SAFETY DATA SHEET

Revision date: 18-Sep-2024 **Revision Number** 18

Section 1: Identification

Product identifier

Product Name PENTEX BOOSTERS

Product Code(s) 000000009017

Other means of identification

Synonyms Pentex AP, Pentex AU, Pentex G, Pentex G L, Pentex G400, Pentex H, Pentex PP900, Pentex PPK, Pentex PPP, Pentex ProTECT, Pentex Stopeprime, Pentex W, Pento-Seis, Pentex Rocket

Recommended use of the chemical and restrictions on use

Recommended use Initiating explosive charges. Restricted to professional users.

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier
Orica New Zealand Limited
Street Address:
Brunnings Road
Carters Beach
Westport, 7892
New Zealand

Telephone Number: +64 3 788 8163

Emergency telephone number

Emergency Telephone 0 800 734 607 (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.

Section 2: Hazard identification

Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

Classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

GHS Classification

Explosives	Division 1.1
Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 2
Chronic aquatic toxicity	Category 2

Label elements

Signal word
Danger

Hazard statements
H201 - Explosive; mass explosion hazard
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H331 - Toxic if inhaled
H370 - Causes damage to organs
H373 - May cause damage to organs through prolonged or repeated exposure
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements - Prevention
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep only in original packaging.
Ground and bond container and receiving equipment.
Do not subject to grinding/shock/friction.
Do not breathe dusts or mists.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/clothing and eye/face protection.
Avoid release to the environment.

Precautionary Statements - Response
IF exposed or concerned: Call a POISON CENTER or doctor.
Get medical advice/attention if you feel unwell.
Specific treatment (see First aid on this SDS).
IF ON SKIN: Wash with plenty of soap and water.
Call a POISON CENTER or doctor/physician if you feel unwell.
Take off immediately all contaminated clothing and wash it before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Rinse mouth.
In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.
Collect spillage.

Precautionary Statements - Storage
Store in accordance with local regulations.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Precautionary Statements - Disposal
Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.
Refer to manufacturer/supplier for information on recovery and recycling.

Other hazards which do not result in classification
No information available.

Section 3: Composition/information on ingredients

Chemical name	CAS No.	Weight-%
Trinitrotoluene (TNT)	118-96-7	30-70%
Cyclonite (RDX, Cyclotrimethylenetrinitramine)	121-82-4	0-70%
Pentaerythritol tetranitrate (PETN)	78-11-5	0-70%
Barium sulfate	7727-43-7	<10%
Ingredients determined not to be hazardous	-	to 100%

Section 4: First-aid measures

Description of first aid measures

General advice For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor. Take a copy of the Safety Data Sheet when going for medical treatment. Take off contaminated clothing and shoes immediately.

Inhalation IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, (trained personnel should) give oxygen. Immediately give oxygen if victim turns blue (lips, ears, fingernails). If breathing has stopped, give artificial respiration. Get medical attention immediately.

Eye contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately. Wash contaminated clothing before reuse.

Ingestion Rinse mouth immediately and drink plenty of water. Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.

Self-protection of the first aider Remove all sources of ignition. Avoid contact with skin. Do not breathe dust/fume/gas/mist/vapors/spray. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11 for additional Toxicological Information. Drowsiness. Dizziness. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. May cause allergic skin reaction. May be absorbed through the skin.

Effects of Exposure No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. Shrapnel from detonation may cause burns, wounds and bruises. PETN is a vasodilator. Maintain blood pressure by fluid administration.

May cause methemoglobinemia.
Clinical findings: The smooth muscle relaxant effect of nitrate/nitrite salts may lead to headache, dizziness and marked hypotension. Cyanosis is clinically detectable when approximately 15% of the haemoglobin has been converted to methaemoglobin (ferric iron). Symptoms such as headache, dizziness, weakness and dyspnoea occur when methemoglobin concentrations are 30% to 40%; at levels of about 60% stupor, convulsions, coma and respiratory paralysis occur and the blood is a chocolate brown colour. At higher

levels death may result. Spectrophotometric analysis can determine the presence and concentration of methemoglobin in the blood.

