

Walla Walla Environmental, Inc.

MATERIAL SAFETY DATA SHEET

MSDS Date: 12/31/99
MSDS Number: 68101

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1. PRODUCT IDENTIFICATION

Product Name: JT-20
Product No.: 681xx, 68050
Trade Name: Barium Metaborate Monohydrate
Chemical Family: Inorganic Salts
TSCA Status: XU - In Compliance
OSHA Hazard Classification: Eye Irritant
CFR 1910, 1200 - (Skin and Eye)
DOT Shipping Name: Non-hazardous (not regulated)
DOT Hazard Class: Non-hazardous

HMIS /NFPA Ratings:

Health: 1 Flammability: 0 Reactivity: 0
Personal Protection: Eye Protection, Gloves, and Dust Mask

2. HAZARDOUS INGREDIENTS

Chemical Names	CAS Numbers	Percent Typical	Exposure Limits in Air	
			ACGIH TLV	OSHA PHEL
Barium Metaborate	13701-59-2	90-93	.5 mg/M ³	.5 mg/M ³
Silica	63231-67-4	7-10	5 mg/M ³	-

SARA Title III Section 302
Extremely Hazardous Substances: None

Section 313 Supplier Notification
This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the emergency planning and community right-to-know act of 1986 and of 40 CFR 372:

Chemical Name:	CAS #	Percent	By Weight
Barium Compounds	13701-59-2		90%

3. PHYSICAL PROPERTIES

Vapor density: N/A
Melting point or range: > 1050° C

Specific gravity: 3.37 g/cm³
Boiling point or range: F N/A
Solubility in water: .3 - .4%, water @ 25° C
Vapor pressure: N/A
Appearance and odor FINE WHITE POWDER

4. FIRE AND EXPLOSION

Flash Point: Non-Flammable
Auto ignition temperature, F: NA
Flammable limits in air, volume %: NA
Lower (LEL) NA upper (UEL) NA
Fire extinguishing materials: Use appropriate methods for surrounding fire.

Specific firefighting procedures: Wear self-contained breathing apparatus and protective clothing.

Use due care and caution when fighting any chemical fire.

Unusual fire and explosion hazards: None

5. **HEALTH HAZARD INFORMATION**

Symptoms of overexposure:

For each potential route of exposure.

Inhaled: Bronchial Irritation

Contact with skin or eyes: Irritation of skin and eyes

Absorption through skin: May be absorbed through skin

Ingestion: May be toxic - see below.

Health effects or risks from exposure:

Acute: Oral ingestion: Abdominal pain, Hard breathing, Rapid pulse.

Chronic: Irritation Eyes, nose throat, and skin, producing dermatitis (barium CPDS).

First Aid: Emergency procedures

Eye contact: Remove contact lenses in worn. Flush with water, contact physician.

Skin Contact: Wash with water. If redness persists, contact physician. Wash contaminated clothing

Inhaled: Remove to fresh air, give artificial respiration if necessary.

Swallowed: Contact a physician.

If the victim is unconscious or convulsing Do not induce vomiting or give anything by mouth. Assure that airway is open and lay him on his side with his head lower than his body and transport him immediately to a medical facility. If conscious and not convulsing, give a glass of water to dilute the substance. Vomiting should not be induced without a physician's advice.

Toxicological Information:

Acute Oral Toxicity (Rats): LD50 Male - .85g/kg., Female - .53g/kg.

Acute Inhalation Toxicity (Rats): LC50 > 3.54 mg/l

Acute Dermal Toxicity (Rabbits): LD50 > 2.0g/mg

Acute Toxicity to Freshwater Fish: 96 hr LC50 > 100 ppm

Barium Metaborate is not listed as a carcinogen by US OSHA, NTP or IARC.

Barium Metaborate contains trace quantities of arsenic and lead. These chemicals are found on one of the following lists; federal OSHA, NTP, IARC, Prop 65 list as a carcinogen of a reproductive toxin (California code of regulations title 26 division 22-12000).

6. **REACTIVITY DATA**

Stability: stable

Conditions to avoid:

Incompatibility (materials to avoid): NE

Hazardous decomposition products (including combustion products): NE

Hazardous polymerization: Will not occur

Conditions to avoid: Contact with strongly acidic aqueous systems can release solubilized barium salts, which are toxic when ingested.

7. **SPILL, LEAK, AND DISPOSAL PROCEDURES**

Spill response procedures (include employee protection measures): Wear NIOSH approved Dust Mask, goggles, gloves and coveralls. Shovel and sweep material into drums. Industrial vacuum may be used to pick up final residue. Bathe and wash clothing after spill clean up.

Preparing wastes for disposal (container types, neutralization, etc.): Waste material should be placed in sealed drums and disposed of in landfill for toxic wastes. Do not allow into waterways.

Dispose of empty container in approved landfill or incinerate. Do not reuse Container. Note: Dispose of all wastes in accordance with federal, state, and local regulations.

RCRA Status: Although slightly soluble and ionically stable to > 1050 C, nevertheless when this product is discarded as sold, it would be considered a RCRA hazardous waste, 40 CFR 261.24 - EP Toxicity (Contains Barium Compound)

8. **SPECIAL HANDLING INFORMATION**

Ventilation and engineering controls Use good ventilation, especially when dumping bulk product.

Respiratory protection (type) Do not breathe dust - wear NIOSH approved dust respirator.

Eye Protection (type) Keep out of eyes. Wear eye goggles.

Gloves (specify material) Wear plastic or rubber gloves. Change gloves when they become dirty on inside.

Other clothing and equipment Wear Coveralls.

Work practices, hygienic practices Wash hands before eating or smoking, shower regularly or at end of shift, wear fresh coveralls daily. Clean safety equipment daily or use fresh equipment. Smoking and eating in the work area should be prohibited. Keep dust minimal in work area.

Other handling and storage requirements Keep containers dry

Protective measures during maintenance of contaminated equipment: Wear similar safety equipment as spill response. Remove as much product with shovel or vacuum. Wash dust with water.

9. **SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKE IN HANDLING AND STORING:

Avoid contact with water or strong acids. This material is hygroscopic, so keep storage area dry!

Use ventilation to keep dust level down: Use a personal respirator if dust cannot be controlled.

Store away from heat and use proper hygienic practices.

N/A - Not Applicable

NE- Not Established

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