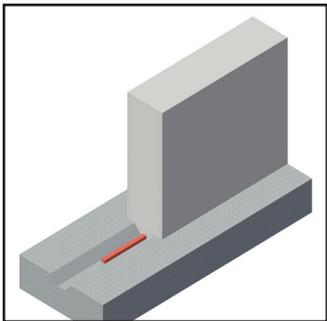




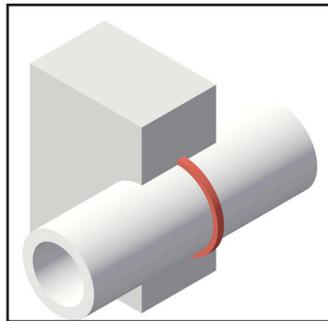
Hydrophilic Waterstop — Bentonite-free

Type NB190®

From the manufacturer of **EARTH SHIELD®**



Earth Shield® Type NB190® (Profile A) is the ideal waterstop for concrete construction joints.



Earth Shield® Type NB190® (Profile A) can be used for pipe or column joints.

Type NB190® is a modern, hydrophilic rubber waterstop with unmatched durability and watersealing capabilities. Manufactured NON-BENTONITE, modified chloroprene rubber, Type NB190® more than doubles its original size (400% volume swell) when exposed to water. This expansion creates an effective compression seal within joints of limited to no movement. Type NB190® can expand and reexpand unlimited times with virtually no loss of physical properties. Additionally, Type NB190® has excellent resistance to many chemicals, is heat-resistant, and can be safely used in drinking water.

- Comprised of **NON-BENTONITE**, modified chloroprene rubber
- 100-plus year lifespan
- Simple, low cost installation
- Ideal for retrofit as well as new construction
- Most profiles have a minimum of 231 ft (100 psi) resistance to water head pressure

Typical Applications

- Water treatment plants
- Wastewater treatment
- Pipe penetrations
- Storage tanks
- Slab on grade
- Foundations
- Tunnel segments
- ... And many more

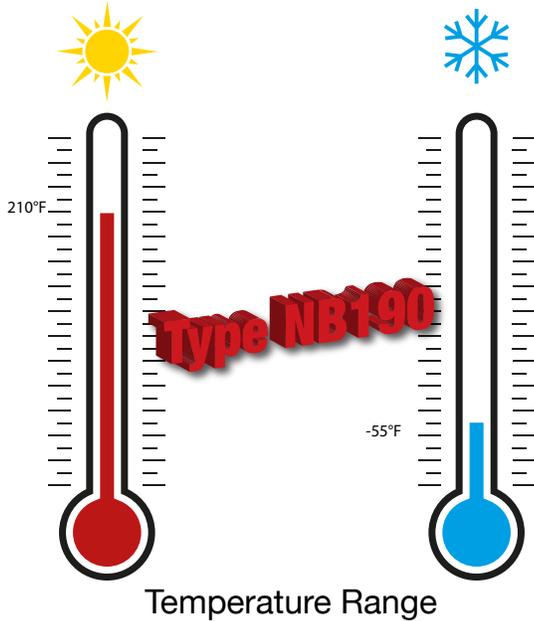
JP Specialties, Inc.
Phone: 800-821-3859; 951-763-7077
Fax: 951-386-0160

www.jpsspecialties.com

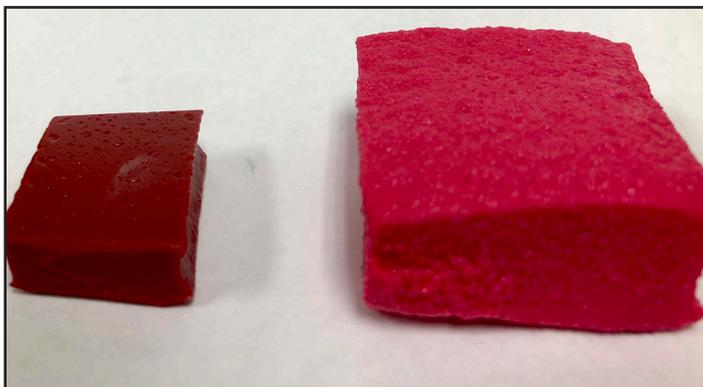


Earth Shield® Modified Chloroprene Strip Applied (SA) Waterstop Basic Use

Earth Shield® Modified Chloroprene Strip Applied Waterstop is used as a fluid-tight diaphragm, running along the joint, for water treatment plants, waste water treatment plants, and fluid containment structures. Earth Shield® Modified Chloroprene Strip Applied Waterstops are intended for **non-moving construction joints only**.



Unlike bentonite-based, strip applied waterstop, Earth Shield® Modified Chloroprene Strip Applied Waterstops do not lose their structural integrity and can expand and reexpand an unlimited number of times without polymer degradation.



Installation

Install Earth Shield® Modified Chloroprene Strip Applied Waterstops in all non-moving, concrete construction joints. Waterstop should be centered in, and run the extent of the joint. Adhere to concrete using Type NB190® Adhesive. Ensure that minimum concrete clear cover is three inches on all sides of the waterstop (two inches for Profile B).



Specifications

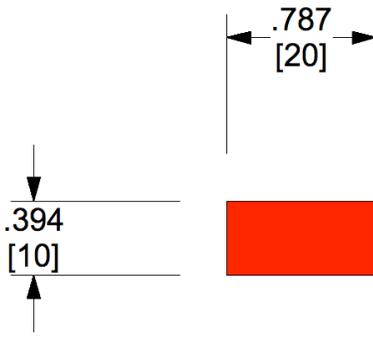
Standard 3-part Specifications are available at our website in Microsoft® Word and Adobe® PDF format. Call our Technical Sales Staff for additional help with your specification.

Suggested Proprietary Short Form Guide Specification Section 03150 (Master Format 2004 – 03 15 13) Earth Shield® Modified Chloroprene Strip Applied Waterstop

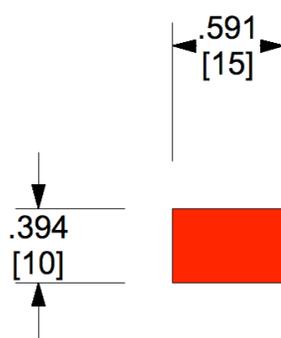
Waterstop indicated in drawings and specifications for non-moving construction joints shall be Earth Shield® Modified Chloroprene Strip Applied Waterstop Type NB190® Profile No. #### [Designer insert appropriate profile number here [A, B, or C]] as manufactured by J P Specialties, Inc.; Murrieta, CA 92562; Phone 951-763-7077

1. Earth Shield® Modified Chloroprene Strip Applied Waterstop shall be manufactured from chloroprene and contain no bentonite.
2. Earth Shield® Modified Chloroprene Strip Applied Waterstop shall have a maximum compression set of 45% or under.
3. Minimum concrete cover shall be no less than 3 inches.
4. Adhere to concrete using Type NB190® Adhesive.
5. No equals or substitutions allowed.