Treatment:
1. Give 100% oxygen.
2. In cases of (a) ingestion: use gastric lavage, (b) contamination of skin (unburnt or burnt): continue washing to remove salts.
3. Observe blood pressure and treat hypotension if necessary.
4. When methaemoglobin concentrations exceed 40% or when symptoms are present, give methylene blue 1 or 2 mg/kg body weight in a 1% solution by slow intravenous injection. If cyanosis has not been resolved within one hour a second dose of 2 mg/kg body weight may be given. The total dose should not exceed 7 mg/kg body weight as unwanted effects such as dyspnoea, chest pain, vomiting, diarrhoea, mental confusion and cyanosis may occur. Without treatment methaemoglobin levels of 20-30% revert to normal within 3 days.
5. Bed rest is required for methaemoglobin levels in excess of 40%.
6. Continue to monitor and give oxygen for at least two hours after treatment with methylene blue.
7. Consider transfer to centre where haemoperfusion can be performed to remove the nitrates/nitrites from the blood if the condition of the patient is unstable.
8. Following inhalation of oxides of nitrogen the patient should be observed in hospital for 24 hours for delayed onset of pulmonary oedema.

Further observation for 2-3 weeks may be required to detect the onset of the inflammatory changes of bronchiolitis fibrosa obliterans.

Liver and kidney damage are possible complications. Effects may be delayed.

Section 5: Fire-fighting measures

Hazchem code E

Suitable Extinguishing Media

Suitable Extinguishing Media Do not fight fires involving explosives.

Unsuitable extinguishing media

Specific hazards arising from the chemical

Specific hazards arising from the chemical Explosive. May be ignited by heat, sparks or flames. May explode from friction, heat or contamination. Risk of explosion by shock or heating under confinement. 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. Environmentally hazardous. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous combustion products Carbon oxides. Nitrogen oxides. Oxides of sulfur. Barium oxide.

Special protective actions for fire-fighters

Special protective equipment and precautions for fire-fighters In the case of a small fire, if actual explosive is not burning, carefully remove as much explosive as possible to a safe distance. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Fight fire remotely due to the risk of explosion.

However, if explosive is burning, evacuate area immediately and allow to burn. DO NOT fight fire.

A major fire may involve a risk of explosion. An adjacent detonation may also involve the risk of explosion. Mass explosion hazard. Risk of explosion by shock, friction, fire or other

sources of ignition.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Explosive material. Evacuate personnel to safe areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not subject to grinding/shock/friction. Use personal protective equipment as required. Avoid contact with skin, eyes and inhalation of vapors. Ensure adequate ventilation. Avoid generation of dust. Do not breathe dust.

Other information Refer to protective measures listed in Sections 7 and 8.

In the case of a transport accident notify the Police, Regulatory Authorities and Orica Australia Pty Ltd (Telephone: 1800 033 111 -- 24 hour service) and/or Orica New Zealand Ltd (Telephone: 0800 734 607 -- 24 hour service) or Orica International (Telephone: +61 3 9663 2130 -- 24 hour service Australia).

For emergency responders Explosive material. Remove all sources of ignition. Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Keep out of waterways. Should not be released into the environment. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways.

Methods for cleaning up Handle with care. Use non-sparking tools. Ground and bond containers when transferring material. Pick up and transfer to properly labeled containers. Avoid contamination with other substances. Keep in suitable, closed containers for disposal.

Precautions to prevent secondary hazards

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: Handling and storage

Precautions for safe handling

Advice on safe handling Keep out of reach of children. Handle with care. Avoid contact with skin and eyes. Avoid breathing dust or spray mist. Avoid breathing vapors or mists. Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Avoid contamination with other substances. Avoid impact with solid surfaces or other boosters. Do not drill into explosive.

