



Material Safety Data Sheet

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Revision Number: 1

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Supplier(s):

Orica Canada Inc.
Maple Street
Brownsburg, QC
For MSDS Requests: 1-450-533-4201

Orica USA Inc
33101 E Quincy Ave
Watkins, CO 80137-9406
For MSDS Requests: 1-303-268-5000

Manufacturer:

BST Manufacturing, Inc.
924 Hawaii Avenue
Minden, LA. 71055
1-318-382-1226

Product Name:

Pentex™, BST™, Osx™ & ProTECT-i™ Cast Boosters

Product Code:

20083

Alternate Name(s):

BST™MPB, BST™-D, Pentex™ CSL, Pentex™ DUO, Pentex™ AP, Pentex™ SB, Pentex™-D, Pentex™ CD, BSX and Osx™ 8 Seismic Boosters, Osx™ 8 L Seismic Boosters, Pentex™ SL, Osx™ 8 Z Seismic Boosters, Pentex™ Avalanche DUO, Pentex™ ProTECT-i, AVR

UN-No:

UN0042

Recommended Use:

Used for initiation of explosive mixtures.

Emergency Telephone Number: FOR CHEMICAL EMERGENCIES (24 HOUR) INVOLVING TRANSPORTATION, SPILL, LEAK, RELEASE, FIRE OR ACCIDENTS: **IN CANADA CALL:** ORICA CANANDA TRANSPORTATION EMERGENCY RESPONSE SYSTEM AT **1-877-561-3636**. **IN US CALL:** CHEMTREC **1-800-424-9300**. **IN THE U.S.** FOR LOST, STOLEN OR MISPLACED EXPLOSIVES CALL: BATFE **1-800-800-3855**. FORM ATF F5400.0 MUST BE COMPLETED AND LOCAL AUTHORITIES (STATE/MUNICIPAL POLICE, ETC.) MUST BE ADVISED.

SECTION 2 – HAZARD IDENTIFICATION

Emergency Overview:

Danger. Risk of explosion by shock, fire or other sources of ignition. Irritating to eyes, respiratory system and skin.

Appearance:

Tan to brown

Physical State:

Solid

Odor:

None

SECTION 3 – COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
2,4,6-Trinitrotoluene (TNT)	118-96-7	30-90
Cyclotrimethylene Trinitramine (RDX)	121-82-4	0-70
Pentaerythritol Tetranitrate (PETN)	78-11-5	0-60
Aluminum	7429-90-5	0-15
Enzymes	9014-01-1	0-5
Enzymes	9000-90-2	0-5

SECTION 4- FIRST AID MEASURES

General Advice:

Not applicable; this is a packaged product that will not result in exposure to the contents under normal conditions of use. In the event of contact, administer first aid appropriate for symptoms present.

Eye Contact:

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact:

Wash off immediately with soap and plenty of water, removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation:

Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is not breathing AND no pulse. Obtain medical advice IMMEDIATELY.

Ingestion: Rinse mouth. Harmful if swallowed. Seek medical attention IMMEDIATELY.

Notes to Physician: No information available.

SECTION 5 – FIRE-FIGHTING MEASURES

Flammable properties: Product burns if ignited, with possible transition to detonation. May ignite or explode if heated under confinement.

Suitable extinguishing media: DO NOT FIGHT FIRES INVOLVING EXPLOSIVES. Evacuate surrounding areas. When controlling fire before involvement of explosives, fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Water may be applied through fixed extinguishing system (sprinklers) as long as people need not be present for the system to operate. Water may be used on small fires.

Unsuitable extinguishing media: DO NOT FIGHT FIRES INVOLVING EXPLOSIVES.

Specific hazards arising from the Chemical: DO NOT FIGHT FIRES INVOLVING EXPLOSIVE MATERIALS. Immediately evacuate all personnel from the area to a safe distance. Guard against re-entry. This product is a high explosive with a mass detonation hazard. Thermal decomposition can lead to release of irritating gases and vapors.

Protective equipment and precautions for fire fighters: As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH approved (or equivalent) and full protective gear.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Methods for containment: Collect loose or spilled solid material for storage or transport to secured magazine.

