



Charkit Chemical Corporation

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**TRANSPORTATION EMERGENCY
CALL CHEMTREC: 800-424-9300**

MATERIAL SAFETY DATA SHEET

**NON-TRANSPORTATION EMERGENCY
CALL CHARKIT: 203-655-3400
FAX: 203-655-8643**

I. PRODUCT IDENTIFICATION:

CHEMICAL NAME> BARIUM HYDROXIDE, 8-HYDRATE
PRODUCT NAME> BARIUM HYDROXIDE
CHEMICAL FAMILY> BARIUM COMPOUNDS
PRODUCT CODE> 700-03300
SYNONYMS> BARIUM HYDROXIDE OCTAHYDRATE
CAS NUMBER> 12230-71-8 6
FORMULA> Ba(OH)₂ · 8H₂O

II. HAZARDOUS INGREDIENTS:

<u>INGREDIENT NAME</u> <u>/CAS NUMBER</u>	<u>EXPOSURE LIMITS</u>	<u>CONCENTRATION (%)</u>
BARIUM HYDROXIDE, 8-HYDRATE		
12230-71-8	OSHA PEL: 0.05mg/m ³ ACGIH TLV: 0.05mg/m ³	BETWEEN 90% - 100%

III. PHYSICAL PROPERTIES:

<u>PHYSICAL FORM></u>	SOLID CRYSTALS
<u>COLOR></u>	COLORLESS OR WHITE
<u>ODOR></u>	ODORLESS
<u>MOLECULAR WEIGHT></u>	NO DATA AVAILABLE
<u>pH></u>	NO DATA AVAILABLE
<u>BOILING POINT></u>	NO DATA AVAILABLE
<u>MELTING/FREEZING POINT></u>	78° C (172° F)
<u>VISCOSITY></u>	NO DATA AVAILABLE
<u>SOLUBILITY IN WATER></u>	APPRECIABLE (GREATER THAN 10%)
<u>SPECIFIC GRAVITY></u>	2.18
<u>BULK DENSITY></u>	NO DATA AVAILABLE
<u>VAPOR PRESSURE></u>	11
<u>EVAPORATION RATE></u>	NO DATA AVAILABLE
<u>% VOLATILE BY VOLUME></u>	0

IV. FIRE AND EXPLOSION DATA

<u>FLASH POINT></u>	NOT APPLICABLE
<u>TEST CUP METHOD></u>	NO DATA AVAILABLE
<u>FLAMMABLE></u>	NO DATA AVAILABLE
<u>COMBUSTIBLE></u>	NO DATA AVAILABLE
<u>UPPER EXPLOSIVE LIMIT></u>	NO DATA AVAILABLE
<u>LOWER EXPLOSIVE LIMIT></u>	NO DATA AVAILABLE
<u>AUTO-IGNITION TEMP></u>	NOT APPLICABLE
<u>EXTINGUISHING MEDIA></u>	ALL EXTINGUISHING MEDIA ARE SUITABLE USE MEDIUM SUITABLE FOR SURROUNDING FIRE
<u>SPECIAL FIRE-FIGHTING></u>	Wear self-contained breathing apparatus and full protective clothing.
<u>PROCEDURES</u>	
<u>UNUSUAL FIRE AND></u>	NONE IDENTIFIED
<u>EXPLOSION HAZARDS</u>	

V. HUMAN HEALTH DATA

ROUTE(S) OF ENTRY> EYES, SKIN, INHALATION, INGESTION

HUMAN EFFECTS AND SYMPTIONS OF OVEREXPOSURE:

INHALATION> EXCESSIVE INHALATION IS IRRITATING; MAY CAUSE RESPIRATORY SYSTEM DAMAGE

INGESTION> HEADACHE, NAUSEA, VOMITING, DIZZINESS, GASTROINTESTINAL IRRITATION

SKIN CONTACT> SEVERE IRRITATION OR BURNS; PROLONGED CONTACT MAY CAUSE DERMATITIS

EYE CONTACT> SEVERE IRRITATION OR BURNS

CHRONIC EXPOSURE> IRRITATION OF RESPIRATORY SYSTEM; CENTRAL NERVOUS SYSTEM DAMAGE; DAMAGE TO SPLEEN, LIVER, BONE MARROW.