General hygiene considerations Take off contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not get in eyes, on skin, or on clothing. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Store material in a well ventilated magazine suitably licensed for the explosives hazard classification. Do not store with other explosives products that have an incompatible explosives hazard classification (for example detonators must not be stored with blasting/high explosives). Store in accordance with the particular national regulations. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Store away from other materials. Protect from physical damage. Keep/store only in original container. Protect from moisture.

Incompatible materials

Incompatible with combustible materials. Incompatible with oxidizing agents. Reducing agents. Incompatible with strong acids and bases.

Section 8: Exposure controls/personal protection

Control parameters

Exposure Limits

No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority. However, Workplace Exposure Standard(s) for particulates and decomposition product(s):.

Chemical name	New Zealand	Australia	ACGIH TLV	United Kingdom
Trinitrotoluene (TNT) 118-96-7	TWA: 0.5 mg/m³ Sk*	TWA: 0.5 mg/m³ Sk*	TWA: 0.1 mg/m³ inhalable fraction and vapor Sk*	TWA: 0.5 mg/m³ STEL: 1.5 mg/m³ Sk*
Cyclonite (RDX, Cyclotrimethylenetrinitramine) 121-82-4	TWA: 1.5 mg/m³ Sk*	TWA: 1.5 mg/m³ Sk*	TWA: 0.5 mg/m³ Sk*	-
Barium sulfate 7727-43-7	TWA: 10 mg/m³	TWA: 10 mg/m³	TWA: 5 mg/m³ inhalable particulate matter, particulate matter containing no asbestos and <1% crystalline silica	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³

Chemical name	New Zealand	ACGIH
Trinitrotoluene (TNT) 118-96-7	-	5 % of hemoglobin

Workplace Exposure Standards
2,4,6-Trinitrotoluene (TNT): WES-TWA 0.5 mg/m³, skin
Cyclonite (RDX): WES-TWA 1.5 mg/m³, skin
Barium sulphate: WES-TWA 10 mg/m³
Nitrogen dioxide: WES-TWA 1 ppm, 1.9 mg/m³

As published by the New Zealand Workplace Health & Safety Authority.

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

`Skin' Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

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

Engineering controls Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas.

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 Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as personal protective equipment

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.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK.

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Protective gloves.

Skin and body protection Overalls. Protective shoes or boots.

Respiratory protection If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Environmental exposure controls No information available.

Thermal hazards None under normal processing.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid
Appearance	Article. Cardboard or plastic tubes, with or without caps. Various colours.
Color	Tan to Brown (contents)
Odor	Mild
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	

Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	1.5-1.8 @20°C	None known
Water solubility	Insoluble in water.	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information
Particle characteristics

Section 10: Stability and reactivity

Reactivity

Reactivity Explosive.

Chemical stability

Stability Explosive. Risk of explosion by shock, friction, fire or other sources of ignition. Heating, particularly under confinement, may cause an explosion. May cause a mass explosion. Detonation may occur from impact, friction, or excessive heating.

Explosion data

Sensitivity to mechanical impact Yes.

Sensitivity to static discharge Yes.

Possibility of hazardous reactions

Hazardous polymerization Hazardous polymerization does not occur.

Possibility of hazardous reactions A major fire may involve a risk of explosion. An adjacent detonation may also involve the risk of explosion. Mass explosion hazard. Explosion may result due to shock, friction, fire or other sources of ignition. Detonation may occur from heavy impact or excessive heating. Explosion creates the potential for shrapnel.

Conditions to avoid

Conditions to avoid Heat. Keep away from open flames, hot surfaces and sources of ignition. static discharge (electrostatic discharge). Do not subject to grinding/shock/friction. Contact with other chemicals. Avoid contact with combustible substances. Protect from moisture. Avoid impact with solid surfaces or other boosters. Avoid contamination of the material.

Incompatible materials

Incompatible materials Incompatible with combustible materials. Incompatible with oxidizing agents. Reducing agents. Incompatible with strong acids and bases.

Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Nitrogen oxides. Oxides of sulfur. Barium oxide.

