

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Identifier:

Product Name: MAXPRIME BOOSTERS

Other Means of Identification:

Synonyms: MAXPRIME, MAXPRIME 400g, MAXPRIME 150g, MAXPRIME SPUTNIK Uphole 250g

Proper Shipping Name: BOOSTERS without detonator

Recommended Use of the Chemical and Restrictions on Use:

Recommended Use: Initiation of explosive charge

Restrictions on Use: No information available

Supplier's Details:

Supplier's Name: Nitro Sibir Australia

Address: Suite 3, Level 1, 1 Puccini Court
Stirling WA 6021

Telephone: +61 8 9022 3821

Emergency Telephone Number:

Emergency Number: 1800 884 289 (all hours)

SDS Date: April 2022

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture:

Classified as hazardous according to the criteria of Safe Work Australia: HAZARDOUS CHEMICAL

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

GHS Label Elements, Including Precautionary Statements:

Explosives – Division 1.1

Acute Oral Toxicity - Category 3

Acute Dermal Toxicity – Category 3

Acute Inhalation Toxicity – Category 3

Specific target organ toxicity (repeated exposure) – Category 2

Hazardous to the Aquatic Environment (Chronic) – Category 2

Signal Word: Danger



Exploding Bomb



Skull and Crossbones



Health Hazard



Environment

Hazard Statement(s):

H201: Explosive; mass explosion hazard

H301: Toxic if swallowed

H311: Toxic in contact with skin

H331: Toxic if inhaled

H373: May cause damage to organs through prolonged or repeated exposure

H411: Toxic to aquatic life with long lasting effects



Precautionary Statement(s):

Prevention:

- P210: Keep away from heat/sparks/open flames/surfaces - No Smoking.
- P234: Keep only in original packaging.
- P240: Ground/bond container and receiving equipment.
- P250: Do not subject to grinding/shock/heat/friction/impact or electrical energy from external sources.
- P260: Do not breathe dust.
- P270: Do not eat, drink or smoke when using this product.
- P271: Use only outdoors or in a well-ventilated area.
- P280: Wear protective gloves, protective clothing, eye and face protection.
- P264: Wash hands thoroughly after handling.
- P273: Avoid release to the environment.

Response:

- P370+P380: In case of fire: evacuate area.
- P372: Explosion risk in case of fire.
- P373: DO NOT fight fire when fire reaches explosives.
- P301+310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
- P321: Specific treatment (see First Aid Measures on Safety Data Sheet).
- P330: Rinse mouth.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P314: Get medical advice/attention if you feel unwell.
- P361+P364: Take off immediately all contaminated clothing and wash it before reuse.
- P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P311: Call a POISON CENTRE or doctor/physician.
- P391: Collect spillage.

Storage:

- P401: Store in a well-ventilated magazine licensed for Class 1.1D Explosives in accordance with Australian Standard AS2187.1
- P403+P233: Store in a well-ventilated place. Keep container tightly closed.
- P405: Store locked up.

Disposal:

- P503: Refer to manufacturer/supplier for information on disposal/recovery/recycling.
- P501: Dispose of contents in accordance with national/regional/local regulations.

POISONS SCHEDULE (SUSMP): None allocated.

Other Hazards Which Do Not Result in Classification:

No information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS No	Proportion
Pentaerythritol tetranitrate (PETN)	78-11-5	<10%
Trinitrotoluene (TNT)	118-96-7	30-60%
Cyclonite (RDX, Cyclo-trimethylenetrinitramine)	121-82-4	30-60%
Materials determined not to be hazardous	Not applicable	to 100%

4. FIRST AID MEASURES

Description of Necessary First Aid Measures:

General Advice:	For advice, contact a doctor or Poisons Information Centre (131 126).
Inhalation:	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. If symptoms develop, seek medical attention.
Eye:	Dust from product may cause eye irritation. If in eyes, wash out immediately with running water. Continue flushing for several minutes. In all cases of eye contamination, it is sensible to seek medical advice and/or attention.
Skin:	If contact with skin or hair occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. Components of this material can be absorbed through the skin with resultant toxic effects. Seek immediate medical assistance. If swelling, redness, blistering or irritation occurs seek medical assistance.
Ingestion:	Immediately rinse mouth with water. If swallowed DO NOT induce vomiting. Seek immediate medical assistance.