Profile A
For concrete construction joints and pipe penetrations



Profile B
For concrete construction joints with minimal concrete clear cover

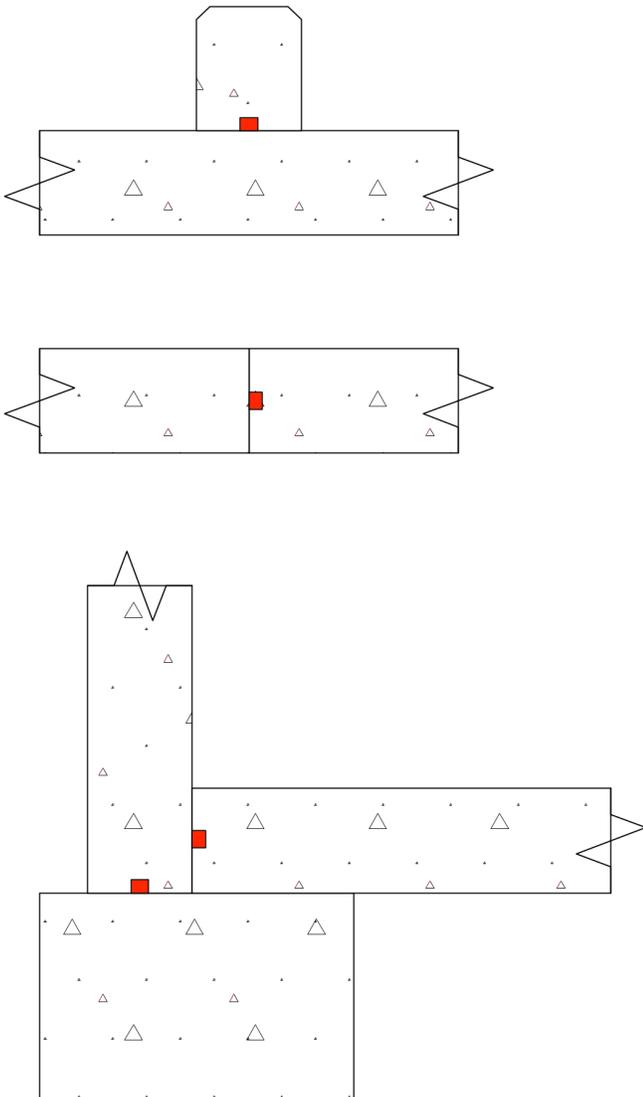
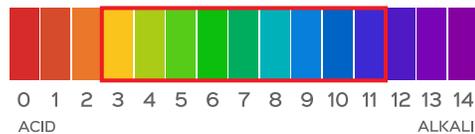


Profile C
For joint repair and special applications

Unrestrained Hydrophilic Expansion

Fresh Water	24 Hours	115%
Fresh Water	48 Hours	283%
Fresh Water	168 Hours	388%
Fresh Water	852 Hours	400%

PH SCALE



Hydrostatic Pressure Test Results

20 PSI	120 Hours	No leaks
30 PSI	120 Hours	No leaks
50 PSI	120 Hours	No leaks
100 PSI	4,320 Hours	No leaks

Property	Test Method	Required Results
Pressure Resistance		231 ft of Water Head Pressure
Shore A Hardness (5 sec.)	ASTM D2240	36.4 (77°F)
Specific Gravity	ASTM D792	1.46
Tear Strength	ISO 8067	5.56 lb/inch
Compression Set	ASTM D395	45% at 25°C (77°F)
Swelling (fresh water)		400%
Swelling (salt water)		46%
Chemical Resistance	ASTM D471	Meet or exceed specific testing standards for contained fluids as required by Owner and certified by Manufacturer

Contact the "Waterstop Experts" at 951-763-7077

Availability

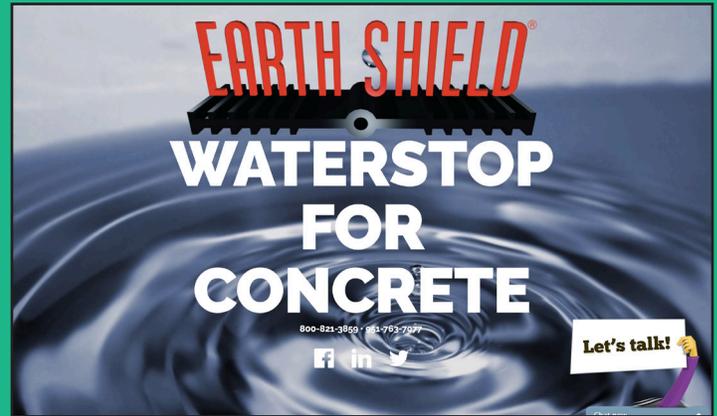
National and International Warehouses

Earth Shield® Modified Chloroprene Strip Applied Waterstop is readily available from a variety of sources:

- **Preferred Regional Stocking Partners** — *We are partners with some of the very best Concrete Accessories Distributors in the world. All our preferred partners have large stocking inventories and are factory trained to provide the utmost in on-site assistance.*
- **Distributor Sales** — *Earth Shield® can be special ordered from many distributor sales channels throughout the world.*
- **Factory Direct** — *Earth Shield® may be contacted directly for project quotation and product purchase (call 800-821-3859).*

Services

- *Project and Product Certification* — *We assist the Design Engineer and Project Owner with individual project and product certification. When you specify our waterstop, you can be assured it is the correct product for your application.*
- *Take-off Assistance* — *For the Contractor.*
- *Shop Drawings* — *3-D isometric and 2-D CAD details are available to assist the project.*
- *On-site waterstop installation assistance* — *\$1,000.00 per day*
- *Telephone and Web-based assistance* — *Always FREE*



Visit Earth Shield® on the Web at
www.jpsspecialties.com

Earth Shield® Waterstop Limited Warranty

J P Specialties, Inc. warrants to the Buyer that this product is new and will be free from defects and will perform as represented in writing subject to the two (2) following conditions: First, the application of the product and the concrete construction practices used in the application are in accordance with J P Specialties, Inc. recommendations; and, Second, the Buyer has selected the proper product for the specific application required.

Any information supplied in good faith by J P Specialties, Inc. with respect to its products is believed to be correct. J P Specialties, Inc. Makes no representation or warranties, expressed or implied, as to the accuracy or completeness of such information.

The exclusive remedies of the Buyer and the limit of the liability of J P Specialties, Inc. from any and all losses or damages resulting from the use of this product shall be either full refund of the purchase price to the Buyer of this product or the replacement of the quantity of product purchased by the Buyer at the discretion of J P Specialties, Inc.

All supplied testing data has been performed by independent testing laboratories.

Distributed by:

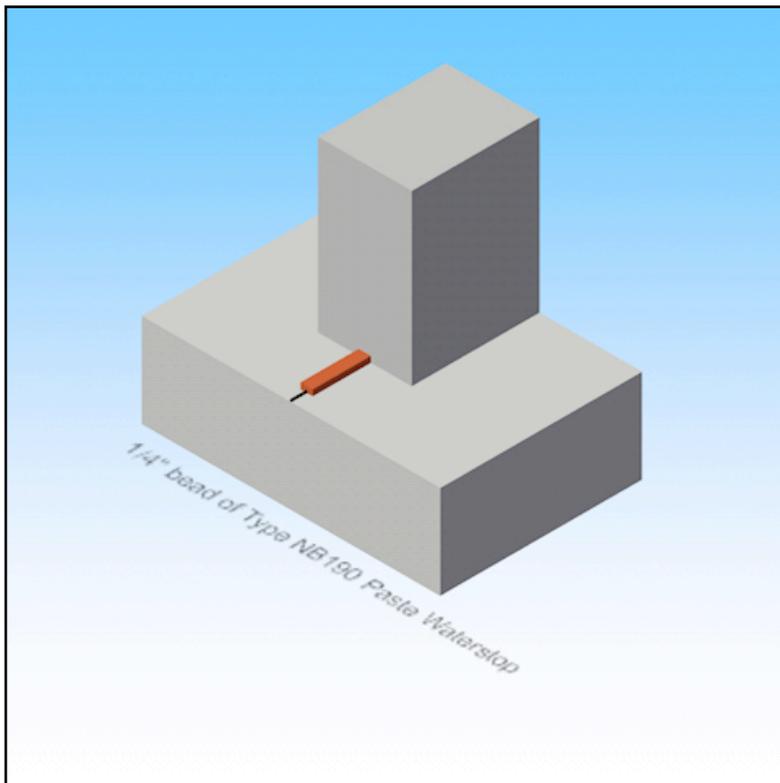
J P Specialties, Inc.
Phone: 800-821-3859; 951-763-7077
Fax: 951-386-0160

www.jpsspecialties.com



 www.facebook.com/waterstop

Earth Shield® Modified Chloroprene Strip Applied (Type NB190®) Jobsite Installation Guide