AGGRAVATION OF PRE-> NO DATA AVAILABLE
EXISTING CONDITONS

CARCINOGENICITY> NOT LISTED BY NTP, IARC OR REGULATED AS A CARCINOGEN BY OSHA.

VI. FIRST AID

INHALATION> REMOVE TO FRESH AIR. CALL A PHYSICIAN.
IF BREATHING IS DIFFICULT GIVE OXYGEN.
IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION.

INGESTION> IF SWALLOWED CALL A PHYSICIAN. IF CONSCIOUS, IMMEDIATELY INDUCE VOMITING.

SKIN CONTACT> IN CASE OF CONTACT WASH SKIN WITH SOAP AND WATER.
WASH CLOTHING BEFORE REUSING.
CALL A PHYSICIAN IF IRRITATION PERSISTS.

VI. FIRST AID (CONTINUED)

EYE CONTACT> IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR 15 MINUTES
CALL A PHYSICIAN

VII. EMPLOYEE PROTECTION RECOMMENDATIONS

EYE PROTECTION > USE CHEMICAL SAFETY GOGGLES.
DO NOT WEAR CONTACT LENS IF AIRBORNE DUST IS PRESENT.

SKIN PROTECTION > USE CHEMICALLY RESISTENT GLOVES AND CLOTHING.
WASH FACE AND HANDS BEFORE EATING OR DRINKING.

PERSONAL RESPIRATORS> USE A NIOSH/MSHA APPROVED DUST RESPIRATOR IF TLV LIMITS
ARE EXCEEDED.

VENTILATION SYSTEM> USE LOCAL EXHAUST IF DUST CONCENTRATION EXCEEDS TLV LIMITS
OR IF WORKER DISCOMFORT EXISTS.

ADDITIONAL MEASURES> PROVIDE EMERGENCY SHOWERS AND EYE WASH STATIONS.
TRAIN IN THE SAFE USE AND HANDLING OF HAZARDOUS CHEMICALS.

VIII. REACTIVITY DATA:

STABILITY> STABLE UNDER ORDINARY CONDITIONS OF USE AND STORAGE.
CONDITIONS TO AVOID> NONE KNOWN

HAZARDOUS POLYMERIZATION> WILL NOT OCCUR
CONDITIONS TO AVOID> NONE KNOWN

INCOMPATIBILITIES> STRONG ACIDS

DECOMPOSITION TEMPERATURE> NO DATA AVAILABLE

DECOMPOSITION PRODUCTS> NO DATA AVAILABLE

IX. SPILL AND LEAK PROCEDURES:

<u>GENERAL SAFETY</u> >	REMOVE ALL SOURCES OF IGNITION; VENTILATE AREA. PROVIDE PROTECTION FROM INHALATION OF DUST OR FUMES. UTILIZE RECOMMENDED PROTECTIVE CLOTHING AND EQUIPMENT.
<u>SPILL OR LEAK RESPONSE</u> >	SWEEP UP SPILL/LEAK AND PLACE IN CONTAINERS. AVOID DISPERSING DUST INTO AIR. USE CLEAN SHOVEL TO PLACE MATERIAL IN DRY CONTAINER, AND COVER. FLUSH SPILL AREA WITH WATER.
<u>WASTE DISPOSAL</u> >	CHECK FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS. PREVENT WASH WATER FROM ENTERING GROUND WATER

X. SPECIAL PRECAUTIONS AND STORAGE DATA:

<u>STORAGE TEMPERATURE</u> >	<u>MIN:</u> NO DATA AVAILABLE	<u>MAX:</u> NO DATA AVAILABLE
	<u>AMBIENT:</u> NO DATA AVAILABLE	
<u>SHELF LIFE</u> >	NO DATA AVAILABLE	
<u>SPECIAL SENSITIVITY</u> >	NO DATA AVAILABLE	
<u>HANDLING & STORAGE</u> >	STORE IN A COOL, DRY, WELL-VENTILATED AREA	
<u>PRECAUTIONS</u>	STORE IN SECURE POISON AREA.	