Most Important Symptoms/Effects, Acute and Delayed:

Symptoms and Effects:	Treat symptomatically. Explosive material. PETN is a vasodilator. May cause methemoglobinemia.
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Indication of Immediate Medical Attention and Special Treatment, if Necessary:

Information to Doctor:	Treat as for exposure to nitrates. The smooth muscle relaxant effect of nitrate salts may lead to headache, dizziness and marked hypotension.
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5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Suitable Extinguishing Media:	DO NOT FIGHT FIRES involving explosives. Immediately isolate and evacuate personnel to a safe distance.
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Unsuitable Extinguishing Media:	Not applicable – DO NOT FIGHT FIRES involving explosives.
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Specific Hazards Arising from the Chemical:

Specific Hazards:	Explosive material. Eliminate all ignition sources. Risk of explosion by shock, friction, fire or other sources of ignition.
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On burning under confined or semi-confined conditions, some oxides of nitrogen and/or carbon monoxide will be present.

Hazards from Combustion Products:	Evacuate upwind as toxic fumes may be generated as the product decomposes. Brown fumes indicate the presence of oxides of nitrogen.
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Special Protective Actions for Fire Fighters:

Precautions and Special Protective Equipment:	Mass explosion hazard. A major fire may involve the risk of explosion. An adjacent detonation may also involve the risk of explosion.
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HAZCHEM CODE:	E
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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

For Non-Emergency Personnel:	Prior to clean up of a spill, eliminate all sources of ignition. Clear the area of all personnel and evacuate to a safe area.
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MAXPRIME BOOSTERS

SAFETY DATA SHEET – INITIATION SYSTEMS

In the case of a transport accident notify the emergency services, Explosives Inspector and Nitro Sibir Australia.

For Emergency Personnel: Explosive material. Eliminate all sources of ignition. Surplus or defective explosives must not be placed in any waterway, buried, thrown away, discarded or placed with rubbish. Destruction of explosives must be carried out by suitably qualified personnel. In all cases, detonation is the preferred method of disposal.

Environmental Precautions:

Environmental Precautions: Contain the source and prevent the spread of the spill to ensure it does not contaminate drains and waterways.

Methods and Materials for Containment and Cleaning Up:

Methods for Containment: Prevent run off into drains and waterways. Clean up immediately.

Methods for Cleaning Up: Contain the spill and ensure that material does not enter any drains or waterways. Collect with non-metallic, anti-spark implements and place in properly labelled, clean, approved containers. Keep containers closed and stored in a licenced magazine for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

Advice for Safe Handling: Handle with great care. Avoid skin and eye contact. DO NOT subject the material to impact, friction, heat or fire. Keep containers closed when not in use. Wear appropriate personal protective equipment. Avoid contamination with other materials. Do not attempt to disassemble.

General Hygiene Advice: Handle in accordance with good industrial hygiene and safety practices. Observe good personal hygiene. Wash hands before breaks and immediately after handling the product.

Conditions for Safe Storage Including any Incompatibilities:

Conditions for Safe Storage: Store in a cool, dry well-ventilated magazine licenced for Class 1.1D explosives. Do not store with other explosive products that have an incompatible hazard classification ie. high explosives should never be stored with detonators.

Keep containers closed when not in use. Keep securely sealed and protected against physical damage. Inspect regularly for spills.

Storage Incompatibilities: Incompatible with combustible materials and oxidising substances.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters:

Exposure Limits: No exposure value has been assigned to this material by Safe Work Australia, however for constituent(s) and decomposition product(s):

2,4,6-Trinitrotoluene (TNT): 8hr TWA – 0.5mg/m³, Notice: Sk

Cyclonite (RDX): 8hr TWA – 1.5mg/m³, Notice: Sk

Nitrogen Dioxide: 8hr TWA – 5.6mg/m³ (3ppm), 15min STEL – 9.4mg/m³ (5ppm)

TWA – 8-hour time-weighted average (TWA) means the maximum average airborne concentration of a substance when calculated over an eight-hour working day, for a five day working week.

STEL (Short Time Exposure Limit) – The average airborne concentration over a 15-minute period which should not be exceeded at any time during a normal eight-hour working day.

Sk Notice – Absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

Appropriate Engineering Controls:

Engineering Controls: Use in a well-ventilated area. Provide sufficient ventilation to keep airborne levels below the exposure limits. Keep products in the original packaging when not in use to prevent exposure to external stimuli.

