

BETZDEARBORN INC., WATER MANAGEMENT GROUP -- HARDNESS BUFFER,L291 --  
6850-01-390-4335

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===== Product Identification =====

Product ID:HARDNESS BUFFER,L291

MSDS Date:08/22/1995

FSC:6850

NIIN:01-390-4335

MSDS Number: CLCCM

=== Responsible Party ===

Company Name:BETZDEARBORN INC., WATER MANAGEMENT GROUP

Address:200 WITMER ROAD

City:HORSHAM

State:PA

ZIP:19044

Country:US

Info Phone Num:215-773-6269/800-

877-1940(USA)

Emergency Phone Num:800-877-1940

CAGE:57394

=== Contractor Identification ===

Company Name:BETZDEARBORN INC

Address:4636 SOMERTON ROAD

Box:City:TREVOSE

State:PA

ZIP:19053

Country:US

Phone:215-355-3300

CAGE:1CWF7

Company Name:BETZDEARBORN INC.

Address:4636 SOMERTON ROAD

City:TREVOSE,

State:PA

ZIP:19053

Country:US

Phone:215-942-3355

Contract Num:SP0450-01-M-D931

CAGE:57394

Company Name:SDB CONSULTANTS LTD

Address:401 WHITNEY AVE SUITE 120

Box:City:GRETNA

State:LA

ZIP:70056

Country:US

Phone:504-366-9105  
Contract Num:SP0450-02-M-M253  
CAGE:0PGK2

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Composition/Information on Ingredients  
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Ingred Name:BORIC ACID, DISODIUM SALT, PENTAHYDRATE  
CAS:12179-04-3  
RTECS #:VZ2540000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:NOT DETERMINED  
ACGIH TLV:1 MG/M3

Ingred Name:POTASSIUM HYDROXIDE (CAUSTIC POTASH)  
CAS:1310-58-3  
RTECS #:TT2100000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:C 2 MG/M3  
ACGIH TLV:C 2 MG/M3  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:SODIUM SULFIDE (ANHYDROUS)  
CAS:1313-82-2  
RTECS #:WE1905000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:NOT DETERMINED  
ACGIH TLV:NOT DETERMINED

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Hazards Identification  
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LD50 LC50 Mixture:LD50 (ORAL, RAT) >2,000 MG/KG ESTIMATED  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:TARGET ORGANS: NO EVIDENCE OF  
POTENTIAL CHRONIC EFFECTS. ACUTE: SKIN-MAY CAUSE MODERATE  
IRRITATION TO THE SKIN. EYE-SEVERE IRRITANT TO THE EYES, POSSIBLY  
CORROSIVE. RESPIRATORY-MISTS/AEROSOLS MAY CAUSE IRRITATION TO  
UPPER RESPIRATORY TRACT. INGESTION-MAY CAUSE GASTROINTESTINAL TRACT  
IRRITATION WITH POSSIBLE NAUSEA, VOMITING, ABDOMINAL DISCOMFORT AND  
DIARRHEA.  
Explanation of Carcinogenicity:NO COMPONENT IS CONSIDERED TO BE A  
CARCINOGEN BY THE NATIONAL TOXICOLOGY PROGRAM, THE INTERNATIONAL  
AGENCY FOR RESEARCH ON CANCER, OR THE OCCUPATIONAL SAFETY &

HEALTH

ADMINISTRATION AT OSHA THRESHOLD FOR CARCINOGENS.

Effects of Overexposure:CAUSES IRRITATION OF THE SKIN, EYES, AND/OR RESPIRATORY SYSTEM.

Medical Cond Aggravated by Exposure:NOT KNOWN.

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First Aid Measures  
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First Aid:SKIN-REMOVE CONTAMINATED CLOTHING. WASH EXPOSED AREA WITH A LARGE QUANTITY OF SOAP SOLUTION OR WATER FOR 15 MIN.  
EYE-IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MIN. IMMEDIATELY CONTACT A PHYSICIAN FOR TREATMENT.  
INHALATION-REMOVE VICTIM FROM CONTAMINATED AREA TO FRESH AIR. APPLY FIRST AID TREATMENT AS NECESSARY. INGESTION-DO NOT INDUCE VOMITING. IMMEDIATELY CONTACT PHYSICIAN. DILUTE CONTENTS OF STOMACH USING 3-4 GLASSES MILK OR WATER. NOTES TO PHYSICIAN: NO SPECIAL INSTRUCTIONS.

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Fire Fighting Measures  
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Flash Point Method:PMCC

Flash Point:>93.3C, 200.F

Extinguishing Media:DRY CHEMICAL, CARBON DIOXIDE, FOAM OR WATER.

Fire Fighting Procedures:

FIRE FIGHTERS SHOULD WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS (FULL FACEPIECE TYPE).

