

# SAFETY DATA SHEET



## MAX PROJECTILES

HD70120-02 Version 1.1

Date Compiled: 15/11/2021

Revised: 23/01/2024

Prior to use, ensure this document is the most recent version.

COMPANY PROPRIETARY INFORMATION

### SECTION 1 – PRODUCT & COMPANY INFORMATION

**Product Name:** Byrna Max Projectiles (1% OC / 8% CS)

**Reference Number:** MJMF1371

**Identification:** Slightly granular fine white powder

**Packaging:** Blue and grey projectile rounds in bulk or branded plastic tube/jars/tub.

Plastic tube size: 5 rounds.

Plastic jar sizes: 25 rounds, 95 rounds, 400 rounds.

Plastic tub size: 500 rounds.

Bulk: 2kg powder packed in a white plastic container.

**Product use:** Incapacitant Projectile containing highly irritant substance.

**Company name and contact information:**

Company name: Byrna SA (Pty) Ltd

49 Robberg Close, N4 Gateway Industrial Park, Pretoria, 0184, South Africa

Tel: +27 86 182 0031

### SECTION 2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture:

**Hazard Statements for GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):**

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Skin sensitization (category 1), H317

Specific target organ toxicity – single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statement mentioned in this Section, see Section 16.

Precautionary statements:

General: **CAUTION: This material is an eye, dermal & mucous membrane irritant.**

This material is intended for use as an incapacitating agent.

This material is a potentially hazardous mixture according to Regulation (EC) No. 1272/2008.

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P261	Avoid breathing in dispersed material/dust.
P264	Wash hands and other exposed skin thoroughly after handling.
P271	Do not expose indoors or in areas not ventilated mechanically or by design.
P272	Do not remove contaminated work clothing or PPE from the work area.
P280	Wear protective gloves. Wear eye or face protection. Wash hands thoroughly after handling.
Response: (P302 + P352)	IF ON SKIN: Remove any residual powder from the skin in a dry manner. Rinse with plenty of clean water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Wash the affected area with a mild soap and clean water.
(P304 + P340)	IF INHALED: Move the afflicted person away from the exposure to fresh air and allow to rest if breathing is not compromised.
(P305, P351 + P338)	IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do.
P312	Call a Poison Centre or medical practitioner if feeling unwell.
P333 + P313	Should skin rash or signs of skin irritation be observed, seek medical attention.
P337 + P313	If eye irritation is persistent after removal from exposure, consult an eye specialist practitioner.
P362	Remove any contaminated clothing or PPE and clean suitably by washing or with alternative cleansing before reuse.
Storage (P403, P233 + P405):	Store in a well-ventilated access-controlled area equipped with locks. Keep containers tightly sealed when not in use.

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Disposal (P501):	Dispose of contents/containers to an approved waste disposal point/site. Do not mix hazardous waste with general waste.
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### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/mixture:** Mixture

Active Ingredient name	%*	CAS
Ortho-chlorobenzylidene malonitrile (CS)	8	2698-41-1
Silicon dioxide	1 – 2	112945-52-55, 7631-86-9
Capsaicin	1	404-86-4

\*Any concentration shown as a range is to protect confidentiality or is due to batch variation.

The remainder of the composition is a proprietary blend of inert carrier and dispersing powder agent. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### SECTION 4 – FIRST AID MEASURES

#### Oral Exposure by Ingestion

This is an unintended and unlikely potential route of exposure. In the event of ingestion, have patient rinse mouth with water. Never give anything by mouth to an unconscious person and do not induce vomiting.

Assume the victim will experience acute non-specific airway reaction because of the ingestion: seek medical attention or contact a poison control centre.

Consult a medical practitioner /doctor if feeling unwell.

#### Inhalation Exposure

Move patient away from exposure to fresh air to allow respiration distress to subside. Respiration distress may include symptoms of coughing, sternutation, shortness of breath, stinging in the eyes and nose, burning sensation on skin and potentially nausea and vomiting. If breathing difficulty persists, seek medical attention and oxygen support if necessary. If the patient is not breathing, start artificial respiration.

