

Safety Data Sheet



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: EXEL CONNECTALINE

Recommended Use of the Chemical and Restrictions on Use Initiation of detonators by shock wave.

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: **AUSTRALIA: 1 800 033 111 (ALL HOURS)**
INTERNATIONAL AUSTRALIA: +61 3 9663 2130 (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 1.4

SIGNAL WORD: WARNING



Hazard Statement(s):

H204 Fire or projection 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.
P373 DO NOT fight fire when fire reaches explosives.
P374 Fight fire with normal precautions from a reasonable distance.

Storage:

P401 Store in accordance with AS2187.1 in a well ventilated magazine.

Product Name: EXEL CONNECTALINE
Substance No: 00000002392

Issued: 23/03/2016
Version: 7

Safety Data Sheet

**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
Cyclotetramethylenetetranitramine (HMX)	2691-41-0	<1%	H201, H302, H311
Aluminium powder (stabilised)	7429-90-5	<1%	H261 H228
Hollow plastic tubing	-	>60%	-

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor. Construction of the product normally prevents contact with explosive component, however, in the event of exposure:

Inhalation:

In the case of inhalation of blasting fumes: 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 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, give a glass of water to drink. If vomiting occurs give further water. Seek medical advice.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically. Explosive material.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Coarse water spray. Water spray (large quantities).

Hazchem or Emergency Action Code: 1YE

Specific hazards arising from the substance or mixture:

Explosive material. Not a mass explosion risk. Avoid all ignition sources. On burning will emit toxic fumes, including those of oxides of aluminium, oxides of carbon and oxides of nitrogen.

Special protective equipment and precautions for fire-fighters:

Explosive material. Will burn if involved in a fire. In case of a small fire where the actual explosive is not involved, carefully remove explosive to a safe distance. If explosive is burning, fight fire from a protected location. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:

Shut off all possible sources of ignition. Clear area of all unprotected personnel. Wear protective equipment to prevent skin and eye contact. If contamination of sewers or waterways has occurred advise local emergency services.

In the case of a transport accident notify the Police, Explosives Inspector and Orica Australia Pty Ltd (Telephone: 1800 033 111 -- 24 hour service Australia) and/or (Telephone: 0800 734 607 -- 24 hour service New Zealand).

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

Collect and seal in properly labelled containers or drums for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:

Handle with care. Avoid damage to tubing. Do not fire material when on spool. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities:

Store material in a well ventilated magazine suitably licensed for Class 1.4S Explosives. Protect containers from physical damage. Store away from oxidising agents. Store away from sources of heat or ignition. Store away from incompatible materials described in Section 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Aluminium (metal dust): 8hr TWA = 10 mg/m³

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Natural ventilation should be adequate under normal use conditions.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Orica Personal Protection Guide information (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Safety Data Sheet



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:	Hollow plastic tube.
Colour:	Various
Odour:	Odourless
Solubility:	Insoluble in water.
Specific Gravity:	N Av
Relative Vapour Density (air=1):	N Appl
Vapour Pressure (20 °C):	N Appl
Flash Point (°C):	N Av
% Volatile by Volume:	Nil
Solubility in water (g/L):	Nil
Decomposition Point (°C):	N Av
pH:	N Appl
Viscosity:	N Appl
Evaporation Rate:	N Appl

10. STABILITY AND REACTIVITY

Reactivity:	Explosive.
Chemical stability:	Explosive material. Not a mass explosion risk. Not readily initiated by static electricity, stray electrical currents and radio frequency transmissions.
Possibility of hazardous reactions:	Hazardous polymerisation will not occur. Reacts with oxidising agents .
Conditions to avoid:	Avoid exposure to heat, sources of ignition, and open flame. Avoid build up of static electricity. Avoid contact with oxidising agents. Avoid contact with combustible substances. Avoid damaging tubing. Avoid open ends on tubing - ends of spools or rolls should be kept sealed.
Incompatible materials:	Incompatible with oxidising agents. Incompatible with combustible materials. Incompatible with heat and hot surfaces.
Hazardous decomposition products:	Oxides of carbon. Oxides of aluminium. Oxides of nitrogen.

11. TOXICOLOGICAL INFORMATION

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Substance No: 00000002392

Issued: 23/03/2016
Version: 7

Safety Data Sheet



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:** No information available.
- Eye contact:** No irritation expected due to containment of material within plastic tubing. Tubing may cause physical irritation to eyes.
- Skin contact:** Not expected to be a skin irritant.
- Inhalation:** Not expected to cause respiratory irritation.
- Acute toxicity:** No LD50 data available for the product.
- Chronic effects:** No information available for the product.

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



UN No: 0349
Transport Hazard Class: 1.4 S Explosive
Proper Shipping Name or Technical Name: ARTICLES, EXPLOSIVE, N.O.S.
Hazchem or Emergency Action Code: 1YE

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: 0349
Transport Hazard Class: 1.4 S Explosive
Proper Shipping Name or Technical Name: ARTICLES, EXPLOSIVE, N.O.S.

Product Name: EXEL CONNECTALINE
Substance No: 00000002392

Issued: 23/03/2016
Version: 7

Safety Data Sheet



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

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN No: 0349
Transport Hazard Class: 1.4 S Explosive
Proper Shipping Name or Technical Name: ARTICLES, EXPLOSIVE, N.O.S.

15. REGULATORY INFORMATION

Classification:

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

Classification of the substance or mixture:

Explosives - Division 1.4

Hazard Statement(s):

H204 Fire or projection 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

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

Reason(s) for Issue:

Revised Primary SDS
Alignment to GHS requirements
Change in address details

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.