

# SAFETY DATA SHEET

**DYNO**<sup>®</sup>  
Dyno Nobel

## POWERMITE(R) THERMO

Infosafe No.: LQ10Q  
ISSUED Date : 15/06/2016  
ISSUED by: Dyno Nobel Asia Pacific Pty  
Limited

### 1. IDENTIFICATION

**GHS Product Identifier**

POWERMITE(R) THERMO

**Product Code****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 primer

### 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 1.1

Eye Damage/Irritation: Category 2A

**Signal Word (s)**

DANGER

**Hazard Statement (s)**

H201 Explosive; mass explosion hazard.

H319 Causes serious eye irritation.

**Pictogram (s)**

Exploding bomb, Exclamation mark



**Precautionary statement – Prevention**

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
P230 Keep wetted with suitable material.  
P240 Ground/bond container and receiving equipment.  
P250 Do not subject to grinding/shock/friction.  
P264 Wash contaminated skin thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary statement – Response**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
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 according to manufacturer's instructions and section 7 of this SDS.

**Precautionary statement – Disposal**

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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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**Ingredients**

Name	CAS	Proportion
Ammonium Nitrate	6484-52-2	>60 %
Sodium Nitrate	7631-99-4	<10 %
Urea	57-13-6	<10 %
Additives		<10 %
Water	7732-18-5	<10 %

### 4. FIRST-AID MEASURES

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**Inhalation**

Unlikely route of exposure unless detonator is fired. If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

**Ingestion**

Unlikely route of exposure unless detonator is fired. Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

**Skin**

Unlikely route of exposure unless detonator is fired. Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

**Eye contact**

Unlikely route of exposure unless detonator is fired. 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. Seek medical attention.

**First Aid Facilities**

Eyewash, safety shower 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

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### **Suitable Extinguishing Media**

DO NOT FIGHT FIRES. Immediately isolate area and evacuate personnel to a safe distance. Use only remote or fixed extinguishing systems (sprinklers).

### **Hazards from Combustion Products**

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

### **Specific Hazards Arising From The Chemical**

Extreme risk of explosion by shock, friction, fire or other sources of ignition. In case of fire: Evacuate area. DO NOT fight fire when fire reaches explosives.

### **Hazchem Code**

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. Use only remote or fixed extinguishing systems (sprinklers).

## 6. ACCIDENTAL RELEASE MEASURES

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### **Emergency Procedures**

Protect from all ignition sources. In case of fire evacuate all personnel to a safe distant area and allow to burn or fight fire remotely. 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. Spilled product 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

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### **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. 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. Store in dry, well-ventilated magazine licensed for Class 1.1D Explosives. Keep containers closed when not in use, securely sealed and protected against physical damage. 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, ignition sources, hot surfaces. Take precautions against static electricity discharges. Use proper grounding procedures. Do not subject materials to impact, friction and strong shock. Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous. 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

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### **Occupational exposure limit values**

No exposure standards have been established for the mixture. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels. For dust created after detonations: the TWA exposure standards for dust not otherwise specified is 10 mg/m<sup>3</sup>. As with all chemicals, exposure should be kept to the lowest possible levels. 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**

No biological limits allocated.

### **Appropriate Engineering Controls**

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours/particulates away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

### **Respiratory Protection**

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapour/particulate filter should be used. 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. 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 - Eye Protectors for Industrial Applications.

### **Hand Protection**

Wear gloves of impervious material such as PVC or rubber gloves. 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**

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled. It is advisable that a local supplier of personal protective clothing is consulted regarding the choice of material.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Description	Properties	Description
Form	Liquid	Appearance	Oily emulsion (enclosed in a plastic)
Colour	Not available	Odour	Faint
Decomposition Temperature	Not available	Melting Point	Not applicable
Boiling Point	Not applicable	Solubility in Water	Insoluble
Specific Gravity	1.10-1.20	pH	Not applicable
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	Flammable Limits - Lower	Not available
Flammable Limits - Upper	Not available	Explosion Properties	Explosive class 1.1D
Oxidising Properties	Not available		

## 10. STABILITY AND REACTIVITY

### Chemical Stability

Extreme risk of explosion by shock, friction, fire or other sources of ignition.

### Reactivity and Stability

Reacts with incompatible materials.

### Conditions to Avoid

Heat, open flames and other sources of ignition. Shock, friction.

### Incompatible materials

Oxidising agents.

### Hazardous Decomposition Products

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

### Possibility of hazardous reactions

Highly reactive explosive. When detonated or heated to decomposition, this product will evolve highly toxic gases.

## 11. TOXICOLOGICAL INFORMATION

### Toxicology Information

No toxicity data available for this material. Product form (encased) reduces potential for exposure.

### Ingestion

Not a likely source of exposure. However, ingestion of this product may irritate the gastric tract causing nausea and vomiting. May cause cyanosis (blue-grey skin discolouration) and methaemoglobinaemia (reduced capacity of haemoglobin to transport oxygen).

### Inhalation

Unlikely due to form of product. However, inhalation may cause irritation of the nose, throat and respiratory system.

Due to product encapsulation no inhalation hazard is anticipated until product is detonated or heated to decomposition, evolving nitrogen oxides. Irritant - toxic fumes. Symptoms may include irritation, chest pain, breathing difficulties and pulmonary oedema. Symptoms may be delayed several hours. Chronic over exposure to decomposition products may result in blood or respiratory disease.

**Skin**

Product encapsulation minimises skin contact potential, however contact with contents may cause irritation and skin redness.

**Eye**

Unlikely due to form of product. However, causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness. Serious eye damage may result from explosive fragments.

**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.

**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.

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**12. ECOLOGICAL INFORMATION**

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**Ecotoxicity**

No ecological data available for this material

**Persistence and degradability**

Not available

**Mobility**

Not available

**Bioaccumulative Potential**

Not available

**Other Adverse Effects**

Not available

**Environmental Protection**

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

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**13. DISPOSAL CONSIDERATIONS**

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**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.

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**14. TRANSPORT INFORMATION**

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**Transport Information**

Road and Rail:

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: 1.1D

UN No: 0241

Proper Shipping Name: EXPLOSIVE, BLASTING, TYPE E

EMS : F-B,S-X

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

Class/Division: 1.1D

UN No: 0241

Proper Shipping Name: Explosive, blasting, type E

Packaging Instructions (passenger & cargo): Forbidden

Packaging Instructions (cargo only): Forbidden

**U.N. Number**

0241

**UN proper shipping name**

EXPLOSIVE, BLASTING, TYPE E

**Transport hazard class(es)**

1.1D

**Packing Group**

see 'Other information' (\*)

**Hazchem Code**

E

**IERG Number**

02

**IMDG Marine pollutant**

No

**Transport in Bulk**

Not available

**Special Precautions for User**

Not available

**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

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### 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).

### Poisons Schedule

Not Scheduled

## 16. OTHER INFORMATION

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### Date of preparation or last revision of SDS

SDS amendment: May 2018

3. Composition/information on ingredients

9. Physical and chemical properties

SDS Reviewed: June 2016

Supersedes: September 2012

### 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.

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**END OF SDS**

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