



MSDS G23

Supercedes MSDS G23
with 12-28-96 effective date
and MSDS G36 with 1-30-98 effective date.

This Material Safety Data Sheet applies to the following Baldwin Filters Part Numbers:

BW5070	BW5073	BW5076
BW5071	BW5074	BW5082
BW5072	BW5075	BW5086

BetzDearborn Material Safety Data Sheet

Effective Date: 30-JUN-98

Printed Date: 13-FEB-98

1) Chemical Product and Company Identification

Product Name: ENDCOR 4733 & BetzDearborn TR84733

Production Application Area: A closed cooling water corrosion treatment

Company Address:

BetzDearborn

4636 Somerton Road, Trevoese, PA 19053

Information Phone Number - (215) 355-3300

Emergency Telephone (Health/Accident): (800) 877-1940 (USA)

2) Composition/Information On Ingredients

Information for specific product ingredients as required by the U.S. OSHA Hazard Communication Standard is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation.

HAZARDOUS INGREDIENTS

CAS#	Chemical Name
7558-79-4	Disodium Phosphate (Sodium Phosphate, Dibasic): Irritant (eyes)
7632-00-0	Sodium Nitrite: Oxidizer; toxic (by ingestion); potential blood toxin
7631-95-0	Sodium Molybdate (Molybdic Acid, Disodium Salt): potential irritant (respiratory)
7631-99-4	Sodium Nitrate: Oxidizer; potential blood toxin
29385-43-1	1-H-Benzotriazole, Methyl- (Tolyltriazole; TTA): Solid is an irritant (by all routes); liquid is corrosive
6834-92-0	Silicic Acid, Disodium Salt (Sodium Metasilicate): Corrosive (eyes and moist tissue)

No component is considered to be a carcinogen by the National Toxicology Program, the International Agency for Research on Cancer, or the Occupational Safety and Health Administration at OSHA thresholds for carcinogens.

3) Hazards Identification

EMERGENCY OVERVIEW

DANGER: May cause moderate irritation to the skin. Potential skin sensitizer. Severe irritant to the eyes. Mists/aerosols cause irritation to the upper respiratory tract.

DOT Hazard: Oxidizer

Emergency Response Guide: #140

Odor: Slight

Appearance: White to Yellow, Briquettes

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

Proper Fire-Extinguishing Media: Flood with water. Use of CO² or foam may not be effective.

POTENTIAL HEALTH EFFECTS

Acute Skin Effects:	Primary route of exposure. May cause moderate irritation to the skin. Potential skin sensitizer.
Acute Eye Effects:	Severe irritant to the eyes.
Acute Respiratory Effects:	Primary route of exposure; Mists/aerosols cause irritation to the upper respiratory tract.
Ingestion Effects:	May cause severe gastrointestinal irritation.
Target Organs:	Prolonged or repeated exposures may cause CNS depression, primary irritant dermatitis, skin sensitization and/or toxicity to the blood.
Medical Conditions	
Aggravated:	Not Known
Symptoms of Exposure:	Causes irritation of the skin, eyes, and/or respiratory system.

4) First Aid Measures

Skin Contact:	Remove contaminated clothing. Wash exposed area with a large quantity of soap solution or water for 15 minutes.
Eye Contact:	Immediately flush eyes with water for 15 minutes. Immediately contact a physician for additional treatment.
Inhalation:	Remove victim from contaminated area to fresh air. Apply appropriate first aid treatment as necessary.
Ingestion:	Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. Immediately contact a physician. Dilute contents of stomach using 3-4 glasses milk or water.

5) Fire Fighting Measures

Fire Fighting Instructions:	Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).
Extinguishing Media:	Flood with water. Use of CO ² or foam may not be effective.
Hazardous Decomposition	
Products:	Thermal decomposition (destructive fires) yields elemental oxides.
Flash Point:	> 200F > 93C P-M(CC)
Miscellaneous:	Oxidizer UN1479; Emergency Response Guide #140

6) Accidental Release Measures

Protection and Spill Containment: 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.

Disposal Instructions: Water contaminated with this product may be sent to a sanitary sewer treatment facility, in accordance with any local agreement, a permitted waste treatment facility or discharged under a permit. Product as is - incinerate or land dispose in an approved landfill.

