



# SAFETY DATA SHEET

## MEGAPRIME BLADE®

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Product name:** MEGAPRIME BLADE®

**Synonym(s):** MEGAPRIME BLADE

#### 1.2 Uses and uses advised against

**Use(s):** DETONATING CORD • INITIATING EXPLOSIVE CHARGE

#### 1.3 Details of the supplier of the product

**Supplier name:** JOHNSON HI-TECH (AUSTRALIA) PTY LTD

**Address:** Level 1, 63 Abernethy Road, Belmont WA 6104 AUSTRALIA

**Telephone:** +61 8 6250 8200

**Fax:** +61 8 6250 8299

**Email:** info@johnex.com.au

**Website:** www.johnex.com.au

#### 1.4 Emergency telephone number(s)

**Emergency:** 1800 014 100

**SDS Date:** 19 Feb 2021

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS PER THE GLOBALLY HARMONISED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICAL (GHS) INCLUDING WORK, HEALTH AND SAFETY REGULATIONS, AUSTRALIA.

Classified as Dangerous Goods by the criteria of the Australian Code for the Transport of Explosives by Road and Rail: DANGEROUS GOODS.

This material is hazardous per Safe Work Australia; HAZARDOUS SUBSTANCE.

**GHS classification(s):** Explosives: Division 1.1

#### 2.2 Label elements

**Signal word:** DANGER

**Pictogram(s):**



#### Hazard statement(s)

H201 Explosive; mass explosion hazard.

#### Prevention statement(s)

P210 Keep away from heat / sparks / open flames / hot surfaces - no smoking.  
 P230 Keep wetted with water.  
 P240 Ground / bond container and receiving equipment.  
 P250 Do not subject to grinding / shock / friction / impact / electrical energy from extraneous source (lighting, static electricity, stray currents, galvanic electricity or electromagnetic radiation) or any form of heating.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

#### Response statement(s)

P370 + P380 In case of fire: Evacuate area.

P372 Explosion risk in case of fire.

P373 DO NOT fight fire when fire reaches explosives.

#### Storage statement(s)

P401 Store in accordance with AS2187.1 in a well-ventilated magazine suitably licensed for Class 1.1D Explosives.

#### Disposal statement(s)

P501 Dispose of contents/ container in accordance with local/regional/national/international regulations.

#### 2.3 Other hazards

No information provided.

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

#### 3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
Pentaerythritol tetranitrate (PETN)	78-11-5	-	10-80%
Non-hazardous component(s)	-	-	to 100%

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**Inhalation** Remove victim from area of exposure - avoid becoming a casualty. Seek medical advice if effects persist.

**Skin Contact** If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. If irritation occurs seek medical assistance.

**Eye Contact** If in eyes, wash out immediately with water. In all cases of eye contamination, it is a sensible precaution to seek medical advice.

**Ingestion** Rinse mouth with water. If swallowed, give a glass of water to drink. Do not induce vomiting. If vomiting occurs give further water. Seek medical assistance.

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

See Section 11 for more detailed information on health effects and symptoms.

#### 4.3 Immediate medical attention and special treatment needed

Treat symptomatically. Where ingestion of the PETN has occurred, blood pressure may be lowered due to vasodilatory effects of the material. Maintain blood pressure by fluid administration. May cause methemoglobinemia. Treat as for exposure to nitrates.

## 5. FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

DO NOT FIGHT FIRES. Immediately isolate area and evacuate personnel to safe distance.

### 5.2 Special hazards arising from the substance or mixture

Explosive material. Avoid all ignition sources. Risk of explosion by shock, friction, fire or other sources of ignition. In case of all fires involving detonating cord, evacuate the area immediately and evacuate up wind of fire. DO NOT FIGHT FIRES.

On burning this product may emit toxic and/or irritating fumes including those of oxides of carbon and oxides of nitrogen.

### 5.3 Advice for firefighters

Mass explosion hazard. Severe detonation hazard when exposed to heat. In case of small fire where the actual explosive is not involved, carefully remove explosives to a safe distance, otherwise evacuate area immediately and allow to burn. On burning, will emit toxic fumes, including those of lead. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

### 5.4 Hazchem code

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## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Shut off all possible sources of ignition. Clear area of all unprotected personnel. Avoid friction and impact. Wear protective equipment to prevent skin and eye contact.

