



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

BW5136	BW5141	BW5182
BW5137	BW5142	BW5183
BW5138	BW5143	
BW5139	BW5178	
BW5140	BW5179	

I. Product and Company Identification

Emergency Only Telephone: (800) 424-9300 Inside the US, Canada and the U.S. Virgin Islands
(703) 527-3887 Outside the US (collect calls accepted)

Information Telephone: (800) 822-5394

II. Hazards Identification

Physical State: Solid [Pellet].

Emergency Overview: DANGER! CORROSIVE MATERIAL. HARMFUL OR FATAL IF INHALED. HARMFUL OR FATAL IF SWALLOWED. MAY CAUSE SEVERE BURNS TO ALL ROUTES OF EXPOSURE. CONTAINS MATERIAL WHICH CAN CAUSE CANCER. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. POSSIBLE REPRODUCTIVE HAZARD. CONTAINS MATERIAL THAT MAY CAUSE ADVERSE REPRODUCTIVE EFFECTS, BASED ON ANIMAL DATA. CONTAINS MATERIAL THAT MAY ADVERSELY AFFECT THE DEVELOPING FETUS.

Do not breathe dust. Do not ingest. Avoid contact with eyes and skin. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Routes of Entry: Skin, eyes, inhalation and ingestion.

Potential Acute Health Effects

Eyes: Corrosive to the eyes. Causes burns.
Skin: Corrosive to the skin. Causes burns.
Ingestion: Harmful or fatal if swallowed. May cause corrosive damage in the mouth, throat and stomach.
Inhalation: Harmful or fatal if inhaled. Corrosive to the respiratory tract. Symptoms may be delayed.

Potential Chronic Health Effects

Chronic Effects: Contains material that may cause target organ damage, based on animal data.
Carcinogenicity: Contains material that can cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: Contains material that has been investigated as a developmental hazard.
Developmental Effects: Contains material which may cause developmental abnormalities, based on animal data.
Fertility Effects: Contains material which may impair fertility, based on animal data.
Target Organs: Contains material which may cause damage to the following organs: kidneys, the reproductive system, mucous membranes, upper respiratory tract, skin, eyes, central nervous system (CNS), nose/sinuses.

Over-Exposure Signs/Symptoms

Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing

Ingestion: Adverse symptoms may include the following: stomach pains

Skin: Adverse symptoms may include the following: irritation, redness

Eyes: Adverse symptoms may include the following: pain or irritation, watering, redness

Medical Conditions

Generally Aggravated

by Exposure: Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

III. Composition/Information on Ingredients

United States

Name	CAS Number	%
Sodium nitrite	7632-00-0	30-60
Disodium metasilicate	6834-92-0	10-30
Methyl-1H-benzotriazole	29385-43-1	5-10
Disodium tetraborate, anhydrous	1330-43-4	5-10
Octadecanoic acid, magnesium salt (2:1)	557-04-0	1-5
Sodium nitrate	7631-99-4	0.1-1
1(3H)-Isobenzofuranone, 3,3-bis(4-hydroxyphenyl)-	77-09-8	0.1-1

Canada

Name	CAS Number	%
Sodium nitrite	7632-00-0	30-60
Disodium metasilicate	6834-92-0	10-30
Disodium tetraborate, anhydrous	1330-43-4	5-10
Octadecanoic acid, magnesium salt (2:1)	557-04-0	1-5
1(3H)-Isobenzofuranone, 3,3-bis(4-hydroxyphenyl)-	77-09-8	0.1-1

Mexico

Name	UN Number	IDLH	Classification			Special	CAS Number	%
			H	F	R			
Sodium nitrite	UN1500	-	4	0	0	OX	7632-00-0	30-60
Methyl-1H-benzotriazole	Not regulated	-	1	0	0		29385-43-1	5-10
Disodium metasilicate	UN1759	-	3	0	1		6834-92-0	10-30
Octadecanoic acid, magnesium salt (2:1)	Not regulated	-	1	0	0		557-04-0	1-5
Disodium tetraborate, anhydrous	Not regulated	-	0	0	0		1330-43-4	5-10

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

IV. First Aid Measures

Eye Contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin Contact: In case of contact immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Inhalation:	Move exposed person to fresh air. If not breathing, or if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing, such as a collar, tie, belt, or waistband. Get medical attention immediately.
Protection of First-Aiders:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
Notes to Physician:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