#### Skin Exposure

Remove any residual powder from the skin in a dry manner.

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Rinse the affected area with clean, cool water, and wash with a mild soap before rinsing the affected area again. Do not apply ointments or dressings to the affected areas. If an allergic reaction takes place or a burning sensation persists, consult a medical practitioner/doctor.

### Eye Exposure

Rinse out with the affected eye(s) using a large amount of clean water with the eyelid held wide open. Consult a medical practitioner/doctor if eye irritation persists for an abnormal amount of time.

### Medium term effects

The redness of exposed skin, eyes and stinging sensation normally subside after approximately half an hour. Using cool water to rinse off exposed areas and keeping the patient in a well-ventilated area exposed to cool air may further reduce symptoms.

### Specific considerations for medical practitioners

Inhalation of this substance may aggravate/trigger acute episodes of existing respiratory conditions including chronic asthma. Skin exposure in individuals who have pre-existing dermal conditions may trigger aggravated symptoms. Consider the victim of exposure to be experiencing acute non-specific upper airway reaction.

## SECTION 5 – FIRE FIGHTING MEASURES

Non-flammable material.

### Suitable extinguishing media:

Carbon dioxide, dry powder, foam, or water as appropriate to environment. Toxic fumes may evolve during combustion, including carbon oxides or nitrogen oxides.

Collect contaminated extinguishing water/residue separately, do not allow to reach sewage or effluent systems. Cool endangered containers with water-spray.

Firefighters should wear self-contained breathing apparatus if possible.

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### SECTION 6 – ACCIDENTAL RELEASE MEASURE

#### METHODS FOR SPILL CLEANUP

In the event of an accidental spill/release:

Wear appropriate PPE including suitable respirators (NIOSHA approved or equivalent) with adequate filters, disposable coveralls/barrier clothing, eye protection (face shield or safety glasses) & gloves (Rubber, neoprene or PVA).

Evacuate the area where accidental spill/release has occurred.

If possible, introduce mechanical ventilation to the area to reduce the exposure concentration. If the concentration exceeds recommended limits of exposure, clean-up personnel should wear self-contained breathing apparatus and full protective clothing to mitigate incapacitating effects of the capsaicin containing material.

Contain any spillage and collect powder material using suitable dust binding agents and transfer to a waste disposal container that can be tightly sealed.

Waste Disposal Measures: Not considered a hazardous waste as referenced in 40 CFR 261.24 or 261.3.

Dispose contents/container to a special waste collection point.

### SECTION 7 – HANDLING AND STORAGE

Keep this product in a well-ventilated cool, dry place away from direct sunlight and excess moisture.

Always store in tightly sealed containers.

Only trained personnel may handle opened containers of material, in a ventilated/exhausted facility. Contact with skin and eyes should be avoided.

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Remove all soiled and contaminated clothing before exiting handling area to avoid contamination of other areas.

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### SECTION 8 – EXPOSURE CONTROLS / PPE

This material does not contain substances that have been listed with occupational exposure limit values.

Use of appropriate PPE is mandatory:

Dust masks: Advised for handling of sealed containers (P/N95 or equivalent)

When handling exposed material:

Respirator devices with suitable filters: To be used when handling exposed material. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respirator cartridges of type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) is advised.

Use appropriate eye protection (tightly sealed goggles/face shield) and suitable impermeable gloves for handling material.

### SECTION 9 – PHYSICAL/CHEMICAL PROPERTIES

<b>Product type:</b>	Highly irritant powder
<b>Other:</b>	Indicated for use as filler in incapacitating rounds
<b>Physical State:</b>	Powder
<b>Colour:</b>	White
<b>Odour:</b>	Stinging/burning
<b>pH:</b>	No data
<b>Melting point/freezing point:</b>	No data
<b>Normal boiling point:</b>	No data
<b>Flash point:</b>	No data
<b>Evaporation rate:</b>	No data
<b>Flammability:</b>	No data
<b>Upper/Lower flammability or explosive limits:</b>	No data
<b>Vapor pressure:</b>	No data

