{James Libby
{Chris Scott

# Technical Data

## PRODUCT NAME
Blastox®, a patented lead abatement blast additive.

## PRODUCT DESCRIPTION
Blastox® is a granular, complex calcium silicate-based blasting abrasive additive.

USE: Typically used at a 15 percent weight ratio for stabilizing lead in lead-based paint blast removal operations, producing a non-hazardous waste suitable for disposal in a local subtitle D landfill. Use is compatible with standard dry or wet blast equipment.

CHEMICAL REACTIONS: Blastox® produces lead silicates through chemical conversion of the lead in the paint. It is intended solely as a lead stabilizing additive, reducing leachable lead in untreated spent abrasive wastes from up to 100 mg/l to less than 5.0 mg/l (RCRA limit for lead) according to the TCLP.

RESTRICTIONS: Material must be kept dry until preparations are made for field application. Wet or otherwise contaminated Blastox® does not carry a performance guarantee. For dry blasting operations, moisture separators are required and air dryers are recommended. Blastox® is designed with cementitious properties and may solidify in equipment, on substrates and around general work areas upon extended exposure to moisture. Care should be taken to avoid these situations or additional cleaning measures may be required.

## APPLICATION TECHNIQUES
For dry blasting lead painted steel, six (6) to eight (8) pounds of a 15 percent weight ratio blended abrasive must be used per square foot of paint removed for adequate stabilization. For blasting lead painted wood substrates or for blast operations using less than six (6) pounds per square foot of paint removed, contact TDJ Group's Technical Service for specific recommendations.

## *TYPICAL PROPERTIES

| | |
|---|---|
| SPECIFIC GRAVITY: | 3.15-3.22 |
| BULK DENSITY: | 85-90 #/ft³ |
| HARDNESS: | (Mohs) > 6.0 |
| SOLUBILITY: | (Slight) .1%-1.0% |

SCREEN ANALYSIS

| Sieve Size | % Retained |
|---|---|
| 16 | 28 |
| 20 | 24 |
| 30 | 20 |
| 40 | 16 |
| 50 | 10 |
| <50 | 2 |

*These data are a result of historical production performance. TDJ does not imply that future production will exactly demonstrate these typical properties.

## AVAILABILITY
Sold pre-blended with abrasives throughout the United States by licensed blenders and distributors. Contact TDJ's corporate office or your regional manager for a list of local suppliers.

## TECHNICAL SERVICE
Complete technical bulletins and information are available from TDJ Group's corporate office. Technical assistance for specific applications is also available.

## WARRANTY
If Blastox® blended abrasives are blended, used, sampled and tested properly, and spent abrasive material tests hazardous for lead, TDJ will refund the cost of the Blastox® additive, plus additional blending fees associated with the use of Blastox®. TDJ makes no other warranties, expressed or implied. For other heavy metals which may be present in coating systems or unique applications, please contact TDJ Group's Technical Service.

TDJ

The TDJ Group, Inc.
760 - A Industrial Drive
Cary, Illinois 60013
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# MATERIAL SAFETY DATA SHEET

file

(OSHA 29 CRF 1910.1200)
**BLASTOX®**

## SECTION I - IDENTITY

Supplier's Name and Address: The TDJ Group, Inc. 760-A Industrial Drive Cary, Illinois 60013

Information Telephone Number: 847-639-1113 phone ✦ 847-639-0499 fax

Date of Preparation: June 1, 1997

## SECTION II - INGREDIENTS / IDENTITY INFORMATION

Common Name

Blastox® Abrasive Blasting Additive

Ingredients

| | | |
|---|---|---|
| $Ca_3SiO_5$ | TriCalcium Silicate | (CAS# 12168-85-3) |
| $Ca_2SiO_4$ | Di Calcium Silicate | (CAS# 10034-77-2) |
| $Ca_3Al_2O_3$ | TriCalcium Aluminate | (CAS# 12042-78-3) |
| $Ca_4Al_2Fe_2O_{10}$ | Calcium Alumino Ferrite | (CAS# 12068-35-8) |

Trace amounts of CaO and MgO may also be present

## SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS

| | | |
|---|---|---|
| Solubility in water | - | Slight (0.1 - 1.0 %) |
| Specific gravity | - | 3.15 - 3.22 |
| Appearance & Odor | - | Dark Gray with no odor |

The following properties are not applicable as the Blastox® is a solid granular form:

Boiling point, Melting point, Vapor pressure, Vapor Density, Evaporation rate

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Blastox® is not flammable nor explosive.

## SECTION V - REACTIVITY DATA

Blastox® is stable and hazardous polymerization will not occur.

Keep Blastox® dry until used.

## SECTION VI - HEALTH HAZARD DATA

Routes of Entry: Inhalation? Yes Skin? No absorbtion Ingestion? Yes

ACGIH Threshold Limit Value (1988-1989):

Total dust containing no asbestos and less than 1% silica - 10 mg/m$^3$.

OSHA PEL (Transitional):

Total dust 50 million particles per cubic foot.

OSHA PEL (Final):

Total dust 10 mg/m$^3$, Respirable dust 5 mg/m$^3$.

Effects of Overexposure:

| | |
|---|---|
| Acute : | This material contains calcium silicates and calcium aluminates, is alkaline and can dry the skin and may cause caustic burns. Direct contact with the eyes can cause irritation. Inhalation can irritate the upper respiratory system. |
| Chronic : | Abrasive dusts can cause inflammation of the lining tissue of the nose and inflammation of the cornea. Hypersensitive individuals may develop an allergic dermatitis. |
| Signs and Symptoms of Exposure: | Redness to skin, minor irritation to eyes, nose, and throat. |
| Emergency First Aid Procedures: | Irrigate (flood) eyes immediately and repeatedly with clean water. Wash exposed skin areas with soap and water. Apply sterile dressings. Remove from further exposure those individuals who develop signs or symptoms. Consult a physician immediately. |

## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

If Blastox® is spilled it can be cleaned up by using normal dry methods. Use protective clothing to prevent skin exposure. Rubber boots, rubber gloves, tight fitting goggles and OSHA, MSHA, or NIOSH approved respirators should be used. Emergency procedures are not required.

Blastox® can be treated as a common waste for disposal or returned to the container for later use if it is not contaminated or wet.

## SECTION VIII - CONTROL MEASURES

Observe ANSI standard Z88.2-1980 "Practices for Respiratory Protection," and standard Z9.4-19804 "Ventilation and Safe Practices of Abrasive Blasting Operations."

Local exhaust can be used to control airborne dust levels.

Use protective clothing to prevent skin exposure. Rubber boots, rubber gloves, tight fitting goggles and OSHA, MSHA, or NIOSH approved respirators should be used.

Following work with Blastox®, workers should wash with soap and water and apply a moisturizing cream.