V. Fire-Fighting Measures

Flammability of the Product:	Not flammable. However this product contains a strong oxidizer, sodium nitrite, which enhances the burning rate of other materials.
Extinguishing Media Suitable:	Use dry chemical, CO ₂ , water spray (fog), or foam.
Not Suitable:	None known.
Special Exposure Hazards:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Hazardous Thermal Decomposition Products:	Decomposition products may include the following materials: Oxides of carbon, oxides of nitrogen, metal oxide/oxides, toxic fumes.
Special Protective Equipment for Fire-Fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

VI. Accidental Release Measures

Personal Precautions:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).
Methods for Cleaning Up Small Spill:	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large Spill:	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements, or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and section 13 for waste disposal.

VI. Handling and Storage

Handling: Put on appropriate personal protective equipment (see Section 8). Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep containers closed when not in use. Keep dry. Do not store at elevated temperatures nor near oxidizers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

VIII. Exposure Controls/Personal Protection

United States

Ingredient

Disodium tetraborate, anhydrous

Exposure Limits

ACGIH TLV (United States, 1/2009)

STEL: 6 mg/m³ 15 minute(s)

TWA: 2 mg/m³ 8 hour(s)

NIOSH REL (United States, 6/2009)

TWA: 1 mg/m³ 10 hour(s)

OSHA PEL 1989 (United States, 3/1989)

TWA: 10 mg/m³ 8 hour(s)

Octadecanoic acid, magnesium salt (2:1)

ACGIH TLV (United States, 1/2008)

TWA: 10 mg/m³ 8 hour(s). Form: Total particulate mass

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	
Disodium tetraborate, anhydrous	US ACGIH 1/2009	-	2	-	-	6	-	-	-	-	
	AB 4/2009	-	1	-	3	-	-	-	-	-	[3]
	BC 7/2009	-	2	-	-	6	-	-	-	-	[a]
	ON 8/2008	-	2	-	-	6	-	-	-	-	[b]
	QC 6/2008	-	1	-	-	-	-	-	-	-	
Octadecanoic acid, magnesium salt (2:1)	US ACGIH 1/2008	-	10	-	-	-	-	-	-	-	[c]
	AB 6/2008	-	10	-	-	-	-	-	-	-	
	BC 6/2008	-	10	-	-	-	-	-	-	-	
	ON 6/2008	-	10	-	-	-	-	-	-	-	[d]

[3]Skin sensitization

Form: [a]Inhalable [b]The notation "inhalable" following the name of an agent in this Schedule means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the American Conference of Governmental Industrial Hygienists (ACGIH) particle-size selective criteria; and (b) has the cut point of 100 microns at 50 percent collective efficiency. [c]Total particulate mass [d]total dust

Mexico

Ingredient	Exposure limits
Disodium tetraborate, anhydrous	NOM-010-STPS (Mexico, 9/2000) LMPE-PPT: 1 mg/m ³ 8 hour(s)
Octadecanoic acid, magnesium salt (2:1)	ACGIH TLV (United States, 1/2008) TWA: 10 mg/m ³ 8 hour(s). Form: Total particulate mass

Consult local authorities for acceptable exposure limits.

Recommended Monitoring

Procedures:

If this produce contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering Controls:

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor, or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene:

Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection

Eyes:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or dusts.

Skin:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory:

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the produce, and the safe working limits of the selected respirator.

Hands:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. > 8 hours (breakthrough time)

Environmental Exposure

Controls:

Emissions from ventilation or work process equipment should be checked to controls ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

IX. Physical and Chemical Properties

Physical State:

Solid [Pellet].

Flash Point:

Closed cup: >93°C (>199.4°F)

Auto-Ignition Temperature:

Not available.

Flammable Limits:

Not available.

Color:

White to yellowish.

Odor:

Slight.

pH:

10.5 [Conc. (% w/w):1%]

Boiling/Condensation Point: Not available.
Melting/Freezing Point: Not available.
Critical Temperature: Not available.
Relative Density: 55 lb/cu
Vapor Pressure: <0.013 kPa (0.1 mmHg)
Vapor Density: <1 [Air = 1]
Volatility: Not available
Odor Threshold: Not available
Evaporation Rate: <1 (ether (anhydrous) = 1)
Solubility: Partially soluble in the following materials: cold water and hot water.
LogK_{ow}: Not available.

