/m³	10 mg/m <sup>3</sup>	
Potassium sulfate	7778-80-5	Not available	Not available	

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Graphite	7782-42-5	2 mg/m³	2.5 mg/m <sup>3</sup>	
Carbon black	1333-86-4	3.5 mg/m <sup>3</sup>	3.5 mg/m <sup>3</sup>	
Ethyl glycol dimethylacrylate 97-50-5		Not available	Not available	

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

#### **Biological limit values**

No biological exposure limits noted for the ingredient(s)

#### **8.2 Exposure controls**

**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.

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

frequently

Nitrile gloves Hand protection

If insufficient ventilation use a dust mask or a cartridge respirator Respiratory protection

Always observe good personal hygiene measure, such as washing after General hygiene consideration

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

Black or yellow granular solid **Appearance** 

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**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

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/cm<sup>3</sup>

Solubility(ies)

Not available

**Partition coefficient** 

Not available

(n-octanol/water)

**Auto-ignition temperature** 

170°C(338°F)

**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

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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.

#### 10.5 Incompatible materials

Strong acids and alkalis

#### 10.6 Hazardous decomposition products

Nitrogen and carbon oxides

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

#### 11.1 Information on toxicological effects

Product	Species	LC50	LD50 oral	LD50 dermal
Nitrocellulose	Rat	NA	5000mg/kg	NA
Diphenylamine	Rat	NA	NA	NA
Potassium sulfate	NA	NA	NA	NA
Graphite	Rat	>64mg/L	10000 mg/kg	NA
Carbon black	NA	NA	NA	NA
Ethyl glycol	NIA.	210	NIA.	NIA
dimethylacrylate	NA	NA	NA	NA

Acute toxicity

Acute oral toxicity - Category 4

Skin corrosion/irritation

Respiratory sensitization

Based on available data the classification criteria are not met.

Serious eye

Causes eye irritation

damage/irritation

Based on available data the classification criteria are not met.

Skin sensitization

Based on available data the classification criteria are not met.

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Germ cell mutagenicity This product or ar

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.

toxicity-single exposure

Specific target organ Specific target organ Specific toxicity-repeated exposure

Specific target organ toxicity (repeated exposure) -Category 1

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

**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** Acute toxicity

# **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

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#### 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.

#### 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

II

# 14.5 Environment hazards

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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**

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

Not available

#### 15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

# **SECTION 16: OTHER INFORMATION**

Revision date:

2020-02-05

Revision No.:

1

#### 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.

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#### Acronyms and Abbreviations used:

CAS Chemical Abstracts Service

CAN Canada

EU 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

#### 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.