

Safety Data Sheet



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **ST PRIMERS**

Other name(s): Detonating Cord Primers

Recommended Use of the Chemical and Restrictions on Use Primer for initiating bulk explosives.

Supplier: Orica Australia Pty Ltd
ABN: 99 004 117 828
Street Address: 1 Nicholson Street
Melbourne 3000
Australia

Telephone Number: +61 3 9665 7111
Facsimile: +61 3 9665 7937
Emergency Telephone: **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

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 according to Safe Work Australia; HAZARDOUS SUBSTANCE.

Classification of the substance or mixture:
Explosives - Division 1.1

SIGNAL WORD: DANGER



Hazard Statement(s):
H201 Explosive; mass explosion hazard.

Precautionary Statement(s):

Prevention:

P210 Keep away from heat / sparks / open flames / hot surfaces. No smoking.
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:

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:

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

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**Disposal:**

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

Poisons Schedule (SUSMP): None allocated.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Pentaerythritol tetranitrate (PETN)	78-11-5	>60%	H200
Non hazardous component(s)	-	<40%	-

4. FIRST AID MEASURES

Construction of the product normally prevents contact with explosive component, however, in the event of exposure:

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact:

If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

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, do NOT induce vomiting. Give a glass of water. Get to a doctor or hospital quickly.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically. Explosive material. Treat as for exposure to nitrates. May cause methemoglobinemia. PETN is a vasodilator. Maintain blood pressure by fluid administration. Shrapnel from detonation may cause burns, wounds and bruises - treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Do not fight fires involving explosives.

Hazchem or Emergency Action Code: E

Specific 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. On burning will emit toxic fumes, including those of oxides of carbon and oxides of nitrogen.

Special protective equipment and precautions for fire-fighters:

Mass explosion hazard. Confinement of material may result in detonation. Heating of material may result in detonation. In case of small fire where the actual explosive is not involved, carefully remove explosive to a safe distance, otherwise evacuate area immediately and allow to burn. Do NOT fight fire. On burning under confined or semi-confined conditions, some oxides of nitrogen and/or carbon monoxide will be present. Brown fumes indicate the presence of toxic oxides of nitrogen.

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6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:

Shut off all possible sources of ignition. Clear area of all unprotected personnel. Avoid friction and impact.

If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Handle with care. Wear protective equipment to prevent skin and eye contact. 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 Orica Australia Pty Ltd (Telephone: 1800 033 111 -- 24 hour service) and/or Orica New Zealand Limited (Telephone: 0800 734 607 -- 24 hour service).

7. HANDLING AND STORAGE

Precautions for safe handling:

Handle with care. 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. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities:

Store material in a well ventilated magazine suitably licensed for Class 1.1D Explosives. Store away from incompatible materials described in Section 10. Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from sources of heat or ignition. Store away from strong acids, strong alkalis, nitrites, chlorates, chlorides and permanganates. Keep containers closed when not in use - check regularly for spills.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia.

Appropriate engineering controls:

Natural ventilation should be adequate under normal use conditions.

Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Orica Personal Protection Guide No. 1, 1998: B - OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.



Wear overalls, safety glasses and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Flexible cords with outer coverings of textiles and plastics. White powder core.

Colour:

Green

Odour:

Odourless

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Solubility:	Insoluble in water.
Specific Gravity:	1.77 (for PETN)
Relative Vapour Density (air=1):	Not applicable
Vapour Pressure (20 °C):	Not applicable
Flash Point (°C):	N App
Flammability Limits (%):	Not available
% Volatile by Volume:	0
Melting Point/Range (°C):	141.3 (for PETN)
Decomposition Point (°C):	>150 (for PETN)
pH:	Not applicable
Viscosity:	Not applicable
Evaporation Rate:	Not applicable

10. STABILITY AND REACTIVITY

Reactivity:	Explosive.
Chemical stability:	Explosive material. Avoid ignition sources, static electricity discharge and friction. Detonation may occur from impact, friction, or excessive heating.
Possibility of hazardous reactions:	Explosive material. Detonation may occur from heavy impact or excessive heating, particularly under confinement. Explosion creates the potential for shrapnel. Hazardous polymerisation will not occur.
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.
Incompatible materials:	Incompatible with combustible materials. PETN is incompatible with oxidising agents, reducing agents, acids and alkalis.
Hazardous decomposition products:	Oxides of nitrogen. Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

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:

Ingestion:	Swallowing can result in nausea, vomiting, diarrhoea, and abdominal pain. Swallowing large amounts may result in headaches, dizziness and a reduction in blood pressure (hypotension).
Eye contact:	May be an eye irritant. May cause physical irritation.
Skin contact:	Repeated or prolonged skin contact with PETN may lead to irritation. Shrapnel from detonation may cause burns and wounds to the skin and eyes.
Inhalation:	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.

Acute toxicity: No LD50 data available for the product. For the constituent PETN:
Oral LD50 (rat): 1660 mg/kg (1)

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Chronic effects: No information available for the product. Available evidence from animal studies indicate that repeated or prolonged exposure to a component of this material could result in effects on the blood system. Blood effects include lowered blood pressure and methaemoglobinaemia.

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Disposal methods:

Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations. For small quantities: Place in a blast hole and explode during blasting. Large quantities should be returned to Orica Australia Pty Ltd or be disposed of in conjunction with the relevant State Dangerous Goods Branch.

14. TRANSPORT INFORMATION

Road and Rail Transport

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



UN No: 0065
Transport Hazard Class: 1.1 D Explosive
Proper Shipping Name or Technical Name: CORD, DETONATING
Hazchem or Emergency Action Code: E

Marine Transport

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

UN No: 0065
Transport Hazard Class: 1.1 D Explosive
Proper Shipping Name or Technical Name: CORD, DETONATING

IMDG EMS Fire: F-B
IMDG EMS Spill: S-X

Air Transport

TRANSPORT PROHIBITED under the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air in Passenger and Cargo Aircraft, and Cargo Aircraft Only.

15. REGULATORY INFORMATION

Classification:

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

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**Classification of the substance or mixture:**

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Hazard Statement(s):

H201 Explosive; mass explosion hazard.

Poisons Schedule (SUSMP): None allocated.

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

16. OTHER INFORMATION

(1) 'Registry of Toxic Effects of Chemical Substances'. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 10/ 2015.

This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

Reason(s) for Issue:

5 Yearly Revised Primary SDS
Alignment to Safe Work Australia requirements
Alignment to GHS requirements

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Orica Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Orica representative or Orica Limited at the contact details on page 1.

Orica Limited's responsibility for the material as shipped is subject to the terms and conditions of sale, a copy of which is available upon request.