IX. Stability and Reactivity

Stability and Reactivity: Stable.
Conditions to Avoid: No specific data.
Materials to Avoid: Reactive or incompatible with the following materials: oxidizing materials, reducing materials, metals, acids, alkalis and moisture.
Hazardous Decomposition Products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous Polymerization: Under normal conditions of storage and use, hazardous reactions will not occur.

XI. Toxicological Information

Acute Toxicity

Ingredient Name	Result	Species	Dose	Exposure
Sodium nitrite	LC50 Inhalation Dusts and Mists	Rat	5.5 mg/m ³	4 hours
	LD50 Oral	Rat	85 mg/kg	-
Disodium metasilicate	LD50 Oral	Rat	>1000 mg/kg	-
Disodium tetraborate, anhydrous	LD50 Oral	Rat	1200 mg/kg	-

Chronic Toxicity: Not available.
Irritation/Corrosion: Not available.
Sensitizer: Not available.

Carcinogenicity

Classification

Ingredient Name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Disodium tetraborate, anhydrous	A4	-	-	-	-	-
Octadecanoic acid, magnesium salt (2:1)	A4	-	-	-	-	-
1(3H)-Isobenzofuranone, 3,3-bis(4-hydroxyphenyl)-	-	2B	-	-	Possible	-

XII. Ecological Information

Exotoxicity: Not readily biodegradable. Water polluting material. May be harmful to the environment if released in large quantities. This material is very toxic to aquatic life.

Aquatic Toxicity:

Ingredient Name	Species	Exposure	Result
Sodium nitrite	Fish	96 hours	Acute LC50 0.56 mg/L
Disodium tetraborate, anhydrous	Fish	96 hours	Acute LC50 104000 µg/L

Persistence/Degradability:

Product Name	Test	Result	Dose	Inoculum
TR84746	-	1.92% - Not readily – 28 days	-	-
	-	0% - Not readily – 5 days	-	-

Other Adverse Effects: No known significant effects or critical hazards.

XIII. Disposal Considerations

Waste Disposal Method: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions, and any by-products should, at all times, comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

XIV. Transport Information

Refer to Bill of Lading or container label for DOT or other transportation hazard classification, if any.

XV. Regulatory Information**United States**

HCS Classification: Highly toxic material
Corrosive material
Carcinogen
Target organ effects

U.S. Federal Regulations:

TSCA 5(a) final significant new use rules: Sodium nitrite
TSCA 8(a) IUR: water; 2-Propenoic acid, homopolymer, sodium salt; Polyethylene glycol
United States Inventory (TSCA 8b): All components are listed or exempted.
TSCA 8(d) H and S Data Reporting: Sodium nitrite: 1991
TSCA 12(b) One-Time Export: Sodium nitrite

SARA 302/304/311/312 Extremely Hazardous Substances: No products were found.

SARA 302/304 Emergency Planning and Notification: No products were found.

SARA 302/304/311/312 Hazardous Chemicals: Disodium tetraborate, anhydrous; disodium metasilicate; sodium nitrite

SARA 311/312 MSDS Distribution – Chemical Inventory – Hazard Identification:
Disodium tetraborate, anhydrous: Immediate (acute) health hazard; Disodium metasilicate: Immediate (acute) health hazard, Delayed (chronic) health hazard; Sodium nitrite: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: Sodium nitrite

Clean Air Act (CAA) 112 accidental release prevention: Ethylene oxide

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: Ethylene oxide

Clean Air Act Section 112(b)**Hazardous Air****Pollutants (HAPs):** Not listed**Clean Air Act Section 602****Class I Substances:** Not listed**Clean Air Act Section 602****Class II Substances:** Not listed**DEA List I Chemicals****(Precursor Chemicals):** Not listed**DEA List I Chemicals****(Essential Chemicals):** Not listed**SARA 313****Form R – Reporting Requirements Supplier Notification**

