



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

CHEMICAL IDENTITY

LABEL IDENTITY	BARIUM OXIDE
CHEMICAL NAME/SYNONYMS	BARIUM OXIDE
FORMULA	BaO
CHEMICAL FAMILY	METAL OXIDE
CAS REGISTRY NUMBER	1304-28-5, LISTED ON TSCA.
HAZARDOUS INGREDIENTS	for soluble barium compounds, as Ba
%: ND	TLV: 0.5mg/m3 OSHA/PEL: 0.5mg/m3

PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR	gray white, granulated solid, odorless
BOILING POINT	2000
DENSITY (gm/cc)	5.72
VAPOR PRESSURE @ 20°	NA
% VOLATILE BY VOLUME (%)	NA
REACTION WITH WATER	NA
EVAPORATION RATE (H2O=1)	NA
SOLUBILITY IN WATER	Moderate
MELTING POINT	1923

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	NA
AUTOIGNITION TEMPERATURE (°C)	NA
FLAMMABILITY	Non-flammable
EXTINGUISHING MEDIA	Use dry chemical extinguisher preferred
SPECIAL FIRE FIGHTING PROCEDURES	If water is used, use large volumes. Wear self contained breathing apparatus if involved in a fire.
UNUSUAL FIRE & EXPLOSION HAZARDS	If water is used solutions are toxic and strongly alkaline.



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HEALTH HAZARD INFORMATION

TOXICITY DATA **NA**
HMIS RATING:
HEALTH: na FLAMMABILITY: na REACTIVITY: na PERSONAL PROTECTION: na

ROUTES OF ENTRY INHALATION: **Yes**
SKIN: **Yes**
INGESTION: **Yes**

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: **ND**
EFFECTS OF OVEREXPOSURE (acute and chronic):
INHALATION: **irritation to mucous membranes, nose and throat**
DERMAL/EYE CONTACT: **chemical burns to eyes and skin**

CARCINOGENICITY: Nd NTP: Nd IARC MONOGRAPHS: Nd OSHA REGULATE: Nd

EMERGENCY FIRST AID PROCEDURES:

INGESTION	Seek medical attention.
INHALATION	Remove victim to fresh air, administer oxygen if breathing is difficult and seek medical attention immediately.
SKIN CONTACT	remove contaminated clothing under shower, wash skin off with water.
EYE CONTACT	irrigate with water for 15 minutes, obtain medical attention.

REACTIVITY DATA

STABILITY	Stable
CONDITIONS CONTRIBUTING TO UNSTABILITY	reacts with acids to form BaCo(3); reacts with water to form Ba(OH)(2) and heat.
INCOMPATIBILITY (MATERIALS TO AVOID)	reacts rapidly with mineral acids generating heat
HAZARDOUS DECOMPOSITION PRODUCTS	None known
HAZARDOUS POLYMERIZATION	Will Not Occur
CONDITIONS TO AVOID	generates heat and toxic solutions when dissolved in H2O



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SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
wearing toxic dust respirator, sweep up and transfer to a sealed container

WASTE DISPOSAL METHOD:
Consult federal, state and local regulations for proper disposal.

SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION	NIOSH/MSHA approved respirator if ventilation controls are not possible
LOCAL EXHAUST	fume hood
MECHANICAL (general)	NA
SPECIAL	NA
OTHER	NA
PROTECTIVE GLOVES	liquid proof PVC
EYE PROTECTION	Safety goggles
OTHER PROTECTIVE EQUIPMENT	protective clothing

SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE:
Avoid acids in storage area

TRANSPORTATION REQUIREMENTS	DOT CLASS:	NA
	UN NUMBER:	NA
	IMCO CLASS:	NA
	OTHER:	NA

PRECAUTIONARY LABELING NONE

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NA= NOT APPLICABLE

ND= NO DATA FOUND