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<b>Vapor density:</b>	No data
<b>Relative density:</b>	No data
<b>Bulk density:</b>	0.65 – 0.85 g/cm <sup>3</sup>
<b>Water solubility:</b>	Sparingly partially soluble in water
<b>Partition coefficient (n-octanol/water):</b>	No data
<b>Auto-ignition temperature:</b>	No data
<b>Decomposition temperature:</b>	No data
<b>Viscosity:</b>	No data
<b>Explosive properties:</b>	No data
<b>Oxidizing properties:</b>	No data

### SECTION 10 – STABILITY AND REACTIVITY

**Stability:** This powder is stable under ordinary ambient conditions of use and sealed storage when no decomposition is expected.

Specific reactivity data is not available.

**Incompatibility:** Strong oxidising agents.

**Possible hazardous decomposition products:** When heated to decomposition temperature of Calcium carbonate (825°C), calcium oxide fumes may be emitted and liberate carbon dioxide.

No risk of hazardous Polymerization.

**Incompatibilities:** Acids, fluorine, magnesium with hydrogen.

**Conditions to avoid:** Exposure to sources of heat, ignition, and moisture. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Keep packaging sealed.

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### SECTION 11 – TOXICOLOGICAL INFORMATION

Acute LD<sub>50</sub>: No Data Available

Potential routes of entry: Inhalation, skin exposure and eye/mucous membrane exposure. Exposure via these routes may cause temporary pain, discomfort, and redness of affected areas/organs. Prevent inhalation/ingestion of particles.

Carcinogenicity: No components of this mixture are listed as a carcinogen by IARC, NPT, OSHA or ACGIH.

Sensitization: May cause allergic respiratory and skin reactions. Toxic if swallowed.

Ortho-chlorobenzylidene malononitrile is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Exposure guidelines:  
1000ppm, 8hours.

#### Literature toxicity data for individual ingredients constituting over 1% by weight recalculated for the amounts present in this material:

Material	LD <sub>50</sub> *
CAPSAICIN	47.2 mg/kg
ORTHO-CHLOROBENZYLIDENE MALONONITRILE	178 mg/kg
SILICON DIOXIDE	>5,000 mg/kg

\*LD<sub>50</sub> literature values based on mouse animal toxicity studies (oral administration), as published in scientific literature and/or provided by the manufacturer.

### SECTION 12 – ECOLOGICAL INFORMATION

Environmental fate/toxicity: No data available.

Mobility in soil: Practically insoluble in cold water.

This product should not be released into the environment.

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This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher

### SECTION 13 – DISPOSAL CONSIDERATIONS

Remove waste in accordance with local and/or national regulations. Make use of a licensed waste disposal service provider to dispose of this material. Do not mix with other waste. Do not let product enter drains. Dispose any contaminated packaging/containers as unused product.

### SECTION 14 – TRANSPORT INFORMATION

Follow local and/or international shipping guidelines when shipping by land, sea & rail freight transport.

**Transport hazard class(es):**

IATA Classification UN number: UN2811 and UN3448

Hazard class: Hazard Class 6.1

Packaging group: III

### SECTION 15 – REGULATORY INFORMATION

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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### SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

### Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act

### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## SECTION 16 – OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H334 May cause allergy/asthma symptoms/breathing difficulties if inhaled.

H335 May cause respiratory irritation.

Skin Irrit. Skin irritation

Skin Sens. Skin sensitization

### HMIS Rating

Health Hazard: 2

Chronic Health Hazard: \*

Flammability: 0

Physical Hazard: 0

### NFPA Rating

Health Hazard: 2

Fire Hazard: 0

Reactivity Hazard: 0

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The information and statements provided in this publication is based on current knowledge and experience. They do not however represent any assurance towards properties of the product within the sense of liability, guaranty regulations and thus are given without any obligation. Compliance with all applicable laws & regulations should be ensured and all third-party rights must be observed.

The information provided here is for guidance applicable to handling bulk products and to readily identify toxicity & safety data. While this SDS is based on technical data judged to be reliable, Byrna and the manufacturer assumes no responsibility for the completeness or accuracy of the information contained herein.

Safety information is under continuous review.