### 6.2 Environmental precautions

Prevent product from entering drains and waterways.

### 6.3 Methods of cleaning up

Handle with care. Collect and seal in properly labelled containers. Use a spark free shovel. In the case of a transport accident notify the Police, Explosives Inspector and JOHNEX Explosives.

### 6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Only properly qualified and authorised personnel should handle and use explosives. Avoid skin and eye contact. Do NOT subject the material to impact, friction between hard surfaces, nor to any form of heating. Protect ends of cords from contact with moisture, and oil. Handle with care.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated magazine suitably licensed for Class 1.1D explosives. Store away from sources of heat or ignition. Store in a cool, dry, well ventilated place and out of direct sunlight and away from incompatible materials. Keep containers closed when not in use - check regularly for spills. Have appropriate fire extinguishers available in and near storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Do not subject materials to impact, friction and strong shock.

### 7.3 Specific end use(s)

No information provided.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

#### Exposure standards

No value assigned for this specific material by Safe Work Australia

#### Biological limits

No biological limit values have been entered for this product.

### 8.2 Exposure controls

**Engineering controls** Natural ventilation should be adequate under normal use conditions.

#### PPE

Wear standard safety equipment – overalls, safety shoes, safety glasses and gloves of impervious material. Avoid inhalation of dust particles and fumes from detonation. Avoid eye contact and repeated or prolonged skin contact. Always wash hands before smoking, eating, drinking or using the toilet.

**Eye / Face** Wear dust-proof goggles.

**Hands** Wear PVC or rubber gloves.

**Body** Wear coveralls.

**Respiratory** Not required under normal conditions of use.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	FLEXIBLE CORD WITH A WHITE POWDER CORE. OUTER COVERINGS OF TEXTILES OR PLASTICS
<b>Colour</b>	VARIOUS
<b>Odour</b>	ODOURLESS
<b>Flammability</b>	EXPLOSIVE
<b>Melting point</b>	140 C (PETN)
<b>Solubility (water)</b>	INSOLUBLE
<b>Specific gravity</b>	1.77 (for PETN)
<b>Flash point</b>	NOT AVAILABLE
<b>Flammability Limits (%)</b>	N/A Explosive material. Do not subject the material to impact, sparks or heating.
<b>Autoignition temperature</b>	May explode when subjected to fire or shock. Avoid toxic fumes from fire.
<b>Decomposition point</b>	> 150 C (for PETN)
<b>9.2 Other information</b>	
<b>% Volatiles</b>	0 %

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

### 10.2 Chemical stability

Explosive material. Avoid ignition sources, static electricity discharge and friction. Detonation may occur from impact, friction, or excessive heating.

### 10.3 Possibility of hazardous reactions

Polymerization will not occur.

### 10.4 Conditions to avoid

Avoid exposure to heat, sources of ignition, and open flame. Avoid exposure to moisture. Avoid build-up of static electricity. Avoid contact with other chemicals. Do not subject to friction. Avoid impact.

### 10.5 Incompatible materials

Incompatible with combustible materials. PETN is incompatible with oxidising agents, reducing agents, acids and alkalis.

### 10.6 Hazardous decomposition products

Explosive material. Detonation may occur from heavy impact or excessive heating, particularly under confinement. Gases produced may contain carbon

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monoxide and nitrogen oxide.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

The construction of these articles should prevent any chemical contamination. No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

<b>Ingestion</b>	Ingestion is unlikely due to the form of product. Swallowing can result in nausea, vomiting, diarrhoea, and abdominal pain. Swallowing large amounts may result in headaches, dizziness and a reduction in blood pressure. If ingested, rinse mouth with water. Give plenty of water to drink. Obtain medical attention immediately.
<b>Eye Contact</b>	May be an eye irritant. If affected, irrigate with copious quantities of water.
<b>Skin Contact</b>	Excessive skin contact may cause dermatitis and sensitisation. PETN is a vasodilator. If affected, thoroughly wash contaminated skin with soap and water. Shrapnel from detonation may cause burns and wounds to the skin and eyes.
<b>Inhalation</b>	Inhalation of PETN may result in respiratory irritation. Inhalation may result in headache or dizziness as a result of dilation of the blood vessels and a subsequent reduction of blood pressure.