7) Handling and Storage

Handling: Oxidizer. Liberates chlorine dioxide when acidified. Avoid all contact with reducing agents, oils, greases and organics.

Storage: Keep container closed when not in use. Reasonable and safe chemical storage. Keep dry.

8) Exposure Controls/Personal Protection

EXPOSURE LIMITS

Chemical Name	PEL (OSHA)	TLV (ACGIH)
Disodium Phosphate (Sodium Phosphate, Dibasic)	Not Determined	Not Determined
Sodium Nitrite	Not Determined	Not Determined
Sodium Molybdate (Molybdic Acid, Disodium Salt)	5 MG/M3 (AS Mo)	5 MG/M3 (AS Mo)
Sodium Nitrate	Not Determined	Not Determined
1-H-Benzotriazole, Methyl- (Tolyltriazole; TTA).....	Not Determined	Not Determined

Silicic Acid, Disodium Salt (Sodium Metasilicate).....Not DeterminedNot Determined

Engineering Controls: Adequate ventilation to maintain air contaminants below exposure limits.

Personal Protective Equipment: Use protective equipment in accordance with 29 CFR 1910 Subpart 1

Respiratory Protection: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Use air purifying respirators within use limitations associated with the equipment or else use supplied air-respirators. If air-purifying respirator use is appropriate, use a respirator with dust/mist filters.

Skin Protection: Neoprene gloves. Wash off after each use. Replace as necessary.

Eye Protection: Airtight chemical goggles.

9) Chemical and Physical Properties

DensityNo Data

Freeze Point (F).....NA

Freeze Point (C).....NA

Viscosity (cps 70F, 21C).....NA

Vapor Pressure (mmHG).....< 0.1

Vapor Density (air=1)< 1.00

% Solubility (water).....~ 10.0

NA = Not Applicable

ND = Not Determined

OdorSlight

AppearanceWhite to Yellow

Physical StateBriquettes

Flash Point P-M(CC)> 200F > 93C

pH 5% Sol. (Approx.)~ 10.0

Evaporation Rate (Ether = 1)< 1.00

10) Stability and Reactivity

Stability: Stable under normal storage conditions.

Hazardous Polymerization: Will not occur.

Incompatibilities: May react with organics or reducing agents.

Decomposition Products: Thermal decomposition (destructive fires) yields elemental oxides.

BetzDearborn Internal Pumpout /Cleanout Categories: "B"

11) Toxicological Information

Oral LD50 RAT: ~ 840 mg/kg (NOTE: Estimated Value)

Dermal LD50 RABBIT: > 2,000 mg/kg (NOTE: Estimated Value)

12) Ecological Information

Aquatic Toxicology: No Data Available.

Biodegradation: No Data Available.

13) Disposal Considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is: D001 = Ignitable.

Please be advised, however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

14) Transport Information

DOT HazardOxidizer

UN / NA NumberUN1479

DOT Emergency Response Guide #.....140

15) Regulatory Information

TSCA: All components of this product are listed in the TSCA Inventory.

CERCLA and/or SARA Reportable Quantity (RQ): 11,166 lbs. due to Disodium Phosphate (Sodium Phosphate, Dibasic); 985 lbs. due to Sodium Nitrite.

SARA Section 312 Hazard Class: Immediate (acute); Delayed (Chronic); Fire

SARA Section 302 Chemicals: No regulated constituent present at OSHA thresholds

SARA Section 313 Chemicals:

CAS #	Chemical Name	Range
7632-00-0	Sodium Nitrite	6.0-10.0%
7631-99-4	Sodium Nitrate	6.0-10.0%

California 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 constituent present at OSHA thresholds.

16) Other Information

NFPA/HMIS.....Code	Code Translation
Health.....2	Moderate Hazard
Fire.....1	Slight Hazard
Reactivity.....0	Minimal Hazard
Special.....OXY	DOT or NFPA Oxidizer
(1) Protective Equipment.....B	Goggles, Gloves

(1) Refer to Section 8 of this MSDS for additional protective equipment recommendations.



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