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Accidental Release Measures  
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Spill Release Procedures:VENTILATE AREA. USE SPECIFIED PROTECTIVE EQUIPMENT. CONTAIN AND ABSORB ON ABSORBENT MATERIAL. PLACE IN WASTE DISPOSAL CONTAINER. FLUSH AREA WITH WATER. WET AREA MAY BE SLIPPERY. SPREAD SAND/GRIT.

Neutralizing Agent:WEAK ACID

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Handling and Storage  
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Handling and Storage Precautions:HANDLING: NORMAL CHEMICAL HANDLING.

STORAGE: KEEP CONTAINERS CLOSED WHEN NOT IN USE. KEEP DRY.

Other Precautions:HMIS RATINGS: HEALTH=2, FLAMMIBILITY=1, REACTIVITY=0.

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Exposure Controls/Personal Protection  
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Respiratory Protection:A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 & ANSI Z88.2 REGS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT RESPIRATOR USE. USE AIR PURIFYING RES

PIRATORS WITHIN USE LIMITATIONS ASSOCIATED WITH EQUIPMENT OR  
USE SUPPLIED AIR RESPIRATORS. IF AIR-PURIFYING RESPIRATOR USE IS  
APPROPRIATE, USE A RESPIRATOR WITH DUST/MIST FILTERS.

Ventilation: ADEQUATE VENTILATION TO MAINTAIN AIR CONTAMINANTS BELOW  
EXPOSURE LIMITS.

Protective Gloves: NEOPRENE GLOVES - WASH OFF AFTER EACH USE. REPLACE AS  
NECESSARY.

Eye Protection: AIRTIGHT CHEMICAL GOGGLES.

Work Hygienic Practices: WASH HANDS AFTER HANDLING. LAUNDRY CONTAMINATED  
CLOTHING PRIOR TO REUSE.

Supplemental Safety and Health

REAGENT NAME: HARDNESS BUFFER. REAGENT CODE: L291. REAGENT APPLICATION  
AREA: FIELD TEST REAGENT.

===== Physical/Chemical Properties =====

HCC: B3

NRC/State Lic Num: NOT RELEVANT

pH: 10 AS IS

Viscosity: NOT RELEVANT

Evaporation Rate & Reference: < 1.00 (ETHER=1)

Solubility in Water: 100%

Appearance and Odor: WHITE POWDER - SLIGHT SULFUR ODOR

===== Stability and Reactivity Data =====

Stability Indicator/

Materials to Avoid: YES

STRONG OXIDIZING AGENTS.

Stability Condition to Avoid: STABLE UNDER NORMAL STORAGE CONDITIONS.

Hazardous Decomposition Products: THERMAL DECOMPOSITION (DESTRUCTIVE  
FIRES) YIELDS ELEMENTAL OXIDES.

Conditions to Avoid Polymerization: WILL NOT OCCUR

===== Toxicological Information =====

Toxicological Information: ORAL LD50 RAT: >2,000 MG/KG. NOTE-ESTIMATED  
VALUE. DERMAL LD50 RABBIT: >2,000 MG/KG. NOTE-ESTIMATED VALUE.

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==== Ecological Information =====

Ecological:AQUATIC TOXICOLOGY: NO DATA AVAILABLE. BIODEGRADATION: NO DATA AVAILABLE.

==== Disposal Considerations =====

Waste Disposal Methods:WATER CONTAMINATED WITH THIS PRODUCT MAY BE SENT TO A SANITARY SEWER TREATMENT, IN ACCORDANCE WITH ANY LOCAL AGREEMENT, A PERMITTED WASTE TREATMENT FACILITY OR DISCHARGE UNDER A PERMIT. PRODUCT AS IS - INCINERATE OR LAND DISPOSE IN AN APPROVED LAND FILL.

==== MSDS Transport Information =====

Transport Information:DOT HAZARD: NOT APPLICABLE. UN/NA NUMBER: NOT APPLICABLE. DOT EMRGENCY RESPONSE GUIDE #: NOT APPLICABLE.

==== Regulatory Information =====

SARA Title III Information:CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ): NO REGULATED CONSTITUENT PRESENT AT OSHA THRESHOLDS. SARA SECTION 312 HAZARD CLASS: IMMEDIATE (ACUTE). SARA SECTION 302 CHEMICALS: NO R

EGULATED CONSTITUEN T PRESENT AT OSHA THRESHOLDS. SARA SECTION 313 CHEMICALS: NO REGULATED CONSTITUENT PRESENT AT OSHA THRESHOLDS.

Federal Regulatory Information:TSCA: ALL COMPONENTS OF THIS PRODUCT ARE LISTED IN TH TSCA INVENTORY.

State Regulatory Information:CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65) CHEMICALS PRESENT: NO REGULATED CONSTITUENT PRESENT AT OSHA THRESHOLDS. MICHIGAN REGULATORY INFORMATION: NO REGULATED CONSTI TUENT PRESENT AT OSHA THRESHOLDS.

==== Other Information =====

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