XI. SHIPPING INFORMATION:

<u>D.O.T. SHIPPING NAME</u> >	BARIUM COMPOUNDS, N.O.S. (BARIUM HYDROXIDE)
<u>HAZARD CLASS</u> >	6.1
<u>U.N. NUMBER</u> >	1564
<u>PACKING GROUP</u> >	III
<u>LABELS</u> >	KEEP AWAY FROM FOOD
<u>R Q ENTRY REQUIRED</u> >	NO

XII. ANIMAL TOXICITY DATA:

ACUTE TOXICITY:

<u>ORAL LD 50></u>	NO DATA AVAILABLE
<u>DERMAL LD 50></u>	NO DATA AVAILABLE
<u>INHALATION LC 50></u>	NO DATA AVAILABLE
<u>SKIN EFFECTS></u>	NO DATA AVAILABLE
<u>SENSITIZATION></u>	NO DATA AVAILABLE
<u>EYE EFFECTS></u>	NO DATA AVAILABLE

OTHER TOXICITY:

<u>SUBCHRONIC TOXICITY></u>	NO DATA AVAILABLE
<u>CHRONIC TOXICITY></u>	NO DATA AVAILABLE
<u>AQUATIC TOXICITY></u>	NO DATA AVAILABLE
<u>OTHER TOXICITY DATA></u>	NO DATA AVAILABLE

XIII. FEDERAL REGULATORY INFORMATION:

<u>OSHA STATUS></u>	HAZARDOUS
<u>TSCA STATUS></u>	LISTED ON TSCA INVENTORY
<u>CERCLA RQ></u>	NONE, HOWEVER CLASS IS A CERCLA HAZARDOUS SUBSTANCE
<u>RCRA STATUS></u>	D005

SARA TITLE III:

<u>§304 EHS RQ></u>	NOT APPLICABLE
<u>§302 EHS TPQ></u>	NOT APPLICABLE
<u>§313 TOXIC CHEMICALS></u>	YES, CONTAINS BARIUM
<u>§311/312 HAZARD CATEGORIES></u>	ACUTE

OTHER REGULATORY INFORMATION:

WHMIS> 1%

OSHA: OCCUPATIONAL HEALTH AND SAFETY ACT; HAZARD STATUS UNDER OSHA HAZARD COMMUNICATION STANDARD 29.

TSCA: TOXIC SUBSTANCES CONTROL ACT; LISTING DOES NOT INDICATE HAZARD STATUS.

CERCLA SEC. 103: COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (SUPERFUND); RELEASES TO AIR, LAND OR WATER OF THESE HAZARDOUS SUBSTANCES WHICH EXCEED THE REPORTABLE QUANTITY (RQ) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER (800-424-8802); 40 CFR 372.65.

RCRA: RESOURCE CONSERVATION AND RECLAMATION ACT; COMMERCIAL CHEMICAL PRODUCT WASTES DESIGNATED AS ACUTE HAZARDS AND TOXIC; 40 CFR 261.33.

SARA SECTION 304 EHS RQ: REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, LISTED AT 40 CFR 355.

SARA SECTION 302 EHS TPQ: THRESHOLD PLANNING QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE.

SARA SECTION 313 CHEMICALS: TOXIC SUBSTANCES SUBJECT TO ANNUAL RELEASE REPORTING REQUIREMENTS LISTED AT 40 CFR 372.65.

SARA SECTION 311/312 CHEMICALS: HAZARD CATEGORIES FOR REPORTING REQUIREMENTS.

XIV. OTHER REGULATORY INFORMATION:

THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES; OTHER PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THIS MSDS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE.

STATE CODE	COMMENTS:
<u>NJ4</u>	NEW JERSEY; INCLUDED IN 5 PREDOMINANT INGREDIENTS > 1%
<u>PA3</u>	PENNSYLVANIA; NON-HAZARDOUS PRESENT AT 3% OR GREATER
<u>CA65</u>	CALIFORNIA PROPOSITION 65; TO OUR KNOWLEDGE THIS PRODUCT CONTAINS LEVELS OF LISTED SUBSTANCES WHICH CALIFORNIA HAS FOUND TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE EFFECTS
<u>MSL</u>	MASSACHUSETTS SUBSTANCE LIST (MSL); HAZARDOUS SUBSTANCES AND EXTRAORDINARILY HAZARDOUS SUBSTANCES ON THE MSL MUST BE IDENTIFIED WHEN PRESENT IN PRODUCTS

INGREDIENT NAME /CAS NUMBER	CONCENTRATION	STATE CODE
BARIUM HYDROXIDE, 8-HYDRATE 12230-71-8	BETWEEN 90% - 100%	NJ4

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