MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product name	**916 Product Series**
Product name(s) covered	See Section 16 for Product Names Covered.
MSDS name	916 Product Series - Various Colors
CAS number	Mixture
Generic description	Sealant
Manufacturer	Bostik, Inc. 211 Boston Street Middleton, MA 01949 USA
24 hour emergency assistance	Telephone: 1-800-227-0332
General assistance	Telephone: 1-978-777-0100
MSDS assistance	Telephone: 1-414-607-1347

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component(s)	CAS #	Percent
Xylenes (o-, m-, p- isomers)	1330-20-7	1 - 5
Ethyl benzene	100-41-4	0.5 - 1.5
Methylene Diphenyl Isocyanate (MDI)	101-68-8	0.1 - 1

3. HAZARDS IDENTIFICATION

Emergency overview

This product is irritating to the eyes and skin. Thermal decomposition/burning may produce toxic gases and fumes. Closed containers may rupture when exposed to high temperatures, or when the product has been contaminated with water.

Avoid breathing hot mists and vapors. This product contains a respiratory and skin sensitizer. Causes respiratory tract irritation and may cause allergic respiratory reaction. May cause permanent respiratory damage. Product vapors are potentially irritating to skin. May cause allergic skin reaction and dermatitis.

Potential health effects

Skin

Skin contact may cause irritation. Isocyanates may react with skin protein and moisture to cause itching, reddening, swelling, scaling or blistering. Individuals previously sensitized to this material may experience these symptoms from exposure to very small amounts of liquid or vapor.

Eyes

This product may cause irritation to the eyes. May cause temporary corneal injury.

Inhalation

This product may cause irritation to the respiratory system. Single large does, and/or repeated exposures, may lead to sensitization to diisocyanates or polyisocyanates (asthma or asthma-like symptoms), causing an individual to experience adverse effects at exposure levels well below exposure limits or guidelines. Symptoms may include chest tightness, wheezing, shortness of breath, coughing or asthmatic attack, and may be delayed up to several hours. Extreme asthmatic reactions can be life threatening. Once sensitized, an individual may experience adverse symptoms upon exposure to dust, cold air or other irritants. Sensitization can last several months, years or be permanent in some cases.

Ingestion

May cause irritation and corrosive action in the mouth, throat and digestive tract. This product can cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

Target organs

The lungs and skin may be targeted and damaged by components of this product.

Signs and symptoms of overexposure

Signs and symptoms of overexposure to this product include headache, irritation of upper respiratory tract, asthmatic symptoms, chest tightness, breathing difficulty, coughing, sore throat, eye irritation, skin irritation and/or diarrhea.

Hazard statements

This product contains Methylene Diphenyl Isocyanate (MDI) which is a potential skin sensitizer and has been shown to alter cells in certain experiments. Although inconclusive, these cellular changes are thought to indicate potential carcinogenicity. Risk to your health depends on duration and concentration of exposure.

4. FIRST AID MEASURES

First aid

Skin	Remove contaminated clothing to prevent further skin exposure and dispose of properly. In situations involving considerable skin contact, place the contaminated person in a deluge shower for at least 15 minutes. For minor exposures, wash thoroughly with soap and clean water. Get medical attention if irritation persists.
Eye	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention or advice.
Inhalation	Remove to fresh air. Get medical attention immediately for a large dose exposure or if cough or other symptoms develop. Administer oxygen or artificial respiration as needed.
Ingestion	If ingested, get immediate medical attention. Do not induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Notes to physician	Treat symptomatically and supportively. Contact Bostik to determine whether any additional information is available. Eyes: Stain for evidence of corneal injury. If cornea is burned, apply antibiotic/steroid preparation as needed. Skin: This product contains a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. Ingestion: Treat symptomatically. Inhalation: This material contains a known pulmonary sensitizer. Any individual experiencing dermal or pulmonary sensitization should be removed from exposure to any diisocyanate. May aggravate existing heart conditions, particularly those with abnormal heart rhythms. If overexposure to the solvents in this product is suspected, testing should include nervous system and brain effects including recent memory, mood, concentration, headaches and altered sleep patterns. Liver and kidney function should be evaluated. This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately.