1. Prepare existing concrete to a smooth surface by grinding away any irregularities.

2. Thoroughly clean existing concrete using:

- A. Wire brush or needle gun
- B. High pressure water blast
- C. Sand blast

Remove all dust, grease and laitance.

3. Place hydrophilic waterstop strip using one of the options below:

A. *Option 1* — Apply 1/4" bead of Type NB190® Adhesive to existing concrete. Firmly press hydrophilic strip waterstop onto the bead. Ensure 3" concrete clear cover. (Note: This option applies for rough concrete.)

B. *Option 2* — Apply 1/4" bead of Type NB190® Hydrophilic Waterstop Paste to existing

concrete. Firmly press hydrophilic strip waterstop onto the bead. Ensure 3" concrete clear cover. (Note: This option applies for rough concrete.)

- C. *Option 3* — Place hydrophilic strip waterstop along concrete joint. Adhere to existing concrete with either concrete nails or screws at 12" on-center. Ensure 3" concrete clear cover.
4. When joining sections of Type NB190® cut the waterstop with sharp knife or shears and have pieces fit flush and smooth against each other.
- A. *Option 1* — Butt ends of hydrophilic strip waterstop and apply a 1/2" bead of Type NB190® Adhesive on top of and on both sides of the waterstop to seal the joint.
 - B. *Option 2* — Butt ends of hydrophilic strip waterstop and apply a 1/2" bead of Type NB190® Hydrophilic Waterstop Paste on top of and on both sides of the waterstop to seal the joint.
 - C. *Option 3* — Butt ends of hydrophilic strip waterstop and use Super Glue to bond at the waterstop face.
5. Waterstop needs to be kept dry in the timeframe between placement of waterstop and pouring of new concrete. If the Type NB190® gets wet and the swelling process starts before the placement of the concrete its effectiveness can be compromised.
6. Place concrete without displacing or disturbing the position of the waterstop. Ensure 3" concrete clear cover. If adequate space is not available contact J P Specialties, Inc.

Earth Shield® Chemical Resistant Waterstop

25811 Jefferson Avenue, Murrieta, CA 92562

951-763-7077 • FAX 951-763-7074 • www.earthshield.com • jpspec@jpspecialties.com



NB Adhesive Sealant

NBADH — Rapid Cure Elastomeric Sealant

Designed for use in new construction and for repairs that are subject to structural movement: Expansion and Control Joints, Perimeter Caulk Joints, Entry Way Steps, Precast Concrete Panel Joints, Copings, Risers and Tilt-Wall Joints, Bunker Silos, Septic Tanks and Manure Pits.

Properties

- NB Adhesive Sealant is a moisture curing, elastomeric sealant.
- Exhibits flexible, resilient rubber that adheres to a wide variety of substrates including anodized metal and coatings such as Kynar 500® PVDF.
- Joints designed to accommodate 25% total joint movement will not affect the seal or adhesive bond of NB Adhesive Sealant.
- NB Adhesive Sealant will extend and compress a total of 25% of the installation width.
- Solvent free, 100% solids, will not shrink.

- Paintable with emulsion or synthetic enamel paints within 24 hours.
- No outgassing on damp surfaces.
- Tack free skin is formed in 35 minutes (@ 75°F / 23°C)
- Typical cure takes place in 24 hours.
- NB Adhesive Sealant can be painted with emulsion or synthetic enamel paints.
- Available in 10.3-ounce cartridges.
- Color: Gray

Performance Standards

- ASTM C920, Type S, Grade NS, Class 50, Uses NT, T,M,G,A, and O.
- Federal Specification TT-S-00230-C Type II, Class A.
- Corps of Engineers CRD-C-541, Type II, Class A.
- Canadian Standards Board CAN 19, 13-M82.
- SWR Institute Validated (Sealant Waterproofing and Restoration).
- AAMA 802.3-08 Type II, AAMA 803.3-08 Type I, and AAMA 805.2-08 Group C.
- Conforms to OTC Rule for Sealants and Caulks.
- Meets requirements of California Regs: BAAQMD, CARB, and SCAQMD.
- Conforms to California Proposition 65.
- Conforms to USDA Requirements for Non-food Contact

Green Standards

- LEED 2009 for New Construction and Major Renovations: Low Emitting materials (Section 4.1) 1 Point
- NAHB Model Green Home Building Guidelines: 5 Global Impact Points
- VOC Content at 240°F: less than 19 grams/liter (including

water), ASTM D2369, EPA Method 24

Safety

Read and understand MSDS for all products. Wear rubber gloves and eye protection at all times. Use dust mask when cleaning. Keep fresh water on site at all times. Do not ingest or inhale.

First Aid

- Eye contact — Flush with water for 15 minutes and seek medical attention.
- Skin contact — Wash with soap and water, consult physician if rash occurs.
- Ingestion — Give large quantities of water, do not induce vomiting, seek medical attention.
- Inhalation of vapor — Remove to fresh air, apply oxygen if necessary.

Storage

- Keep stored in tightly sealed containers. Avoid excessive heat or flames.
- Hot environment — Store products between 70 to 75°F 48 hours prior to application.
- Cold environment — Store products at or above 80°F for 24 hours prior to application.
- Keep products in a cool area during use.
- Do not use products at temperatures above 90°F, or below 40°F (surface temperature).

Additional Information

Please contact Earth Shield Technical Support prior to use of this product regarding any additional questions.

Warranty Information

All statements, technical information and

Earth Shield® Chemical Resistant Waterstop manufactured by J P Specialties, Inc.
25811 Jefferson Avenue, Murrieta, CA 92562

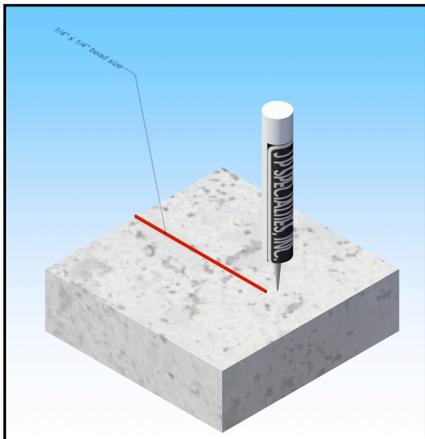
800-821-3859 • FAX 951-763-7074 • www.earthshield.com • jpspec@jpspecialties.com



Type NB190® Paste

NBPASTE — Hydrophilic Waterstop Paste

Designed for use as a waterstop in new and retrofit concrete cold joint construction. May also be used as an adhesive for Type NB190® Hydrophilic Waterstop.



