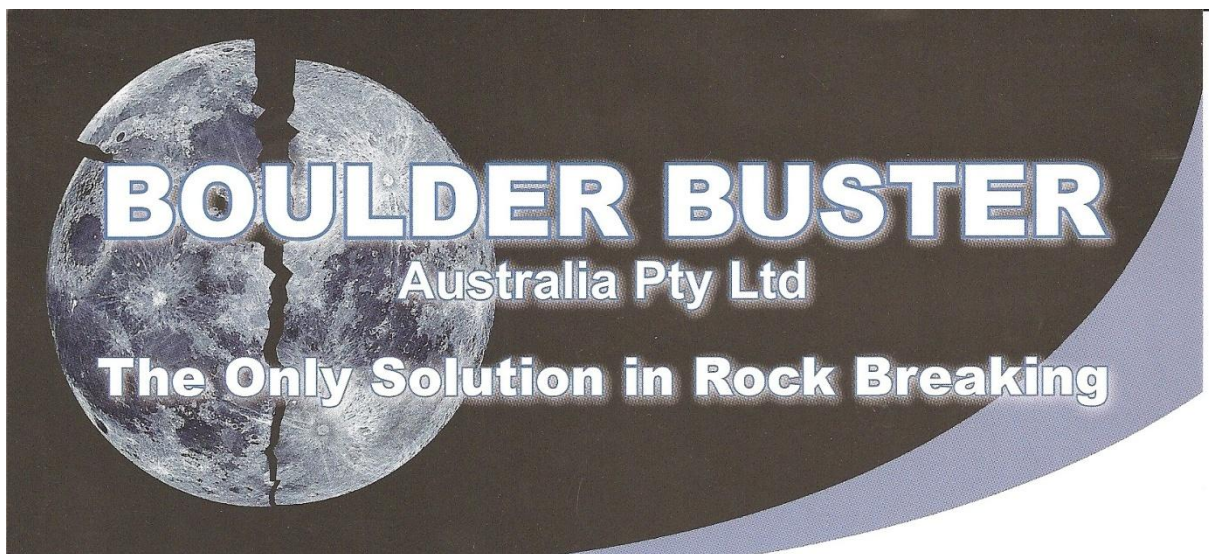


MATERIAL SAFETY DATA SHEET



BOULDER BUSTER CARTIRIDGE

RIMFIRE CARTRIDGE, 10G

BOOSTER CARTRIDGE, 15g

Material Safety Data Sheet

This product should be stored, handled and used in accordance with good industrial and personal hygiene practices and in conformity with any legal regulation. The information contained herein is based on the present state of knowledge and is intended to describe the product from the point of view of safety requirements. It should therefore not be construed as guaranteeing specific product Performance properties.

NAME OF SUBSTANCE BOULDER BUSTER CARTRIDGE RIMFIRE CARTRIDGE 10g BOOSTER CARTRIDGE 15g	CHEMICAL FORMULA Not applicable – Final Product	
UN DESCRIPTION: Cartridges, Power Device	UN No: 0323	CLASS: 1:4S
PHYSICAL PROPERTIES (Nominal) Auto-ignition Temperature >125° Nett Explosive Mass: Boulder Buster Cartridge Rimfire 10g Booster Cartridge 15g 15g Gross Mass: Boulder Buster Cartridge Rimfire 21g Booster Cartridge 37g Approx Dimension: Boulder Buster Cartridge Rimfire 20x64 mm Booster Cartridge 15g 23x72 mm	OTHER CHARACTERISTICS A cartridge consisting of an ignition primer And a nitrocellulose propellant or ball Powder. The configuration is unique and Cannot be fitted or used in a weapon. Initiation may be either by centre fire or by Rimfire percussion cap. The cartridges are Used to break rock in the mining and civil Industry.	
TOXIC PROPERTIES The product as supplied cannot be ingested. Ingestion or handling of propellant powders, or the repeated inhalation of ignition gases, may be hazardous.	OEL – TWA/STEL/C Enclosed and complete product. No OEL prescribed. Refer to specific OEL's for combustion by-products.	

