

Material Safety Data Sheet



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: CORDTEX DETONATING CORDS

Other name(s): CORDTEX 3.6W, CORDTEX 5W, CORDTEX 5W U/G, CORDTEX 5P, CORDTEX 10P, CORDTEX PYROCORD, CORDTEX 70P, DETONATING CORDS

Recommended Use: Detonating cord for initiating charges.

Supplier: Orica New Zealand Limited
Street Address: Kawakawa Bay Road
Papakura
New Zealand
Telephone Number: +64 9 292 1000
Facsimile: + 64 9 292 1100
Emergency Telephone: 0 800 734 607 (ALL HOURS)

2. HAZARDS IDENTIFICATION

Classified as a Dangerous Good according to NZS 5433:1999 Transport of Dangerous Goods on Land.

Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

Subclasses: Subclass 1.1 Category D Subclass 6.1 Category D - Substances which are acutely toxic.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Product Description: Continuous PETN explosive core enclosed in plastic tapes and fibres with an outer sleeve of textiles or plastic. Odourless.

Components / CAS Number	Proportion	Risk Phrases
Pentaerythritol tetranitrate (PETN) 78-11-5	10-80%	R3
Non hazardous component(s)	to 100%	-

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (Phone eg. Australia 131 126; New Zealand 0 800 764766) or a doctor at once. Construction of the product normally prevents contact with explosive component, however, in the event of exposure:

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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.
Medical attention and special treatment:	Treat symptomatically. Treat as for exposure to nitrates. May cause methemoglobinemia. PETN is a vasodilator. Maintain blood pressure by fluid administration. (1)

5. FIRE FIGHTING MEASURES

Hazards from combustion products: On burning under confined or semi-confined conditions, some oxides of nitrogen and/or carbon will be present. Brown fumes indicate the presence of toxic oxides of nitrogen.

Precautions for fire fighters and special protective equipment: Explosive material. Avoid all ignition sources. Risk of explosion by shock, friction, fire or other sources of ignition. 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.

Hazchem Code: E

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures: Clear area of all unprotected personnel. Shut off all possible sources of ignition. Handle with care. 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 Pty Ltd (Telephone: 0800 734 607 -- 24 hour service).

Methods and materials for containment and clean up: Collect and seal in properly labelled containers.

7. HANDLING AND STORAGE

Precautions for safe handling: 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.

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Conditions for safe storage: Store material in a well ventilated magazine suitably licensed for Class 1.1D Explosives. Store away from incompatible materials described in Section 10. Store away from sources of heat or ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

No value assigned for this specific material by the New Zealand Occupational Safety and Health Service (OSH).

Engineering controls:

Natural ventilation should be adequate under normal use conditions.

Personal Protective Equipment:

Orica Personal Protection Guide No. 1, 1998: A - OVERALLS, SAFETY SHOES.

Wear standard safety equipment - overalls and safety shoes. Always wash hands before smoking, eating, drinking or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Article . Flexible cord with a white powder core.
Colour: Outer coverings of textiles or plastics of various colours.
Odour: Odourless
Solubility: Insoluble in water.
Specific Gravity: 1.77 @ 20 °C (for PETN)
Flash Point (°C): Not applicable.
% Volatile by Volume: 0
Melting Point/Range (°C): 141.3 (for PETN)
Decomposition Point (°C): >150 (for PETN)

10. STABILITY AND REACTIVITY

Chemical stability: Detonation may occur from heavy impact or excessive heating, particularly under confinement.

Conditions to avoid: Avoid exposure to heat, sources of ignition, and open flame.

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

Hazardous decomposition products: Oxides of carbon. Oxides of nitrogen.

Hazardous reactions: Explosive material. Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

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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. Other symptoms include headaches and dizziness.

Eye contact: May be an eye irritant.

Skin contact: Repeated or prolonged skin contact with PETN may lead to irritation.

Inhalation: Not a likely route of exposure due to the physical form of the product. Inhalation of PETN may result in respiratory irritation.

Long Term 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. (1) Blood effects include lowered blood pressure and methaemoglobinaemia. (1)

Toxicological Data:

No LD50 data available for the product. For the constituent PETN (2) :

Oral LD50 (rat): 1660 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Small quantities of damaged or deteriorated explosives may be destroyed by inclusion in a blast hole containing good explosive(s). For large quantities of damaged or deteriorated explosives notify Orica Australia Pty Ltd and/or Orica New Zealand Pty Ltd.

14. TRANSPORT INFORMATION

Road and Rail Transport

Classified as a Dangerous Good according to NZS 5433:1999 Transport of Dangerous Goods on Land.

UN No: 0065
Class-primary 1.1 D Explosive
Proper Shipping Name: CORD, DETONATING
Hazchem Code: E

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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.

UN No: 0065
Class-primary: 1.1 D Explosive
Proper Shipping Name: CORD, DETONATING

Air Transport

TRANSPORT PROHIBITED under the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air in passenger aircraft and cargo aircraft.

15. REGULATORY INFORMATION

Classification: Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

Subclasses: Subclass 1.1 Category D Subclass 6.1 Category D - Substances which are acutely toxic.

16. OTHER INFORMATION

- (1) Material Safety Data Sheet - Orica Australia Pty Ltd; 11/ 2000.
- (2) 'Registry of Toxic Effects of Chemical Substances'. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2005.

This material safety data sheet has been prepared by SH&E Shared Services, Orica.

Reason(s) for Issue:

Revised Primary MSDS
Change to Product Name

This MSDS 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 sold is subject to the terms and conditions of sale, a copy of which is available upon request.

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