



MATERIAL SAFETY DATA SHEET
COMPLIES WITH 29 CFR 1910.1200.
OSHA HAZARD COMMUNICATION RULE

LAST REVISION DATE: 1/15/08

CHEMICAL IDENTITY

LABEL IDENTITY	BARIUM STRONTIUM TITANATE
FORMULA	Ba_{0.5}Sr_{0.5}TiO₃

PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR	cream, powder/target, odorless
BOILING POINT	N/A
DENSITY	NA
pH VALUE	N/A
MELTING RANGE	N/A
FLASH POINT	N/A
INFLAMMABILITY	N/A
IGNITION TEMP.	N/A
SPONTANEOUS FLAMMABILITY	N/A
FIRE PROMPTING PROPERTIES	None
EXPLOSIVE LIMITS	N/A
BULK DENSITY	N/A
WATER SOLUBILITY	Insoluble
FAT SOLUBILITY	N/A
VISCOSITY	N/A
GRAIN SIZE	Varies
VAPOR PRESSURE	N/A

FIRE FIGHTING MEASURES

Use fire fighting measures that suit the surrounding fire. Do not use water or carbon dioxide as extinguishing agent.



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HEALTH HAZARD INFORMATION

SKIN CONTACT	May cause irritation and irritate an Existing dermatitis.
EYE CONTACT	May cause irritation, experienced as redness of the conjunctiva. Liquids can also cause irritation due to drying of solution or slurry, creating airborne dust.
SWALLOWING	May cause nausea.
SKIN ABSORPTION	May show evidence of irritation.
INHALATION	May cause fever, cough, and increase white cell counts. Breathing of dust may aggravate asthma and inflammatory or fibrotic pulmonary disease. This applies to liquids also, due to the drying of solution or slurry creating airborne dust.

FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURES:

INGESTION	Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.
INHALATION	Remove to fresh air and give artificial respiration if not breathing. Oxygen may be given if necessary. Call a physician
SKIN CONTACT	Wash thoroughly with soap and water
EYE CONTACT	Flush thoroughly with plenty of water. If discomfort persists, seek medical attention.

The hazards of this material are mainly due to its sensitizing and mild irritating properties. There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.



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REACTIVITY DATA

Airborne dust particles, especially metal dust, and accumulation of such should be treated as explosives. To minimize danger from dust explosions, adequate ventilation should be provided to spray booth in accordance with American Welding Society publication AWSC2.1-73, and ACGIH publication "Industrial Ventilation."

Decomposition will not occur if used and stored according to specifications. Avoid acids, water/moisture.

SAFE HANDLING AND USE

Local dust pickup recommended for open flowing powdered products. Wear personal protective equipment to protect health if TLV is exceeded while handling product. Store material in a dry location with adequate support for the weight of the product. Use caution when lifting product cartons not to strain your back muscles. Store material away from ignition sources which could catch packaging materials on fire.

SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION:	If there is dustiness, wear respirator selected per OSHA 1910.134, and OSHA 29 CFR 1910.252 and ANSI Z49.1.
HAND PROTECTION:	Gloves recommended
EYE PROTECTION:	When dusty use goggles per OSHA standards.
BODY PROTECTION:	An apron, or other impermeable body protection is suggested. Wash any contaminated clothing before reuse.

ECOLOGICAL INFORMATION

Do not allow material to be released to the environment without proper governmental permits.



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DISPOSAL CONSIDERATIONS

Collect material into containers for recycle or reuse. Do not throw in trash or place in landfill. Refer to governmental and regional requirements.

ACCIDENTAL RELEASE MEASURES

Wear protective equipment to protect against hazards such as over exposure to skin, eyes and respiratory tract. Collect all material, which may be released, into containers. Label containers and hold for proper disposal per local, state, federal or county regulations. Thermal spray products do not present a serious hazard to the environment if they are collected shortly after a spill or release occurs.

THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, SINCE DATA, SAFETY STANDARDS AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, **ANGSTROM SCIENCES** MAKE NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR THE RELIANCE THEREON. USER SHOULD SATISFY HIMSELF THAT HE HAS ALL CURRENT DATA RELEVANT TO HIS PARTICULAR USE.

NA= NOT APPLICABLE

ND= NO DATA FOUND