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity

Avoid contaminating waterways.


## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Waste disposal** Dispose of under direct supervision of a qualified person per local, state and federal regulations. In all circumstances, detonation is the preferred method of disposal. For small quantities, place in a blast hole and explode during blasting.

## 14. TRANSPORT INFORMATION

CLASSIFIED AS DANGEROUS GOODS BY THE CRITERIA OF THE AUSTRALIAN CODE FOR THE TRANSPORT OF EXPLOSIVES BY ROAD AND RAIL.

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
			
<b>14.1 UN Number</b>	0065	0065	0065
<b>14.2 Proper Shipping Name</b>	CORD, DETONATING	CORD, DETONATING	CORD, DETONATING

<b>14.3 Transport Hazard Class</b>	1.1D Explosive	1.1D Explosive	1.1D Explosive
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### Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.  
DANGEROUS GOODS

## 15. REGULATORY INFORMATION

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

<b>Poison schedule</b>	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
<b>Classifications</b>	Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals. The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)]. Explosives - Division 1.1
<b>Hazard codes</b>	E Explosive
<b>Hazard Statements</b>	H201 Explosive: mass explosion hazard
<b>Risk phrases</b>	R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition.
<b>Safety phrases</b>	S35 This material and its container must be disposed of in a safe way.
<b>Inventory listing(s)</b>	<b>AUSTRALIA: AICS (Australian Inventory of Chemical Substances)</b> All components are listed on AICS, or are exempt.

## 16. OTHER INFORMATION

### Additional information

**EXPLOSIVES & BLASTING AGENTS:** Refer to Local State and Federal legislation that specifically relates to the use of Explosives. Users of products described in this report are advised to ensure familiarity and compliance with the appropriate legal requirements (e.g. Regulations) prior to the use of this product. Where any further information is required, users may contact their local authority in Explosives and Dangerous Goods.

**EXPLOSIONS:** Fires involving explosives or explosive mixtures may undergo further explosions and rapid propagation. Police and emergency personnel should be notified immediately. Evacuate individuals to a safe sheltered area at least 800 metres away. If possible remove vehicles and further heat and ignition sources from the area. Do not return to areas until at least one hour after fire and explosions have ceased.

**EXPLOSIONS:** For further information please refer to Australian Standard 1216, for classification of explosives and Local and Federal Explosive and Dangerous Goods legislation (Act and Regulations).

**EXPLOSIVES -BURNING SAFETY:** Note: Disposal in a blast with fresh explosives may be preferable to burning.

- Make a sawdust (or newspaper) trail 450mm wide and ~20mm deep in the direction of the wind. The trail should be 2m longer than necessary.
- Place the cartridges on the sawdust (or paper), they may be touching, but not piled on top of each other

- (c) Individual trails should be no closer than 2m and should not contain more than 12kgs of explosives.
- (d) Trails should be side by side, not in a line. No more than 4 should be set up at one time.
- (e) Remove explosives not being burnt, to at least 300m away, unless the material can be stored behind something substantial.
- (f) Thoroughly wet the trail with kerosene or diesel (never petrol or any other highly flammable liquid). Use at least 2L of fuel per 10m of trail.
- (g) Light the trail from a long rolled paper wick, place down wind and contact the 2m of trail which is not covered by explosives. The flame should blow away from the unburned explosives otherwise preheating and detonation may occur.
- (g) Use a plastic igniter if available instead of paper. Coil one end into the sawdust or under the paper and light the other end from a minimum distance of 7m away from the trail.
- (h) Move away at least 300m. Do not return for a period of at least 30mins after burning has finished.
- (j) If the fire goes out, do not approach for at least 15mins. Do not add kerosene or diesel oil unless certain that the flame is completely extinguished.
- (k) Bury the residue as it is poisonous to livestock.

TWA Time Weighted Average

#### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

#### HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

#### Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value

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