Methods for cleaning up: Review fire and explosion hazards before proceeding with clean up. Remove and protect ignition sources. Wear protective equipment during clean up. Mop up water using non-sparking tools. It is suggested that only personnel trained in Emergency Response should respond. Verify complete account of product(s). Notify authorities and follow applicable spill reporting requirements.

SECTION 7 - HANDLING AND STORAGE

Handling: This product is an explosive and should only be used under the supervision of trained personnel. Protect containers from physical damage. Keep away from incompatible materials, heat, sparks, flames and other ignition sources. Avoid rough handling.

Storage: Store under moderate temperatures recommended by a technical services representative. Store under dry conditions in a well ventilated magazine that has been approved for explosive storage. Do NOT store explosives in a detonator magazine or detonators in an explosive magazine. Keep away from heat, sparks and flames. Keep containers closed. Explosives should be kept well away from initiating explosives; protected from physical damage; separated from oxidizing materials, combustibles, and sources of heat. Keep away from incompatibles.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures: Full-handling precautions should be taken at all times.

Personal Protective Equipment

Eye/Face Protection: Safety glasses with side-shields are recommended to prevent eye contact.

Skin Protection: Long sleeved clothing. Impervious gloves.

Respiratory protection: Use a NIOSH-approved respirator or equivalent during post-detonation clean up operations.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Tan to Brown	Odor:	None
Physical State:	Solid	Viscosity:	No information available
pH:	No data available	Melting Point/Range:	80 °C/ 176 °F
Flammable Limits (upper):	No data available	Flammable Limits (lower):	No data available
Explosion Power:	No data available	Specific Gravity:	1.5-1.7 g/cc
Water Solubility:	Negligible	Other Solubility:	No information available

Vapor Pressure: Not available
Partition Coefficient (n-octanol/water): No data available.

Oxidizing Properties: No information available

SECTION 10 - STABILITY AND REACTIVITY

Stability: Can explode from impact, heat or friction. PETN explodes at 190-210 °C (374-410 °F). Stable up to approximately 70 °C.
Conditions to avoid: Keep away from heat, impact and friction. Refer to Product Bulletin for proper applications and use procedures.
Incompatible materials; Strong acids. (Nitric Acid). Strong oxidizing agents.
Hazardous decomposition products: Carbon Monoxide & Nitrogen oxides (NO_x).

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information: Decomposition products may be toxic.

Carcinogenicity: The ingredients of this product are not classified as carcinogenic by ACGIH (American Conference of Governmental Industrial hygienists) or IARC (International Agency for Research on Cancer), not regulated as carcinogens by OSHA (Occupational Safety and Health Administration), and not listed as carcinogens by T\NTP (National Toxicology Program).

Irritation: Not applicable.
Corrosivity: Not applicable.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity effects: Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method: Burn under supervision of an expert at and explosive burning ground or destroy by detonation in boreholes, in accordance with applicable local, provincial and federal regulations. Call upon the services of an Orica Canada Inc. or Orica USA Inc. Technical Representative.
Contaminated Packaging: No information available.

SECTION 14 - TRANSPORT INFORMATION

DOT Proper Shipping Name: Boosters, without detonator
Hazard Class: 1.1D
UN-No: UN0042
Packing Group: II
TDG Proper Shipping Name: Boosters, without detonator
Hazard Class: 1.1D
UN-No: UN0042
Packing Group: II

SECTION 15 - REGULATORY INFORMATION

CANADIAN CLASSIFICATION: This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and this MSDS contains all the information required by the CPR
WHMIS hazard class: This product is an explosive and is not regulated by WHMIS.

USA CLASSIFICATION:

SARA Regulations Sections 313 and 40 CFR 372: No reportable components present.

SARA 311/312 Hazardous Categorization

Acute Health Hazard: Yes

Chronic Health Hazard: No
Fire Hazard: Yes
Sudden Release of Pressure Hazard: Yes
Ozone Protection and 40 CFR 42: No reportable quantities of ozone depleting agents.
Other Regulations/Legislations which apply to this product: No information available.

TSCA: Complies

DSL: Complies

NDSL: Complies

SECTION 16 - OTHER INFORMATION

Prepared By: Safety, Health & Environment
303-268-5000

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The information contained herein is offered as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and Orica will not be liable for any damages, losses, injuries or consequential damages which may result from the use of or reliance on any information contained herein.

End of MSDS