Product Name	CAS Number	Concentration
Sodium nitrite	7632-00-0	30 – 60

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

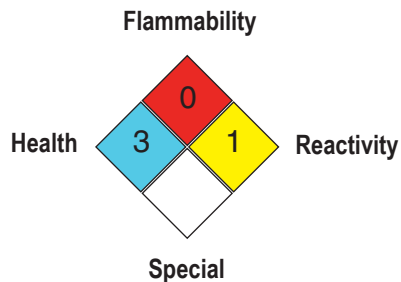
State Regulations:**Massachusetts:** The following components are listed: Sodium nitrite; Boron sodium oxide**New York:** The following components are listed: Sodium nitrite**New Jersey:** The following components are listed: Sodium nitrite; Nitrous acid, Sodium salt**Pennsylvania:** The following components are listed: Nitrous acid, Sodium salt; Boron sodium oxide (B4NA2O7); Nitric acid sodium salt**California Prop 65:****WARNING:** This product contains less than 0.1% of a chemical known to the State of California to cause cancer.**WARNING:** This product contains less than 1% of a chemical known to the State of California to cause cancer.

Ingredient Name	Cancer	Reproductive	No Significant Risk Level	Maximum Acceptable Dosage Level
1(3H)-Isobenzofuranone,	Yes	No	No	No
3,3-bis(4-hydroxyphenyl)- Ethylene oxide	Yes	Yes	Yes	Yes

Canada**WHMIS (Canada):****Class D-1B:** Material causing immediate and serious toxic effects (Toxic).**Class D-2A:** Material causing other toxic effects (Very toxic).**Class E:** Corrosive material**Canadian List:****CEPA Toxic Substances:** None of the components are listed.**Canadian NPRI:** The following components are listed: Sodium nitrite**Canada Inventory:** All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Mexico
Classification:



International Regulations
International Lists:

Australia Inventory (AICS): All components are listed or exempted.
China Inventory (IECSC): All components are listed or exempted.
Japan Inventory: Not determined.
Korea Inventory: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines Inventory (PICCS): All components are listed or exempted.

Chemical Weapons
Convention List

Schedule I Chemicals: Not listed

Chemical Weapons
Convention List

Schedule II Chemicals: Not listed

Chemical Weapons
Convention List

Schedule III Chemicals: Not listed

XVI. Other Information

Label Requirements:

CORROSIVE MATERIAL. HARMFUL OR FATAL IF INHALED. HARMFUL OR FATAL IF SWALLOWED. MAY CAUSE SEVERE BURNS TO ALL ROUTES OF EXPOSURE. CONTAINS MATERIAL THAT CAN CAUSE CANCER.

Hazardous Material
Information System (U.S.A.):

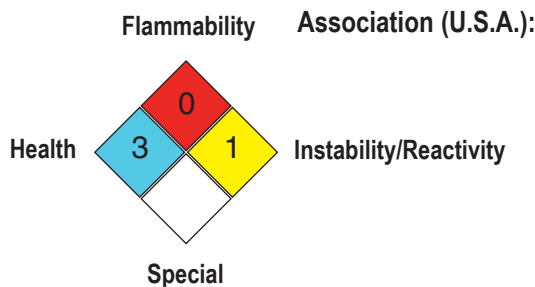
Health	*3
Fire Hazard	0
Reactivity	1
Personal Protection	C

Hazard Ratings

4 = Extreme
 3 = Serious
 2 = Moderate
 1 = Slight
 0 = Minimal

See section 8 for more detailed information on personal protection

National Fire Protection



References: Available on request.

All information, recommendations, and suggestions appearing herein concerning this compound are based upon data obtained from the raw material manufacturers and/or recognized technical sources; however, Dober Chemical Corp. makes no warranty, representation, or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of the product. Since actual use by others is beyond our control, Dober Chemical makes no warranty, express or implied, as to the effects of such use, the results to be obtained or the safety and toxicity of the product. The data in this MSDS relate only to the specific product designated herein and do not relate to use in combination with any other material or in any process.

Baldwin Filters does not develop, prepare, or review the contents of any Material Safety Data Sheet; the MSDS is provided by Dober Chemical Corp., the manufacturer of the chemical in our product. The statements, technical information and recommendations contained herein are transmitted without warranty or guarantee of any kind, expressed or implied by Baldwin Filters. Furthermore, Baldwin Filters assumes no responsibility for any loss, damage or expense, direct or consequential, arising out of their use.

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