Section 11: Toxicological information

Acute toxicity

Information on likely routes of exposure

Product Information No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:

Inhalation Toxic by inhalation. May cause irritation of respiratory tract. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. May cause a reduction in blood pressure.

Eye contact May cause irritation.

Skin contact Toxic in contact with skin. May cause irritation. May be absorbed through the skin in harmful amounts. Nitrates can be absorbed through cut, burnt or broken skin. May cause sensitization in susceptible persons. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Shrapnel from detonation may cause burns, wounds and bruises. Further information is provided under 'Chronic Effects'.

Ingestion Toxic if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system depression. May cause a lowering of blood pressure (hypotension). May cause adverse liver effects. Ingestion of larger amounts may cause defects to the central nervous system (e.g. dizziness, headache). May cause drowsiness or dizziness. May cause seizures, convulsions.

Symptoms Dizziness. Drowsiness. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. May cause allergic skin reaction. May be absorbed through the skin.

Acute toxicity .

Numerical measures of toxicity
No information available

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trinitrotoluene (TNT)	= 795 mg/kg (Rat)	-	> 1.01 mg/L (Rat) 4 h
Cyclonite (RDX, Cyclotrimethylenetrinitramine)	= 71 mg/kg (Rat)	-	-
Pentaerythritol tetranitrate (PETN)	= 1660 mg/kg (Rat)	-	-
Barium sulfate	= 307000 mg/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available. The table below indicates whether each agency has listed any ingredient as a carcinogen. Based on available data, the classification criteria are not met.

Chemical name	New Zealand	IARC
Trinitrotoluene (TNT) - 118-96-7	-	Group 3
Pentaerythritol tetranitrate (PETN) - 78-11-5	-	Group 2A

Reproductive toxicity No information available.

STOT - single exposure Causes damage to organs.

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure. -. central nervous system.

Aspiration hazard No information available.

Chronic effects: For TNT: 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, central nervous system, bone marrow, eye, kidneys and liver. Repeated or prolonged skin contact may cause dermatitis.

For TNT, evidence from studies on exposed workers has shown increased incidences of catarats following chronic exposure. Blood effects observed in exposed workers include aplastic anaemia, leucocytosis, leucopenia and methaemoglobinaemia. 2,4,6-Trinitrotoluene is mutagenic in bacteria with and without metabolic activation. This material has been classified by the International Agency for Research on Cancer (IARC) as a Group 3 agent. Group 3 - The agent is not classifiable as to its carcinogenicity to humans. Data available is insufficient for an assessment to be made.

Workers exposed to oral doses of the component RDX (unspecified amounts) have experienced neurological dysfunction (mainly seizures and convulsions), alterations in blood pressure, disorientation, nausea, restlessness, muscle twitching and lethargy. Rats and other exposed animals were reported to develop seizures, tremors, decreased body weight, liver and kidney damage, blood disorders and hyperactivity.

PETN is absorbed slowly through the lungs and gastrointestinal tract but not appreciably through the skin. Vasodilatory agent, therefore causes dilation of the blood vessels and a reduction in blood pressure. Exposure to high doses may cause methaemoglobinaemia. Negative in AMES test for mutagenicity.

Data used to identify the health effects Refer to Section 16 for Key literature references and sources for data used to compile the SDS.

Section 12: Ecological information

Ecotoxicity

Aquatic ecotoxicity Toxic to aquatic life with long lasting effects. Keep out of waterways.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Cyclonite (RDX, Cyclotrimethylenetrinitramine)	-	LC50: 1.9 - 6.6mg/L (96h, Lepomis macrochirus) LC50: 5.6 - 10mg/L (96h, Lepomis macrochirus) LC50: 5.4 - 7.4mg/L (96h, Oncorhynchus mykiss) LC50: 5 - 8.7mg/L (96h, Pimephales promelas) LC50: 3.0 - 5.0mg/L (96h,	-

		Pimephales promelas)	
Pentaerythritol tetranitrate (PETN)	-	LC50: =926mg/L (96h, Pimephales promelas)	-

Terrestrial ecotoxicity There is no data for this product.