Properties

- NB190® Hydrophilic Waterstop Paste is a moisture curing, hydrophilic, elastomeric sealant.
- Exhibits flexible, resilient rubber that adheres to a wide variety of substrates.

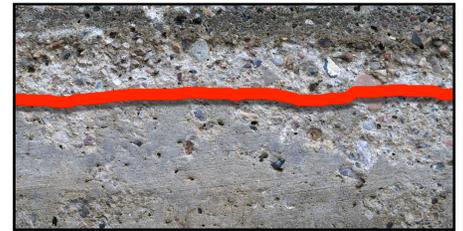
- Over 100% hydrophilic expansion in 48 hours.
- 250% hydrophilic expansion in 30 days.
- Solvent free, 100% solids, will not shrink.
- Tack free skin is formed in 60 minutes (@ 75°F / 23°C)
- Typical cure takes place in 24 hours.
- Available in 10.5-ounce cartridges.
- Color: Red

Property	Typical Value	Test Method
Cure System	Hybrid, Moisture Cure	
Gun Grade	Zero Slump	ASTM C679
Tensile Strength	159 psi	ASTM D412
Shear Strength	188 psi	ASTM D1002
Elongation	185%	ASTM D412
Shore A Hardness	35	ASTM D661
UV Stability, Accelerated Weathering	UV-A, No Change (2000 hours)	QUV Weatherometer

Property	Typical Value	Test Method
VOC Content	20.6 grams/liter	
Service Temperature	-40° F to 220° F (-40° C to 104° C)	
Application Temperature	40° F to 130° F (4° C to 55° C)	

Typical Uses

- Concrete cold joints.
- Expanded metal forms.
- Pipe or circular penetrations.
- Crack and joint repair.
- Sheet pile interlocks.
- Precast segment sealant.
- Rough or irregular concrete.



Safety

Read and understand MSDS for all products. Wear rubber gloves and eye protection at all times. Use dust mask when cleaning. Keep fresh water on site at all times. Do not ingest or inhale.

First Aid

- Eye contact — Flush with water for 15 minutes and seek medical attention.
- Skin contact — Wash with soap and water, consult physician if rash occurs.

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- Ingestion — Give large quantities of water, do not induce vomiting, seek medical attention.
- Inhalation of vapor — Remove to fresh air, apply oxygen if necessary.

Storage

- Keep stored in tightly sealed containers. Avoid excessive heat or flames.
- Hot environment — Store products between 70 to 75°F 48 hours prior to application.
- Cold environment — Store products at or above 80°F for 24 hours prior to application.
- Keep products in a cool area during use.

Additional Information

Please contact Earth Shield® Technical Support prior to use of this product regarding any additional questions.

Bead Size in Inches	Feet per Cartridge
1/4" x 1/4"	25
1/4" x 1/2"	19
1/4" x 3/4"	13
1/2" x 1/2"	13
1/2" x 3/4"	7
1/2" x 1"	3

Bead Size in Inches	Hydrostatic Resistance in PSI
1/4" x 1/4"	60
1/4" x 1/2"	65
1/4" x 3/4"	70
1/2" x 1/2"	70

Bead Size in Inches	Hydrostatic Resistance in PSI
1/2" x 3/4"	82
1/2" x 1"	88

Bead Size in Inches	Concrete Clear Cover
1/4" x 1/4"	2"
1/4" x 1/2"	3"
1/4" x 3/4"	4"
1/2" x 1/2"	4"
1/2" x 3/4"	5"
1/2" x 1"	6"

Warranty Information

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, express or implied: Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for the intended use, and user assumes all risk and liability whatsoever in connection therewith. No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.

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SECTION 03150 — WATERSTOPS FOR CONCRETE JOINTS — rev. 04/07/19

***** MasterFormat™ 2004 — Section 03 15 13 *****

This specification is available in a variety of computer formats on CD-ROM or DVD. Contact Earth Shield® Technical Sales for more information. It can also be found on the web at www.earthshield.com.

Suggested Proprietary Short Form Guide Specification

Earth Shield® Modified Rubber Strip Applied Waterstop

Waterstop indicated in drawings and specifications for non-moving construction joints shall be Earth Shield® Modified Chloroprene Strip Applied Waterstop Type NB190® Profile No. #### (Designer insert appropriate profile number here) [A, B, or C]] as manufactured by J P Specialties, Inc.; Murrieta, CA 92562; Phone 951-763-7077

1. Waterstop shall be manufactured from chloroprene and contain no bentonite.
2. Waterstop shall have a maximum compression set of 45% or under.
3. Minimum concrete cover shall be no less than 3 inches.
4. Adhere to concrete using Type NB190® Adhesive.
5. No equals or substitutions allowed.

Suggested Long Form Guide Specification

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Provision of waterstops embedded in concrete and spanning control and construction joints to create a continuous diaphragm to prevent fluid migration.

1.02 REFERENCES

- A. American Society for Testing Materials (ASTM)
- B. International Standards Organization (ISO)

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Store waterstops indoors or under tarps to protect from oil, dirt, sunlight, and premature exposure to water.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Provide Earth Shield® Type NB190® Modified Chloroprene Strip Applied Waterstop as manufactured by **JP SPECIALTIES, INC. — MURRIETA, CA, USA 92562 — PHONE 800-821-3859; 951-763-7077; FAX 951-763-7074; WEB WWW.EARTHSHIELD.COM; E-MAIL DAVIDP@EARTHSHIELD.COM**
- B. Profile number (fill in profile style number).
- C. The waterstop shall be chloroprene hydrophilic rubber.
- D. Performance Requirements as follows:

SECTION 03150 — WATERSTOPS FOR CONCRETE JOINTS — rev. 04/25/18

***** MasterFormat™ 2004 — Section 03 15 13 *****

Property	Test Method	Required Limits
Pressure Resistance		231 ft of Water Head Pressure
Hardness (Shore A)	ASTM D2240	36.4
Specific Gravity	ASTM D792	1.46
Tear Resistance	ISO 8067	5.56 lb/inch
Compression Set	ASTM D395	45% at 77°F
Swelling (fresh water)		400% in 36 Days
Swelling (salt water)		46% in 36 Days
Chemical Resistance	ASTM D471	Meet or exceed specific testing standards for contained fluids as required by Owner and certified by Manufacturer

2.02 ACCESSORIES

- A. Provide Type NB190® Adhesive to secure waterstop to smooth, dry concrete.
- B. Provide cyanoacrylate adhesive (i.e. Super Glue) for all waterstop splices.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Cut coil ends square with shears or sharp blade to fit splices together without overlaps.
- B. Splices shall be sealed using cyanoacrylate adhesive (super glue).
- C. Position waterstop on joint as indicated on Drawings with a minimum of 3 inches (76 mm) concrete coverage on all sides.
- D. Press strip waterstop firmly and continuously in place over Type NB190® Adhesive on first concrete pour.
- E. When necessary on vertical, damp, or green concrete, fasten waterstop strip mechanically starting 1 inch (25 mm) from each coil end and proceeding 10 inches (250 mm) on center along length.
- F. Notify Engineer/Architect 24 hours prior to placement of concrete at waterstops.
- G. Immediately prior to placing second pour, inspect waterstop for damage, discontinuity, premature swelling, and debris contamination. Replace damaged waterstop. Remove unacceptable waterstop from site and dispose of defective material in accordance with local regulations.
- H. Remove the separation paper from the strip waterstop immediately prior to second pour.
- I. Place concrete without displacing waterstop from position.

