

SAFETY DATA SHEET

DYNO[®]
Dyno Nobel

DYNOSPLIT[®] RIGHT

Infosafe No.: LPYU8
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Issued by: Dyno Nobel Asia Pacific Pty
Limited

1. IDENTIFICATION

GHS Product Identifier

DYNOSPLIT[®] RIGHT

Product Code

Company Name

Dyno Nobel Asia Pacific Pty Limited

Address

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Murarrie, QLD 4172
Australia

Telephone/Fax Number

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Emergency phone number

1800 098 836

Recommended use of the chemical and restrictions on use

Explosives 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)

GHS classification:

Explosives: Division 1.1

Signal Word (s)

DANGER

Hazard Statement (s)

H201 Explosive; mass explosion hazard.

Pictogram (s)

Exploding bomb

**Precautionary statement – Prevention**

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

P230 Keep wetted with water.

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 a cool, dry, well-ventilated area.

Precautionary statement – Disposal

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

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	<5 %

4. FIRST-AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

Unlikely route of exposure unless detonator is fired.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.

Unlikely route of exposure unless detonator is fired.

Skin

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

Unlikely route of exposure unless detonator is fired.

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.

Unlikely route of exposure unless detonator is fired.

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 or a doctor at once. (131 126).

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

DO NOT attempt to extinguish burning explosive. Evacuate area immediately. Notify trained emergency response personnel. Use only remote or fixed extinguishing systems (sprinklers).

Hazards from Combustion Products

Will explode under fire conditions. This product may emit toxic and/or irritating fumes including carbon monoxide, carbon dioxide, nitrogen oxides and ammonia.

Specific Hazards Arising From The Chemical

EXPLOSIVE. Exposure to heat may result in detonation, however, effects may be limited to the package.

Explosion risk in case of fire. Do not fight fire when fire reaches explosives. Evacuate area.

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 attempt to fight fires involving explosive materials. 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

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. 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. 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, hot surfaces. Take precautions against static electricity discharges. Do not subject to friction. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations.

Reference should be made to Australian Standard AS 2187 Explosives - Storage, transport and use - Storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

Biological Limit Values

No biological limits allocated.

Appropriate Engineering Controls

Use with good general ventilation. If mists or vapours are produced, local exhaust ventilation should be used.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist 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 wear rubber or PVC 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Description	Properties	Description
Appearance	Oily emulsion enclosed in plastic	Odour	Not available
Decomposition Temperature	Not available	Melting Point	Not available
Freezing Point	Not available	Boiling Point	Not available
Solubility in Water	Insoluble	pH	Not available
Vapour Pressure	Not available	Vapour Density (Air=1)	Not available
Evaporation Rate	Not available	Odour Threshold	Not available
Partition Coefficient: n-octanol/water	Not available	Density	1.15 - 1.21
Flash Point	Not available	Flammability	Explosive
Auto-Ignition Temperature	Not available		

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under recommended conditions of storage and handling.

Reactivity and Stability

Reacts with incompatible materials

Conditions to Avoid

Shock, friction, heavy impact, direct sunlight, heat and other sources of ignition.

Incompatible materials

Avoid contact with acids, metal powders combustibles and oxidisers.

Hazardous Decomposition Products

Will explode under fire conditions. This product may emit toxic and/or irritating fumes including carbon monoxide, carbon dioxide, nitrogen oxides and ammonia following detonation.

Possibility of hazardous reactions

Not available

Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information

No toxicity data available for this material. The available acute toxicity data for the ingredient/s is/are given below.

Acute Toxicity - Oral

Ammonium nitrate: LD50 (Rat): 2217 mg/kg

Sodium nitrate: LD50 (Rat): 1276 mg/kg

Urea: LD50 (Rat): 8471 mg/kg

Ingestion

Ingestion of contents may irritate the gastric tract causing nausea and diarrhoea. May cause cyanosis and methaemglobinaemia.

Inhalation

Inhalation of product vapours may cause irritation of the nose, throat and respiratory system. Heated to decomposition nitrogen oxide evolved can cause shortness of breath, chest pain, asphyxia, methaemglobinaemia and pulmonary oedema.

Skin

Contact with contents may cause redness, itching and irritation.

Eye

Contact with contents may cause eye irritation, tearing, stinging, blurred vision, and redness.

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.

Other Information

Chronic over exposure to decomposition products may result in blood or respiratory disease.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No data is available for this material. However, oil spills can smother and suffocate aquatic life by preventing passage of oxygen into water. Oil contamination can also foul and smother birds and marine animals. Ammonium nitrate may cause massive algal blooms in static water.

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.

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.

Burning Safety:

make a sawdust bed or trail 2 m longer than necessary, approximately 450mm wide and 20mm deep, upon which the explosive will be laid. If sawdust is not available, newspaper may be used. Normal precautions should be taken against the spread of fire.

Individual trails should not be closer together than 2m and should contain not more than 12kg of explosive.

Trails should be side-by-side, not in a line, and not more than four should be set up at one time. Remove any explosive that is not to be burnt to a distance of at least 300m.

Sufficient diesel oil or kerosene (never petrol or other highly flammable liquid) should be used to thoroughly wet the sawdust (or paper). At least 2L per 10m of trail is recommended.

Light the trail from a long rolled paper 'wick' which should be placed downwind and in contact with the 1m of trail which is not covered with explosive. The wind should blow so that the flame from the wick (and later from the burning explosives) will blow away from the unburned explosives as detonation is more likely to occur if the explosives are preheated by the flame.

If plastic igniter is available, its use for lighting is recommended instead of paper. One end should be coiled into the sawdust or under the paper and the other end lit from a minimum distance of 7m from the trail. Retire to at least 300m or to a safe place.

Do not return to the site for at least 30 min after the burning has finished.

If the fire goes out do not approach for at least 15 minutes after all traces of fire has gone. Do not add more diesel oil or kerosene unless certain that the flame is completely extinguished.

14. TRANSPORT INFORMATION

Transport Information

This material is classified as a Class 1 Explosives Dangerous Goods according to The Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition) and Australian Code for the Transport of Explosives (3rd edition).

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 Agents
- Division 5.2, Organic Peroxides
- Class 6, Toxic and Infectious Substances
- Class 7, Radioactive Substances
- Class 8, Corrosive Substances
- Class 9 - Miscellaneous Dangerous Goods
- 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

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)

Poisons Schedule

Not Scheduled

16. OTHER INFORMATION

Date of preparation or last revision of SDS

SDS Reviewed: March 2015

Supersedes: March 2010

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, Safe work Australia.

American Conference of Industrial Hygienists (ACGIH)

Globally Harmonised System of classification and labelling of chemicals.

Contact Person/Point

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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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