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation Bioaccumulation is not expected.

Chemical name	Partition coefficient
Trinitrotoluene (TNT)	1.65
Cyclonite (RDX, Cyclotrimethylenetrinitramine)	0.87
Pentaerythritol tetranitrate (PETN)	2.04

Mobility in soil

Mobility For RDX:. Expected to be mobile in soil.

Other adverse effects

No information available.

Section 13: Disposal considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with federal, state and local regulations.
Should not be released into the environment.

Dispose of product in packaging in a way that is consistent with the Hazardous Substances (Disposal) Notice 2017 and the Act. Treat the substance using a method that changes the characteristics or composition of the substance so that the substance is no longer a hazardous substance; or export the substance from New Zealand as waste.

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..

Contaminated packaging For packages that have been in direct contact with hazardous substances, the person must ensure that the package is rendered incapable of containing any substance. It must be disposed of in a manner that is consistent with the requirements for disposal of the substance that it contained, taking into account the material the package is manufactured from.
Packages may only be reused or recycled if:
- the substance has a physical hazard other than corrosive to metal, and has been treated to remove any residual contents of the hazardous substance;
- or for substances that have a health or environmental hazard, or corrosive to metal, the

contents of the residue in the package are below the threshold for the substance to be classified as hazardous in the Hazardous Substances (Hazard Classification) Notice 2020.

Section 14: Transport information

ROAD AND RAIL TRANSPORT Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

UN number or ID number	0042
Proper shipping name	BOOSTERS
Transport hazard class(es)	1.1D
Hazchem code	E

IATA TRANSPORT PROHIBITED under the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air in Passenger and Cargo Aircraft, and Cargo Aircraft Only.

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

UN number	0042
UN proper shipping name	BOOSTERS
Transport hazard class(es)	1.1D
IMDG EMS Fire	F-B
IMDG EMS Spill	S-X

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available

Special precautions for user
Please refer to the applicable dangerous goods regulations for additional information

Section 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

EPA New Zealand HSNO approval code or group standard	HSR100186
National regulations	See section 8 for national exposure control parameters
Certified handlers, tracking and controlled substance license requirements	Certified handlers are required for some substances. This includes substances requiring a controlled substance license, and most explosives, vertebrates toxic agents, and certain fumigants. Acutely toxic substances which are a Category 1 or 2, such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information Controlled substance licenses are required to possess certain explosives, vertebrate toxic agents and fumigants. See Part 7 of the Health and Safety at Work Regulation 2017 for more information
Other Regulations	Tracking is required for this material.

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

NZIoC	Contact supplier for inventory compliance status.
TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIIC	All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.
TCSI	Contact supplier for inventory compliance status.

Legend:
NZIoC - New Zealand Inventory of Chemicals
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC- Australian Inventory of Industrial Chemicals
TCSI - Taiwan Chemical Substance Inventory

Section 16: Other information

International Agency for Research on Cancer. In: `IARC Monographs on the Evaluation of Carcinogenic Risk to Humans'. World Health Organisation, Vol 65, 1996
Toxicology Profile for RDX; Agency for Toxic Substances and Disease Registry; US Department of Health and Human Services; 01/2012

Prepared By	This Safety Data Sheet has been prepared by IXOM Operations Pty Ltd (Toxicology and SDS Services).
Revision date:	18-Sep-2024
Reason(s) For Issue:	Change to Product Name Revised Primary SDS

Revision Note:
***Indicates updated data since last publication.
Key or legend to abbreviations and acronyms used in the safety data sheet

Legend
SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances
STOT: Specific Target Organ Toxicity
ATE: Acute Toxicity Estimate
LC50: 50% Lethal Concentration
LD50: 50% Lethal Dose

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
**	Hazard Designation	+	Sensitizers

C Carcinogen

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Disclaimer
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 The Supplier 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 Supplier representative or The Supplier at the contact details on page 1.

The Supplier's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

End of Safety Data Sheet