SECTION 03150 — WATERSTOPS FOR CONCRETE JOINTS — rev. 04/07/19

******* MasterFormat™ 2004 — Section 03 15 13 *******

- J. Thoroughly and systematically vibrate concrete around waterstop to obtain impervious, void-free concrete in vicinity of joint and to maximize intimate contact between concrete and waterstop. Do not allow vibrator to contact the strip waterstop.

END OF SECTION

All information is presented in good faith and the results are believed to be accurate. All testing was done independently of Earth Shield® and J P Specialties, Inc.; therefore, neither Earth Shield® nor J P Specialties, Inc. makes any guarantee as to the testing data accuracy or the results obtained.



Safety Data Sheet

Section 1. Identification	
GHS product identifier	: Type NB190®
Other means of identification	: Not Available
<u>Relevant identified uses of the substance or mixture and uses advised against</u>	
Not available	
Supplier's details	: J P Specialties, Inc., Inc. 25811 Jefferson Avenue Murrieta, CA 92562 Tel.: 951-763-7077 Toll-free: 800-821-3859 Fax: 951-763-7074 Email: jpspec@jpspecialties.com Website URL: www.jpspecialties.com
Emergency telephone number (with hours of operation)	: 951-763-7077 or 800-821-3859 (7 am to 3:30pm Pacific)
Section 2. Hazards Identification	
OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	: Not Classified
<u>GHS label elements</u>	
Signal word	: No signal word
Hazard statements	: No known significant effects or critical hazards.
<u>Precautionary statements</u>	
General	: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	: Not applicable



Safety Data Sheet

Response	: Not applicable
Storage	: Not applicable
Disposal	: Not applicable
Hazards not otherwise classified	: None known

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture	
Other means of identification	: Not available	
<u>CAS number/other identifiers</u>		
CAS number	: Not applicable	
Product code	: Not available	
Ingredient name	%	CAS number
Distillates (petroleum), solvent-dewaxed heavy paraffinic	≥ 10 - ≥ 25	64742-65-0
Butene, homopolymer (products derived from either/or But-1-ene/ But -2-ene)	≥ 1 - ≥ 3	9003-29-6
Crystalline silica, Respirable powder	≥ 1 - ≥ 3	14808-60-7
Rosin	≥ 0.3 - ≥ 1	8050-09-7
2,6-di-tert-Butyl-p-cresol	≥ 0.3	128-37-0
Any concentration shown as a range is to protect confidentiality or is due to batch variation.		
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.		
Occupational exposure limits, if available, are listed in Section 8.		

Section 4. First aid measures

<u>Description of necessary first aid measures</u>	
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.



Safety Data Sheet

Skin contact	: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
Ingestion	: Wash mouth out with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<u>Most important symptoms/effects, acute and delayed</u>	
Potential acute health effects	
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/symptoms	
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
<u>Indication of immediate medical attention and special treatment needed, if necessary</u>	
Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: None known
Protection of first-aiders	: None known
Section 5. Firefighting measures	
<u>Extinguishing media</u>	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.



Safety Data Sheet

Unsuitable extinguishing media	: None known
Specific hazards arising from the chemical	: No specific fire or explosion hazard.
Hazardous thermal decomposition products	: Decomposition materials may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
Special protective actions for firefighters	: No special measures are required.
Special protective equipment for firefighters	: Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Section 6. Accidental release measures	
<u>Personal precautions, protective equipment and emergency procedures</u>	
For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Put on appropriate personal protective equipment.
For emergency responders	: Take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel."
Environmental precautions	: Not applicable.
<u>Methods and materials for contaminant and cleaning up</u>	
Spill	: Not applicable.
Section 7. Handling and storage	
<u>Precautions for safe handling</u>	
Protective measures	: Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and faces before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating area.



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Conditions for safe storage, including any incompatibilities	
Means of safe 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.
Storage incompatibilities	: None known
Section 8. Exposure Controls / Personal Protection	
Occupational exposure limits	
Ingredient name	Exposure limits
Distillates (petroleum), solvent-dewaxed heavy paraffinic	ACGIH TLV (United States, 3/2015). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction NIOSH REL (United States, 10/2013). TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10 mg/m ³ 15 minutes. Form: Mist OSHA PEL (United States, 2/2013). TWA: 5 mg/m ³ 8 hours
Butene, homopolymer (products derived from either/or But-1-ene/ But-2-ene)	None
Crystalline Silica, Respirable powder	OSHA PEL Z3 (United States, 2013) TWA: 250 MPPCF /(%SiO ₂ +5) 8 hours. Form: Respirable TWA: 10 MG/M ³ / (%SiO ₂ +2) 8 hours. Form: Respirable NIOSH REL (United States, 10/2013). TWA: 0.05 mg/m ³ 10 hours. Form: Respirable dust ACGIH TLV (United States, 3/2015). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable fraction
Rosin	None
2,6-di-tert-Butyl-p-cresol	NIOSH REL (United States, 10/2013). TWA: 10 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2015). TWA: 2 mg/m ³ 8 hours. Form: Inhalable fraction and vapor
Appropriate engineering controls	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	: Not applicable.
Individual protection measures	



Safety Data Sheet

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the work period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
Eye/face protection	: 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, gasses or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Hand protection	: 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.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risk involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures 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 protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and Chemical Properties

Appearance	
Physical state	: Solid
Color	: Red
Odor	: Unique odor. (slight)
Odor threshold	: Not available



Safety Data Sheet

pH	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point / range	: Not available
Flash point	: Not available
Burning time	: Not available
Burning rate	: Not available
Evaporation rate	: Not available
Flammability (solid, gas)	: Not available
Lower and upper explosive (flammable) limits	: Not available
Vapor pressure	: Not available
Vapor density	: Not available
Relative density	: 1.25
Solubility	: Not available
Partition coefficient n-octanol/water	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Viscosity	: Not available

Section 10. Stability and Reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: Not available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

Information on toxicological effects						
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Safety Data Sheet

Acute toxicity						
Product/ingredient name	Result	Species	Dose	Exposure		
Distillates (petroleum), solvent-dewaxed heavy paraffinic	LD50 Dermal LD50 Oral	Rabbit Rat	>5000 mg/kg >5000 mg/kg	- -		
Rosin	LD50 Oral	Rat	>5000 mg/kg	-		
2,6-di-tert-Butyl-p-cresol	LD50 Oral	Rat	7600 mg/kg 890 mg/kg	-		
Irritation/Corrosion						
Product/ingredient name	Result	Species	Score	Exposure	Observation	
2,6-di-tert-Butyl-p-cresol	Eyes- Moderate irritation Skin- Moderate irritation	Rabbit Rabbit	- -	24 hours 100 mg 48 hours 500mg	- -	
Carcinogenicity						
Classification						
Product/ingredient name	OSHA	IARC	NTP	ACG IH	EPA	NIO SH
Talc, not containing asbestiform fibres	-	3	-	A4	-	-
Distillates (petroleum), solvent-dewaxed heavy paraffinic	-	-	-	A4	-	-
Crystalline silica, Respirable powder	-	1	Known to be a human carcinogen	A2	-	+
Reproductive toxicity						
There is no data available						
Specific target organ toxicity (single exposure)						
There is no data available						



Safety Data Sheet

Specific target organ toxicity (repeated exposure)						
There is no data available						
Aspiration hazard						
Name	Result					
Butene, homopolymer (products derived from either/ or But-1-ene/But-2-ene	ASPIRATION HAZARD-Category 1					
Information on the likely routes of exposure	: Dermal contact. Eye contact. Inhalation Ingestion.					
Potential acute health effects						
Eye contact	: No known significant effects or critical hazards.					
Inhalation	: No known significant effects or critical hazards.					
Skin contact	: No known significant effects or critical hazards.					
Ingestion	: No known significant effects or critical hazards.					
Symptoms related to the physical, chemical and toxicological characteristics						
Eye contact	: No known significant effects or critical hazards.					