Individual Protection Measures, such as Personal Protective Equipment (PPE):

Individual Protection Measures: A detailed and documented risk assessment must be carried out to determine minimum PPE requirements.

Wear protective clothing, safety glasses and impervious gloves when handling and using this product. If an inhalation risk exists as determined by a risk assessment, wear an appropriate dust mask or respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties and Safety Characteristics:

Physical State:	Solid, article, explosive compound contained within a cylindrical cardboard or plastic shell of various colour
Colour:	Tan to brown (explosive compound)
Odour:	Mild
Odour Threshold:	Not available
Melting / Freezing Point:	Not available
Initial Boiling Point and Boiling Range:	Not available
Flammability:	Not available
Lower / Upper explosion limit / flammability limit	Not available
Flash Point:	Not applicable
Auto-ignition temperature:	Not available
Decomposition Temperature:	Not available
pH:	Not applicable
Kinematic Viscosity:	Not applicable
Solubility:	Not soluble in water
Partition Coefficient:	Not applicable
Vapour Pressure:	Not applicable
Relative Density:	1.5-1.6 g/cm ³
Vapour Density:	Not applicable
Particle Characteristics:	Not available
Explosive Properties:	Explosive; mass explosion hazard
Further Safety Characteristics:	No information available.



10. STABILITY AND REACTIVITY

Reactivity:

Explosive article.

Chemical Stability:

Stable under recommended conditions of storage. Extreme risk of explosion from shock, friction, fire or other sources of ignition, especially under conditions of confinement.

Possibility of Hazardous Reactions:

Hazardous polymerisation will not occur. A major fire may involve the risk of explosion. An adjacent detonation may also involve the risk of an explosion. Heating can cause expansion or decomposition of the material which can lead to containers exploding.

Conditions to Avoid:

Avoid exposure to heat, sources of ignition, open flame, shock and friction. Do not subject to grinding, shock or friction. Avoid contact with other chemicals. Protect from moisture. Do not attempt to disassemble.

Incompatible Materials:

Incompatible with combustible materials and oxidizing substances.

Hazardous Decomposition Products:

Thermal decomposition may result in the release of irritating and/or toxic fumes of nitrogen and carbon.

11. TOXICOLOGICAL INFORMATION

General Advice:

No adverse health effects are expected if the product is handled in accordance with this Safety Data Sheet and the product label.

Acute Toxicity:

Toxic if swallowed, in contact with skin, or if inhaled.

Information on Likely Routes of Exposure:

Skin corrosion / irritation: Skin contact may cause irritation and skin sensitisation in sensitive persons. Components of this product can be absorbed through the skin with resultant toxic effects.

Serious eye damage / irritation: Not a likely route of exposure. Not expected to cause eye damage or irritation.

Respiratory or skin sensitisation: Inhalation of dust may result in headache, nausea and irritation of the respiratory tract.

Germ cell mutagenicity: This material is not classed as a mutagen.

Carcinogenicity: There is no information available for this product.

Reproductive toxicity: Not classified as a reproductive toxin.

Specific target organ toxicity (STOT): **Single exposure** – Due to the encapsulation of the product, exposure to the hazardous components is not expected when handled appropriately in normal use. Inhalation of dust may cause breathing difficulties and a reduction in blood pressure. Exposure to high doses may cause methaemoglobinemia.

Specific target organ toxicity (STOT): **Repeated exposure** – Exposure to component TNT may cause damage to organs through prolonged or repeated contact however exposure to product is not considered likely due to the construction of the article.

Aspiration hazard: This material is not considered an aspiration hazard.

SAFETY DATA SHEET – INITIATION SYSTEMS

Symptoms Related to the Physical, Chemical and Toxicological Characteristics:

Skin Contact: No information available.

Inhalation: May cause irritation to mucous membranes and the respiratory tract.

Delayed and Immediate Effects and Also Chronic Effects from Short and Long Term Exposure:

Skin Contact: May cause skin irritation in sensitive persons. Repeated or prolonged skin contact may lead to allergic contact dermatitis. Evidence from human exposure and animal tests indicates that repeated or prolonged exposure to TNT contained in the product could result in liver, blood, bone marrow, eye, kidney and nervous system disorders.

Inhalation: Inhalation of dust may result in headache, nausea and irritation of the respiratory tract.

