

SAFETY DATA SHEET

DYNO[®]
Dyno Nobel

EZ SHOT

Infosafe No.: LQ99L
ISSUED Date : 18/02/2019
ISSUED by: Dyno Nobel Asia Pacific Pty
Limited

1. IDENTIFICATION

GHS Product Identifier

EZ SHOT

Company Name

Dyno Nobel Asia Pacific Pty Limited

Address

282 Paringa Road
Gibson Island Murarrie
QLD 4172 Australia

Telephone/Fax Number

Tel: (07) 3026 3900
Fax: (07) 3026 3999

Emergency phone number

1800 098 836

Recommended use of the chemical and restrictions on use

Explosive detonator used in mining and commercial blasting applications.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Explosives: Division 1.4

Signal Word (s)

WARNING

Hazard Statement (s)

H204 Fire or projection hazard.

Pictogram (s)

Exploding bomb



Precautionary statement – 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.

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

Precautionary statement – 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.

Precautionary statement – Storage

P401 Store in accordance with manufacturer instructions and section 7 of this SDS.

Precautionary statement – Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

Other Information

This is a packaged product that will not result in exposure to the explosive material under normal conditions of use. Exposure concerns are primarily with post-detonation reaction products.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on Composition

This set contains many components. The information below relates to the chemical components contained in the explosive item.

Chemical Entity|CAS No.

Potassium perchlorate|7778-74-7

Lead azide|13424-46-9

Nitrocellulose|9004-70-0

Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine|2691-41-0

Zirconium|7440-67-7

Pentaerythritol tetranitrate|78-11-5

Lithium|7439-93-2

Lead picrate|25721-38-4

Aluminium powder (stabilised)|7429-90-5

Polycarbonmonofluoride|51311-17-2

Lead picramate|-

4. FIRST-AID MEASURES

Inhalation

Not considered a potential route of exposure for intact product, when used as intended. However, if the sealed unit is damaged and exposure occurs, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

Ingestion

Not considered a potential route of exposure for intact product, when used as intended.

Skin

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

Eye contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

First Aid Facilities

Eyewash and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out.

Unsuitable Extinguishing Media

Do not use water jet as an extinguisher, as this will spread the fire.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon monoxide and oxides of carbon.

Specific Hazards Arising From The Chemical

Explosion risk in case of fire. Do not fight fire when fire reaches explosives. Evacuate area no less than 2,500 feet in all directions. Avoid extreme conditions of heat or shock.

Hazchem Code

1[Y]E

Decomposition Temperature

Not available

Precautions in connection with Fire

DO NOT fight fire when fire reaches explosives. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Avoid breathing fumes or gases from detonation of explosives. Notify authorities in accordance with emergency response procedures. Only personnel trained in emergency response should respond. If no fire danger is present, and product is undamaged and/or uncontaminated, repackage product in original packaging or other clean approved container. Ensure that a complete account of product has been made and is verified. If loose explosive powder is spilled, such as from a broken detonator, only properly qualified and authorised personnel should be involved with handling and clean-up activities. Spilled explosive powder is extremely sensitive to initiation and may detonate. Dispose of waste according to applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Only properly qualified and authorised personnel should handle and use explosives. Handle with great care. Unintended detonation of explosives or explosive devices can cause serious injury or death. Use in designated areas with adequate ventilation. Avoid sources of shock, friction, heat and ignition. Avoid contact with oxidising materials. Use only non-sparking tools. Detonation in confined or unventilated areas may result in exposure to hazardous fumes or oxygen deficiency. Have emergency equipment (for spills, leaks, etc.) readily available. Label containers. Keep containers closed when not in use. Wear appropriate protective equipment to prevent inhalation, skin and eye contact. Maintain high standards of personal hygiene ie. washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, strong acids, foodstuffs, and clothing. Only properly qualified and authorised personnel should handle and use explosives. Keep containers upright. Keep containers closed when not in use, securely sealed and protected against physical damage. Ensure product is stored securely and cannot fall. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Keep away from heat, sparks, open flames, hot surfaces. Take precautions against static electricity discharges. Use proper grounding procedures. Do not subject to friction. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS 2187 Explosives - Storage, transport and use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Aluminium (metal dust)(elemental)

TWA: 10 mg/m³

Lead, inorganic dusts & fumes (as Pb)

TWA: 0.05 mg/m³

Fluorides

TWA: 2.5 mg/m³

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

Source: Safe Work Australia

Biological Limit Values

Name: Lead

Determinant: Lead in blood

Value: 200 µg/L

Sampling time: Not critical

Source: American Conference of Industrial Hygienists (ACGIH).

Appropriate Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing solid/dust away from workers' breathing zone. A flameproof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn. Provide enhanced ventilation after use if in underground mines or other enclosed area.

Respiratory Protection

Not required for conditions of use. Where exposure to fumes from blasting exists and ventilation is not effective in controlling airborne exposure then an approved respirator with a replaceable filter should be used. Wear a respirator fitted with the following cartridge: Organic vapor + dust and mist filter. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Tight-fitting safety glasses. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations.

Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material (polyethylene). Chemical resistant. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection

Wear suitable coveralls to prevent exposure to the skin. Suitable protective workwear, e.g. Wear fire/flame resistant/retardant clothing. Wear anti-static protective clothing if there is a risk of ignition from static electricity is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Description	Properties	Description
Form	Article	Appearance	Solid
Colour	Not available	Odour	Not available
Decomposition Temperature	Not available	Melting Point	Not applicable
Boiling Point	Not applicable	Solubility in Water	Not available
Specific Gravity	Not applicable	pH	Not available
Vapour Pressure	Not applicable	Vapour Density (Air=1)	Not applicable
Evaporation Rate	Not available	Odour Threshold	Not available
Viscosity	Not available	Partition Coefficient: n-octanol/water	Not available
Flash Point	Not applicable	Flammability	Explosive
Auto-Ignition Temperature	Not available	Explosion Limit - Upper	Not available
Explosion Limit - Lower	Not available	Explosion Properties	Class 1: Explosive substances and articles. Compatibility group B.
Oxidising Properties	Not considered to be oxidising.		