Safety Data Sheet

Inhalation	: No known significant effects or critical hazards.					
Skin contact	: No known significant effects or critical hazards.					
Ingestion	: No known significant effects or critical hazards.					
<u>Delayed and immediate effects and also chronic effects from short and long term exposure</u>						
<u>Short term exposure</u>						
Potential immediate effects	: No known significant effects or critical hazards.					
Potential delayed effects	: No known significant effects or critical hazards.					
<u>Long term exposure</u>						
Potential immediate effects	: No known significant effects or critical hazards.					
Potential delayed effects	: No known significant effects or critical hazards.					
<u>Potential chronic health effects</u>						
General	: No known significant effects or critical hazards.					



Safety Data Sheet

Carcinogenicity	: No known significant effects or critical hazards.					
Mutagenicity	: No known significant effects or critical hazards.					
Teratogenicity	: No known significant effects or critical hazards.					
Developmental effects	: No known significant effects or critical hazards.					
Fertility effects	: No known significant effects or critical hazards.					

Section 12. Ecological Information

Toxicity

Product/ingredient name	Result	Species	Exposure		
2,6-di-tert-Butyl-p-cresol	Acute EC50 1440 µg/L Fresh water	Daphnia-Daphnia pulex-Neonate	48 hours		

Persistence and degradability

There is no data available

Bioaccumulative potential

Product/Ingredient name	LogP _{ow}	BCF	Potential		



Safety Data Sheet

	Butene, homopolymer (products derived from either/or But-1-ene/But-2-ene) Rosin 2,6-di-tert-Butyl-p-cresol	7.6 to 7.8 1.9 to 7.7 5.1	314 to 1882 - 330 to 1800	High high high	
There is no data available					
Mobility in soil					
Soil/water partition coefficient (K_{oc})	: Not available				
Other adverse effects	: No known significant effects or critical hazards.				

Section 13. Disposal Considerations

Disposal methods	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
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Section 14. Transport Information

Not regulated/No Hazards	



Safety Data Sheet

Section 15. Regulatory Information						
Clean Air Act Section 602 Class I Substances						
Clean Air Act Section 602 Class II Substances						
DEA List I Chemicals (Precursor Chemicals)						
DEA List II Chemicals (Essential Chemicals)						
SARA 302/304						
<u>Composition/information on ingredients</u>						
No products were found.						
SARA 304 RQ	: Not applicable					
SARA 311/312						
Classification	: Not applicable					
<u>Composition/information on ingredients</u>						
Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Distillates (petroleum), solvent-dewaxed heavy paraffinic	≥10-≥25	No	No	No	No	Yes
Butene, homopolymer (products derived from either /or But-1-ene/But-2-ene)	≥1-≥3	No	No	No	Yes	No
Crystalline silica, Respirable powder	≥1-≥3	No	No	No	No	Yes
Rosin	≥0.3-≥1	No	No	No	Yes	No
2,6-di-tert-Butyl-p-cresol	≥0.3	No	No	No	Yes	No
SARA 313						
There is no data available.						
State regulations						



Safety Data Sheet

J P SPECIALTIES, INC.

Crystalline silica, Respirable powder	Yes	No	No	No	
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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Safety Data Sheet

Section 1. Identification	
GHS product identifier	: Type NB190® Adhesive
Other means of identification	: Moisture Cure Elastomeric Adhesive
Relevant identified uses of the substance or mixture and uses advised against	
Not available	
Supplier's details	: J P Specialties, Inc., Inc. 25811 Jefferson Avenue Murrieta, CA 92562 Tel.: 951-763-7077 Toll-free: 800-821-3859 Fax: 951-763-7074 Email: jpspec@jpspecialties.com Website URL: www.jpspecialties.com
Emergency telephone number (with hours of operation)	: 951-763-7077 or 800-821-3859 (7 am to 3:30pm Pacific)

Section 2. Hazards Identification	
OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	: Irritant - Category 2
GHS label elements	
Hazard pictogram	
Signal word	: WARNING
Hazard statements	: Causes skin and serious eye irritation. May cause allergic skin reaction.
Precautionary statements	
General	: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.



Safety Data Sheet

Prevention	: Avoid release to the environment. Wear protective gloves/protective clothing/eye protection.
Response	: IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take off contaminated clothing and wash it before reuse.
Storage	: Not applicable
Disposal	: Not applicable
Hazards not otherwise classified	: Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3. Composition/ information on ingredients		
Substance/mixture	: Mixture	
Other means of identification	: Not available	
<u>CAS number/other identifiers</u>		
CAS number	: Not applicable	
Product code	: Not available	
Ingredient name	%	CAS number
Amino silane	1-5	1760-24-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation. 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.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures	
<u>Description of necessary first aid measures</u>	
Eye contact	: Flush with large amounts of water for at least 15 minutes. Consult a physician if ill effects or irritation occurs.
Inhalation	: An unlikely route of entry. Remove to fresh air. Consult a physician.
Skin contact	: Clean product from affected area with Ethyl alcohol, then wash with soap and water.
Ingestion	: An unlikely route of entry. Consult a physician.



Safety Data Sheet

<u>Most important symptoms/effects, acute and delayed</u>	
<u>Potential acute health effects</u>	
Eye contact	: Direct contact can cause severe irritation.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Direct contact can cause slight irritation.
Ingestion	: May be harmful if ingested. Not a likely route of entry.
<u>Over-exposure signs/symptoms</u>	
Eye contact	: Repeated or prolonged direct contact to eyes may cause chemical burns.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Repeated or prolonged direct contact with skin may cause dermatitis.
Ingestion	: May be harmful if ingested. Call a physician.

<u>Indication of immediate medical attention and special treatment needed, if necessary</u>	
Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	
Protection of first-aiders	

Section 5. Firefighting measures	
<u>Extinguishing media</u>	
Suitable extinguishing media	: Water, carbon dioxide, dry chemical, foam.
Unsuitable extinguishing media	: None known
Specific hazards arising from the chemical	: No specific fire or explosion hazard.
Hazardous thermal decomposition products	: Decomposition materials may include the following materials: carbon dioxide; carbon monoxide; sulfur oxides; hydrogen sulfide
Special protective actions for firefighters	: No special measures are required.