Numerical Measures of Toxicity:

No information available for product.

Information available for the product components:

Pentaerythritol Tetranitrate (PETN) – Oral LD50 (rat): 1660 mg/kg
Cyclotrimethylene Trinitramine (RDX) – Oral LD50 (rat): 100 mg/kg
Trinitrotoluene (TNT) – Oral LD50 (mice): 660 mg/kg

LD50 (Lethal Dose) – the amount of a material, given all at once under control conditions, which causes the death of 50% (one half) of a large number of test animals.

Interactive Effects:

No information available.

Toxicological Data: No LD50 data available for this product. Exposure to explosive charge material is unlikely.

12. ECOLOGICAL INFORMATION

Exotoxicity:

Avoid contaminating waterways. Toxic to aquatic life with long lasting effects.

Persistence and Degradability:

The component TNT persists in the environment.

Bioaccumulative Potential:

For the component TNT there is a risk of accumulation in organisms.

Mobility in soil:

There is no available information for this material.

13. DISPOSAL CONSIDERATIONS

Disposal methods:

Destruction of explosives must only be carried out by suitably qualified and licensed personnel. If necessary, the relevant Statutory Authorities must be notified. In all circumstances, detonation is the preferred method of disposal. DO NOT burn. Small quantities of damaged or deteriorated boosters may be destroyed by inclusion in a blast hole containing good explosive material. For larger quantities contact a Nitro Sibir Australia representative for advice.

14. TRANSPORT CONSIDERATIONS

Road and Rail:

Classified as a Class 1 (Explosives) Dangerous Goods according to the Australian Code for the Transport of Explosives by Road and Rail.



UN Number: UN0042
Proper Shipping Name: BOOSTERS without detonator
Transport Hazard Class: 1.1D
Packing Group: None assigned
Hazchem Code: E

Sea Transport:

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for Transport by Sea



UN Number: UN0042
Proper Shipping Name: BOOSTERS without detonator
Transport Hazard Class: 1.1D
Packing Group: None assigned

Environmental hazards: Not a known marine pollutant.

IMDG EMS Fire: F-B

IMDG EMS Spill: S-X

Air Transport:

Transport by air is prohibited under the International Air Transport Association (IATA) Dangerous Goods Regulations for Transport by Air.

Special Precautions for User:

Transport Information: Dangerous Goods of Class 1 (Explosives) are incompatible in a placard load with the following:
Class 2.1 – Flammable Gas
Class 2.2 – Non-flammable Non-toxic Gas
Class 2.3 – Toxic Gas
Class 3 – Flammable Liquid
Class 4.1 – Flammable Solid
Class 4.2 – Spontaneously Combustible Substance
Class 4.3 – Dangerous When Wet Substance
Class 5.1 – Oxidising Agent
Class 5.2 – Organic Peroxide
Class 6 – Toxic and Infectious Substance
Class 7 – Radioactive Substance
Class 8 – Corrosive
Class 9 – Miscellaneous Dangerous Goods
Fire Risk Substances

15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations Specific for the Product in Question:

Australia:

Classified as dangerous goods in accordance with the Australian Code of Practice for the Transport of Explosives by Road and Rail.

Classified as a hazardous chemical according to the criteria of Safe Work Australia.

SAFETY DATA SHEET – INITIATION SYSTEMS

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons. Not Scheduled.

All components of this material are listed on the Australian Inventory of Chemical Substances (AICS) or are exempt.

International Agreements:

This product is not subject to the Montreal Protocol on Substances that Deplete the Ozone Layer.

This product is not subject to the Stockholm Convention on Persistent Organic Pollutants.

This product is not subject to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

16. OTHER INFORMATION

Revision Date: April 2022

Reason(s) for Issue: Minor amendments to formatting – no content changes.

Abbreviations used:

CAS No	Chemical Abstract Service number (chemical unique identifier)
EMS	Emergency Schedules (procedures for ships carrying dangerous goods)
g/cm ³	grams per cubic centimetre
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
LD50	Lethal Dose, 50%
pH	Scale of acidity from 0 (acidic) to 14 (alkaline), pH 7 is neutral
PPE	Personal Protective Equipment
ppm	Parts per million
mg/m ³	Milligrams per cubic metre
STEL	Short-term Exposure Limit
STOT	Specific Target Organ Toxicity
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
TWA	Time Weighted Average

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