10. STABILITY AND REACTIVITY

Chemical Stability

Risk of explosion by shock, friction, fire or other sources of ignition. Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

Reactivity and Stability

Reacts with incompatible materials.

Conditions to Avoid

Protect from sunlight. Avoid heat, flames and other sources of ignition. Risk of explosion if heated under confinement. Do not subject to grinding/ shock/ friction.

Incompatible materials

Strong oxidizing agents. Strong reducing agents.

Hazardous Decomposition Products

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

Possibility of hazardous reactions

Risk of explosion.

Hazardous Polymerization

Not available

11. TOXICOLOGICAL INFORMATION

Toxicology Information

No toxicity data available for this material.

Ingestion

No exposure to chemical hazards anticipated with normal handling procedures. Post-detonation reaction product residue is toxic by ingestion. Symptoms may include gastroenteritis with abdominal pain, nausea, vomiting and diarrhea.

Inhalation

Not a likely route of exposure. Inhalation of product fumes or dusts may cause irritation of the nose, throat and respiratory system.

Skin

No exposure to chemical hazards anticipated with normal handling procedures. Exposure to post-detonation reaction products may be irritating to skin. The symptoms may include redness, itching and swelling.

Eye

No exposure to chemical hazards anticipated with normal handling procedures. Particulates in the eye may cause irritation, redness, swelling itching, pain and tearing.

Respiratory sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

Lead compounds, inorganic are listed as a Group 2A: Probably carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Lead is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT-single exposure

Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure

Not expected to cause toxicity to a specific target organ.

Aspiration Hazard

Not expected to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No ecological data available for this material.

Persistence and degradability

The product contains inorganic substances which are not biodegradable.

Mobility

The product is water-soluble and may spread in water systems.

Bioaccumulative Potential

Not available

Other Adverse Effects

Not available

Environmental Protection

Do not discharge this material into waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

Disposal considerations

Destruction of explosives must be carried out by suitably qualified personnel. If necessary, the relevant statutory authorities must be notified. In all circumstances, detonation is the preferred method of disposal. The explosives to be destroyed must be placed in direct contact with fresh priming charge in a hole and then adequately stemmed. No detonators are to be inserted into defective explosives. Personnel must be evacuated to a safe distance in accordance with relevant local regulations prior to initiation of the charge. NOTE: Detonations in loose or stony ground may be expected to cause fly rock.

14. TRANSPORT INFORMATION

Transport Information

This material is classified as Dangerous Goods Class 1 Explosives.

Class 1 Dangerous Goods are incompatible in a placard load with any of the following:

- Division 2.1: Flammable gases
- Division 2.2: Non-flammable Non-toxic Gases
- Division 2.3: Toxic Gases
- Class 3: Flammable Liquids
- Division 4.1: Flammable Solids
- Division 4.2: Spontaneously Combustible Substances
- Division 4.3: Dangerous when wet Substances
- Division 5.1: Oxidising substances
- Division 5.2: Organic Peroxides
- Class 6: Toxic or Infectious Substances
- Class 7: Radioactive materials unless specifically exempted
- Class 8: Corrosive Substances
- Class 9: Miscellaneous substances
- Fire risk substances

Marine Transport (IMO/IMDG):

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

Class/Division: 1.4B

UN No: 0361

Proper Shipping Name: DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting

Packing Group: -

EMS: F-B, S-X

Special Provisions: -

Air Transport (ICAO/IATA):

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

Class/Division: 1.4B

UN No: 0631

Proper Shipping Name: DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting

Packing Group: -

Packaging Instructions (passenger & cargo): Forbidden

Packaging Instructions (cargo only): Forbidden

Hazard Label: Explosive 1.4

Special Provisions: A802

U.N. Number

0361

UN proper shipping name

DETONATOR ASSEMBLIES, NON-ELECTRIC

Transport hazard class(es)

1.4B

Packing Group

(*) see 'Other information.'

Hazchem Code

1[Y]E

IERG Number

03

IMDG Marine pollutant

No

Special Precautions for User

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Handle with care. Do not drop or knock. Ensure product is stored securely and cannot fall.

Other Information

(*) Unless specific provision to the contrary is made, the packagings used for explosives shall comply with at least the requirements for solids or liquids (as appropriate) of Packing Group II (medium danger).

Further information related to packaging, IBCS and Unit loads for explosives can be obtained from Australian Explosives Code.

15. REGULATORY INFORMATION

Regulatory information

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of chemicals (GHS) including Work, Health and Safety regulations, Australia.

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

Poisons Schedule

Not Scheduled

16. OTHER INFORMATION

Date of preparation or last revision of SDS

SDS Created: February 2019

References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of Classification and Labelling of Chemicals.

Contact Person/Point

Dyno Nobel Asia Pacific Limited

Telephone: (07) 3026 3900

Fax: (07) 3026 3999

Emergency: 1800 098 836

DISCLAIMER: The information and suggestions above concern explosive products which should only be dealt with by persons having appropriate technical skills, training and licences. The results depend to a large degree on the conditions under which the products are stored, transported and used.

While Dyno Nobel Asia Pacific makes every effort to ensure the details contained in the data sheet are as current and accurate as possible the conditions under which its products are used are not within Dyno Nobel Asia Pacific Limited's control. Each user is responsible for being aware of the details in the data sheet and the product applications in the specific context of the intended use.

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END OF SDS

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