Safety Data Sheet

Special protective equipment for firefighters	: Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
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Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Put on appropriate personal protective equipment.
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For emergency responders	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel."
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Environmental precautions	: None require if used according to recommended conditions.
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Methods and materials for contaminant and cleaning up

Spill	: Collect spill with absorbent material such as cardboard; allow to cure and place into container approved for waste disposal.
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Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Avoid eye, skin, and clothing contact.
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Conditions for safe storage, including any incompatibilities	: Store in a cool dry place.
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Section 8. Exposure Controls / Personal Protection

Control parameters

Appropriate engineering controls	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
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Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
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Safety Data Sheet

Individual protection measures	
Eye/face protection	: Wear safety glasses or goggles to avoid eye contact.
Hand protection	: Wear impervious gloves such as vinyl to minimize contact with skin.
Respiratory protection	: No specific controls are needed.
Section 9. Physical and Chemical Properties	
Appearance	
Physical state	: Paste
Color	: Grey
Odor	: Mild mint scent
Odor threshold	: Not available
pH	: Not available
Melting point	: Not available
Boiling point	: Not available
Flash point	: Not available
Burning time	: Not available
Burning rate	: Not available
Evaporation rate	: Not available
Flammability (solid, gas)	: Not available
Lower and upper explosive (flammable) limits	: Not available
Vapor pressure	: <1
Vapor density	: (AIR=1) >1
Relative density	: Not available
Solubility	: Not water soluble
Solubility in water	: Insoluble
Partition coefficient n-octanol/water	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
SADT	: Not available
Viscosity	: 800,000 cps
% Volatile	: 2.23%



Safety Data Sheet

VOC	: 21.64
Density	: 8.1
Specific gravity	: 0.97
Section 10. Stability and Reactivity	
Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials. Non-reactive or compatible with the following materials: reducing materials, combustible materials, organic materials, metals, acids, alkalis, and moisture.
Hazardous decomposition products	: Thermal decomposition may produce toxic fumes of CO and CO ₂ .

Section 11. Toxicological Information				
Information on toxicological effects				
Acute toxicity				
Product/ingredient name	Result	Species	Dose	Exposure
Amino silane	LD50 Oral LD50 Dermal		>2000 mg/kg >2000 mg/kg	



Safety Data Sheet

<u>Sensitization</u>	
Skin	: Slight irritation
Respiratory	: There is no data available
<u>Mutagenicity</u>	
There is no data available	
<u>Carcinogenicity</u>	
There is no data available	
<u>Reproductive toxicity</u>	
There is no data available	
<u>Teratogenicity</u>	
There is no data available	
<u>Specific target organ toxicity (single exposure)</u>	
There is no data available	
<u>Specific target organ toxicity (repeated exposure)</u>	
There is no data available	
<u>Aspiration hazard</u>	
There is no data available	
Information on the likely routes of exposure	: Not available
<u>Potential acute health effects</u>	
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
<u>Symptoms related to the physical, chemical and toxicological characteristics</u>	
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.



Safety Data Sheet

Ingestion	: No known significant effects or critical hazards.
<u>Delayed and immediate effects and also chronic effects from short and long term exposure</u>	
<u>Short term exposure</u>	
Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.
<u>Long term exposure</u>	
Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.
<u>Potential chronic health effects</u>	
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Section 12. Ecological Information	
<u>Toxicity</u>	
There is no data available	
<u>Persistence and degradability</u>	
There is no data available	
<u>Mobility in soil</u>	
Soil/water partition coefficient (K_{oc})	: Not available
Other adverse effects	: No known significant effects or critical hazards.
Section 13. Disposal Considerations	



Safety Data Sheet

Disposal methods	: If this product becomes waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. This product becomes a firm synthetic rubber when cured. Please allow it to cure before disposal.			
Section 14. Transport Information				
	DOT Classification	IMDG	IATA	
UN number	Not regulated	Not regulated	Not regulated	
UN proper shipping name	-	-	-	
Transport hazard class(es)	-	-	-	
Packing group	-	-	-	
Environmental hazards	No.	No.	No.	
Additional information	-	-	-	
Special precautions for user	: Not available			
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	: Not available			
Section 15. Regulatory Information				
U.S. Federal regulations	: TSCA 8(a) CDR Exempt/Partial exemption: Not determined United States inventory (TSCA 8b): All components are listed or exempt.			
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: 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			



Safety Data Sheet

DEA List II Chemicals (Essential Chemicals)	: Not listed					
SARA 302/304						
Composition/information on ingredients						
Name	%	EH S	SARA 302 TPQ (lbs)	SARA 304 RQ (gallons)	(lbs)	(gallons)
No products were found						
SARA 304 RQ	: Not applicable					
SARA 311/312						
Classification	: Not applicable					
SARA 313						
	Product name	CAS number	%			
Form R – Reporting requirements						
Supplier notification						
SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.						
State regulations						
Massachusetts	: Not available					
New York	: Not available					
New Jersey	: Not available					
Pennsylvania	: Not available					
California Prop. 65						



Safety Data Sheet

<p>This product does not contain any chemicals known by the State of California to cause cancer. This product does not contain any chemicals known by the State of California to cause reproductive harm.</p>					
Ingredient name	Cancer	Reproducible	No significant risk level	Maximum acceptable dosage level	
International regulations					
WHMIS Classification : D2B					
International lists	<p>: Australia inventory (AICS): Not determined. China inventory (IECSC): Not determined. Japan inventory: Not determined. Korea inventory: Not determined. Malaysia Inventory (EHS Register): Not determined. New Zealand Inventory of Chemicals (NZIoC): Not determined. Philippines inventory (PICCS): Not determined. Taiwan inventory (CSNN): Not determined.</p>				
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				
Section 16. Other Information					
History					



J P SPECIALTIES, INC.

Safety Data Sheet

Date of issue mm/dd/yyyy	: 09/01/2015
Version	: 2
Revised sections	: 2, 4, 9, 11
Prepared by	: J P Specialties, Inc.
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

Notice to reader

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SAFETY DATA SHEET

Type NB190® Hydrophilic Waterstop Paste

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name Type NB190® Hydrophilic Waterstop Paste

Recommended use of the chemical and restrictions on use

Application Moisture-Curing Elastomeric Hydrophilic Sealant.

Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier J P Specialties, Inc.
 25811 Jefferson Avenue
 Murrieta, CA 92562
 US
 Tel.: 951-763-7077
 Fax: 951-763-7074
 Email: jpspec@jpspecialties.com

Emergency telephone number Tel.: 951-763-7077 (7 am to 3:30 pm PST)

Emergency telephone number Toll-free: 800-821-3859 (7 am to 3:30 pm PST)

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Physical hazards Not Classified

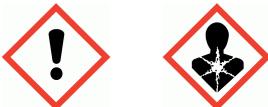
Health hazards Skin Sens. 1 - H317 Repr. 1B - H360FD

Environmental hazards Aquatic Acute 3 - H402 Aquatic Chronic 3 - H412

Human health May cause skin sensitization or allergic reactions in sensitive individuals.

Label elements

Hazard symbols



Signal word Danger

Hazard statements H317 May cause an allergic skin reaction.
 H360FD May damage fertility. May damage the unborn child.
 H412 Harmful to aquatic life with long lasting effects.

Type NB190® Hydrophilic Waterstop Paste

Precautionary statements	<p>P201 Obtain special instructions before use.</p> <p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P261 Avoid breathing vapor/ spray.</p> <p>P272 Contaminated work clothing must not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 If on skin: Wash with plenty of water.</p> <p>P308+P313 If exposed or concerned: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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Contains	N-(3-(Trimethoxysilyl)propyl)ethylenediamine, Dibutyltin dilaurate, Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate
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Other hazards

This product contains substances classified as PBT.