HAZARDS/SYMPTOMS	PREVENTION	FIRE EXTINGUISHING AGENTS FIRST AID
<p>FIRE Will not explode en masse. Exposure to flame will destroy Packaging and may result in the ignition of cartridges.</p>	<p>Store and transport away from radiant heat and open flames. Maintain a distance of at least 8m should any packaging catch alight.</p>	<p>Douse fire with water, dry powder, carbon dioxide, or foam. Wear SCBA when large quantities of cartridges are burning.</p>
<p>EXPLOSION An explosion risk exists only when cartridges are tightly confined in a closed vessel or similar. A pressure build-up may cause an explosion and a scattering of the confined material.</p>	<p>Use cartridges only as specified by the manufacturer. Limit quantity stored to a minimum. Ensure that cartridges are not subject to impact, friction, electrostatic or electric sources, heat.</p>	<p>Douse fire with water, dry powder, Carbon dioxide, or foam. Punctures and Lacerations caused by flying projectiles may be treated in the normal manner.</p>
<p>INHALATION Periodic inhalation of normal combustion products presents No hazard to the user. Typical mass decomposition products include Pb, CO,CO²,H²O,H²,NO²,andN².</p>	<p>Do not use in confined spaces. Ensure good ventilation during use. NO² and oather gases are present in hazardous quantities when cartridges are burnt in mass.</p>	<p>If a headache develops as a result of inhalation of combustion products, remove to fresh air. Ensure that work area has been sufficiently ventilated before resuming work.</p>
<p>HEARING Permanent damage to hearing may result from frequent exposure to impact noise without wearing suitable hearing protection.</p>	<p>Hearing protection which provides at least 50dB(A) attenuation should be worn, or use should be made of the percussion valve type ear muff.</p>	<p>Persons exposed to percussion on a frequent and regular basis should be subjected to an annual audiometric examination. Chronic hearing loss may be untreatable.</p>
<p style="text-align: center;">SPILLAGE and DISPOSAL PRECAUTIONS</p> <p>Design of the product makes spillage of large amounts of propellant unlikely. Propellant powder which has been spilt must be soaked in water for a minimum of one hour and then thrown directly onto a fire. Observe the following precautions when carrying out this action;</p> <ol style="list-style-type: none"> 1) Move at least 5m away from the fire immediately after the wet propellant has been thrown onto the flames. 2) Never burn more than 15g of propellant at any one time in this manner. 3) Never throw dry propellant powder onto a fire,as this may result in serious personal injury. <p>Rimfire cartridges containing no propellant may be fired in the Boulder Buster tool so as to dispose of the initiator. Empty Booster Cartridges may be disposed of one at a time by throwing them into an enclosed fire which protects the operator from flying debris. A sharp report will signal the successful disposal of the initiator.</p>		<p style="text-align: center;">STORAGE REQUIREMENTS</p> <p>Store in a dry place with temperature and humidity preferably between 5 – 35°C (ideally 20°C) and less than 50% Relative Humidity.</p>
<p style="text-align: center;">GENERAL OPERATING PRECAUTIONS Consult User Manual for detailed operating instructions.</p>		

PACKING AND LABELLING

Boulder Buster™ Cartridge Rimfire:

S.I.N. 0323 Group 1.4S. Eight inner boxes each containing 25 cartridges are packed in a cardboard box. Cardboard box is marked **Boulder Buster Cartridge Rimfire**, Gross Mass 5.0 kg. Nett Explosive 2.0 kg. Inner Boxes clearly display the words **“Boulder Buster Cartridge Rimfire”**

Booster Cartridge 15g:

Eight Inner boxes each containing 25 cartridges are packed in a cardboard box.

Cardboard box is marked: **‘Booster Cartridge 15g. Gross Mass 8.1kg. Nett Explosive 3.0 kg.’**

Inner boxes clearly display the words: **‘Booster Cartridge 15g’.**

MEDICAL TREATMENT

Injury arising from accidental discharge of the Boulder Buster cartridge should be treated according to nature and severity. Treat all persons who have inhaled large quantities of ignition products as stretcher cases. Ensure that patients who have inhaled large quantities of ignition gases are observed for 24 hours (effect of Nitrous oxides).

REFERENCES RELATED TO INFORMATION

SABS 0228 -1990.

Occupational Health & Safety Act No 85 of 1993

General Administrative Regulations of Act 85 of 1993

UN Publication “Recommendations on the Transport of Dangerous Goods”.

GENERAL SAFETY PRECAUTIONS

1. KEEP ALL CARTRIDGES AWAY FROM CHILDREN.
2. DO NOT USE CARTRIDGES IN AN ENVIROMENT CONTAINING FLAMMABLE GASES OR DUSTS.
3. DO NOT INITIATE A CARTRIDGE IN IMMEDIATE CONTACT WITH COMBUSTIBLE MATERIALS.
4. DO NOT ATTEMPT TO PUNCTURE, DISASSEMBLE OR MODIFY ANY CARTRIDGE.
5. DO NOT HEAT CARTRIDGE OR DISPOSE OF IN OPEN FIRE.
6. FACE AWAY FROM THE BOULDER BUSTER DURING INITIATION.
7. APPLY SAFETY PRACTICES APPLICABLE TO THE HANDLING OF EXPLOSIVES .