3. Composition/information on ingredients

Mixtures

Calcium carbonate CAS number: 471-34-1	10 - <25%
Limestone CAS number: 1317-65-3 Substance with National workplace exposure limits.	10 - <25%
Trimethoxyvinylsilane CAS number: 2768-02-7	1 - <2.5%
N-(3-(Trimethoxysilyl)propyl)ethylenediamine CAS number: 1760-24-3	0.5 - <1%
Dibutyltin dilaurate CAS number: 77-58-7	0.025 - <0.25%
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate CAS number: 41556-26-7	0.025 - <0.25%
Calcium Oxide CAS number: 1305-78-8	0.025 - <0.25%
Quartz (SiO₂) CAS number: 14808-60-7	0.025 - <0.25%

Type NB190® Hydrophilic Waterstop Paste

Quartz (SiO₂)	0.025 - <0.25%
CAS number: 14808-60-7	

Ingredient notes The exact percentage/concentration is withheld as a trade secret in accordance with 29 CFR 1910.1200.

4. First-aid measures

Description of first aid measures

General information	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Ingestion	Rinse mouth thoroughly with water. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Skin Contact	Remove contaminated clothing. Rinse with water. In the event of any sensitization symptoms developing, ensure further exposure is avoided.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Prolonged inhalation of high concentrations may damage respiratory system.
Ingestion	Gastrointestinal symptoms, including upset stomach.
Skin contact	May cause skin sensitization or allergic reactions in sensitive individuals.
Eye contact	May cause temporary eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up.

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Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.
<u>Advice for firefighters</u>	
Protective actions during firefighting	Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Do not touch or walk into spilled material. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Ensure procedures and training for emergency decontamination and disposal are in place. Wash thoroughly after dealing with a spillage.
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Environmental precautions

Environmental precautions	Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.
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Methods and material for containment and cleaning up

Methods for cleaning up	Wear protective clothing as described in Section 8 of this safety data sheet. Do not empty into drains. Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.
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Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.
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7. Handling and storage

Precautions for safe handling

Usage precautions	Read and follow manufacturer's recommendations. Keep away from food, drink and animal feeding stuffs. Wear protective clothing as described in Section 8 of this safety data sheet. Do not handle until all safety precautions have been read and understood. Handle all packages and containers carefully to minimize spills. Do not handle broken packages without protective equipment. Keep container tightly sealed when not in use. Avoid discharge to the aquatic environment.
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Advice on general occupational hygiene	Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.
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Conditions for safe storage, including any incompatibilities

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Storage precautions	Store away from incompatible materials (see Section 10). Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep containers upright. Protect containers from damage. Utilize retaining walls to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.
Storage class	Miscellaneous hazardous material storage.
<u>Specific end uses(s)</u>	
Specific end use(s)	The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Calcium carbonate

Long-term exposure limit (8-hour TWA): OSHA 5 mg/m³ respirable fraction

Long-term exposure limit (8-hour TWA): OSHA 15 mg/m³ total dust

Limestone

Long-term exposure limit (8-hour TWA): OSHA 5 mg/m³ respirable fraction

Long-term exposure limit (8-hour TWA): OSHA 15 mg/m³ total dust

Calcium Oxide

Long-term exposure limit (8-hour TWA): ACGIH 2 mg/m³

Long-term exposure limit (8-hour TWA): OSHA 5 mg/m³

Quartz (SiO₂)

Long-term exposure limit (8-hour TWA): OSHA 0.05 mg/m³ respirable dust

Long-term exposure limit (8-hour TWA): ACGIH 0.025 mg/m³ respirable fraction

A2

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

A2 = Suspected Human Carcinogen.

Amorphous silica (CAS: 67762-90-7)

Immediate danger to life and health 3000 mg/m³

Calcium Oxide (CAS: 1305-78-8)

Immediate danger to life and health 25 mg/m³

Quartz (SiO₂) (CAS: 14808-60-7)

Immediate danger to life and health 25 mg/m³ 50 mg/m³

Exposure controls

Protective equipment



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Appropriate engineering controls	Provide adequate ventilation. Personal, workplace environment 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. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.
Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
Hygiene measures	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly.
Environmental exposure controls	Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to 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.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Viscous liquid.
Color	Various colors.
Odor	Mild.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	Not available.

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Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.36-1.40
Bulk density	11.33-11.67 lb/Ga
Solubility(ies)	Not known.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	775,000-1,275,000 cP @ 20°C
Explosive properties	Not considered to be explosive.
Oxidizing properties	Does not meet the criteria for classification as oxidizing.
Other information	No information required.

10. Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	This product hydrolyzes when it comes into contact with atmospheric moisture to form methanol.
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

ATE inhalation (vapours mg/l) 1,131.31

Skin corrosion/irritation

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Animal data	Based on available data the classification criteria are not met.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Based on available data the classification criteria are not met.
<u>Respiratory sensitization</u>	
Respiratory sensitization	Based on available data the classification criteria are not met.
<u>Skin sensitization</u>	
Skin sensitization	The product contains a sensitizing substance. May cause sensitisation by skin contact.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	
Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	Contains a substance/a group of substances which may cause cancer. IARC Group 1 Carcinogenic to humans.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
<u>Aspiration hazard</u>	
Aspiration hazard	Based on available data the classification criteria are not met.
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Prolonged inhalation of high concentrations may damage respiratory system.
Ingestion	Gastrointestinal symptoms, including upset stomach.
Skin Contact	May cause skin sensitization or allergic reactions in sensitive individuals.
Eye contact	May cause temporary eye irritation.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target Organs	No specific target organs known.
Medical considerations	Allergies.

12. Ecological information

Toxicity	Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.
<u>Persistence and degradability</u>	
Persistence and degradability	The degradability of the product is not known.
<u>Bioaccumulative potential</u>	

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Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient Not available.

Mobility in soil

Mobility No data available.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information

The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods

Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.

14. Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN Number

UN No. (International) Not applicable.

UN No. (DOT) Not applicable.

UN proper shipping name

Proper shipping name (International) Not applicable.

Proper shipping name (DOT) Not applicable.

Transport hazard class(es)

Transport Labels (International) No transport warning sign required.

DOT transport labels

No transport warning sign required.

Packing group

Packing group (International) Not applicable.

DOT packing group Not applicable.

Environmental hazards

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Environmentally Hazardous Substance

No.

Special precautions for user

Not applicable.

DOT reportable quantity Not applicable.

DOT TIH Zone Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

The following ingredients are listed or exempt:

Amorphous silica

1.0 %

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are required to be listed.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

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California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

Amorphous silica

Calcium Oxide

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

Amorphous silica

Calcium Oxide

Quartz (SiO₂)

Limestone

Quartz (SiO₂)

Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

Calcium Oxide

Quartz (SiO₂)

Limestone

Quartz (SiO₂)

Minnesota "Right To Know" List

The following ingredients are listed or exempt:

Amorphous silica

Calcium Oxide

Quartz (SiO₂)

Limestone

Quartz (SiO₂)

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

Calcium Oxide

Dipotassium oxide

Quartz (SiO₂)

Limestone

Quartz (SiO₂)

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

Amorphous silica

Calcium Oxide

Quartz (SiO₂)

Limestone

Quartz (SiO₂)

Inventories

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US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

16. Other information

Classification abbreviations and acronyms	Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Training advice	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
Revision comments	This is the first issue.
Revision date	9/19/2018
SDS No.	8023
Hazard statements in full	H317 May cause an allergic skin reaction. H360FD May damage fertility. May damage the unborn child. H402 Harmful to aquatic life. H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.