5. FIRE FIGHTING MEASURES

Hazardous combustion products	Additional decomposition products include oxides of nitrogen, amines, hydrogen cyanide and isocyanate-containing compounds.
Extinguishing media	Use dry chemical, carbon dioxide, or foam. Water spray (fog).
Dust explosion hazard	None Known
Sensitivity to mechanical impact	None Known
Sensitivity to static discharge	None Known
Fire fighting equipment/instructions	Firefighters should wear NFPA compliant structural fire fighting protective equipment, including a self-contained breathing apparatus, helmet, hood, boots and gloves. Avoid contact with isocyanates. During a fire, isocyanate vapors and other irritating and highly toxic gases may be produced.
Flash point	> 160 °F (> 71.1 °C)

6. ACCIDENTAL RELEASE MEASURES

Emergency action	Appropriate safety measures and protective equipment should be used. See Section 8. Do not discharge to lakes, streams, ponds, or sewers. Dispose of in compliance with local, state, and federal regulations.
Spill or leak procedure	Scrape up paste and place in steel drums that are in good condition. Thoroughly clean area where spill occurred.
Containment	Isolate spill area. Stop discharge if safe to do so. Stop material from contaminating soil or from entering sewers or water streams.
Reporting	See Federal reporting requirements listed in Section 15. We recommend you contact local authorities to determine if there may be other local reporting requirements.

7. HANDLING & STORAGE

Handling	Wash hands thoroughly after handling, especially before eating, drinking, smoking, and using restroom facilities. Wash contaminated goggles, face shields, and gloves. Professionally launder contaminated clothing before re-use. Do not breathe vapors, mists or dusts. Do not breathe fumes generated when the material is overheated or burned. Use adequate ventilation. Wear respiratory protection if the material is heated, sprayed, used in a confined space or if exposure limit is exceeded. This product can produce asthmatic sensitization. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must avoid fumes from this product. Wear appropriate protective equipment to avoid contact with skin and eyes.
Storage	Store in a cool, dry, well-ventilated area away from heat, ignition sources and direct sunlight. Water contamination should be avoided. Cool location should be 60-80 degrees F or 15-30 degrees C.
Empty container precaution	Attention! Follow label warnings even after container is emptied since empty containers may retain product residues. Do not reuse empty container without professional cleaning for food, clothing, or products for human or animal consumption, or where skin contact can occur.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls	Use local exhaust or general ventilation where the potential exists to exceed the PEL or TLV exposure limits.
Eye protection	Wear goggles or safety glasses with side shields.
Skin and body protection	Wear appropriate clothing to minimize skin contact with this product.
Respiratory protection	Avoid breathing vapor and/or mists. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection. High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator.
General	Eyewash fountains and emergency showers should be readily available.

Exposure limits

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)		
Ethyl benzene	100-41-4	100 ppm TWA
Methylene Diphenyl Isocyanate (MDI)	101-68-8	0.005 ppm TWA
Xylenes (o-, m-, p- isomers)	1330-20-7	100 ppm TWA
NIOSH - Pocket Guide - TWAs		
Ethyl benzene	100-41-4	100 ppm TWA; 435 mg/m3 TWA
Methylene Diphenyl Isocyanate (MDI)	101-68-8	0.005 ppm TWA; 0.05 mg/m3 TWA
OSHA - Final PELs - Time Weighted Averages (TWAs)		
Ethyl benzene	100-41-4	100 ppm TWA; 435 mg/m3 TWA
Xylenes (o-, m-, p- isomers)	1330-20-7	100 ppm TWA; 435 mg/m3 TWA
OSHA - Vacated PELs - Ceilings		
Methylene Diphenyl Isocyanate (MDI)	101-68-8	0.02 ppm Ceiling; 0.2 mg/m3 Ceiling
OSHA - Vacated PELs - TWAs		
Ethyl benzene	100-41-4	100 ppm TWA; 435 mg/m3 TWA
Xylenes (o-, m-, p- isomers)	1330-20-7	100 ppm TWA; 435 mg/m3 TWA

9. PHYSICAL & CHEMICAL PROPERTIES

Target solids	96 %
Density	1.352 g/cc
Odor	Solvent
Color	Various
Physical state	Paste
Freeze protect	No
VOC (Volatile Organic Compounds)	3.9 %

10. STABILITY & REACTIVITY

Hazardous reactions/decomposition products	Unknown due to the complex nature of this material. Fumes from complete or incomplete combustion may include carbon dioxide, carbon monoxide, water vapor, oxides of nitrogen and a wide variety of innocuous or toxic fumes. Additional decomposition products include oxides of nitrogen, amines, hydrogen cyanide and isocyanate-containing compounds.
Hazardous polymerization	Hazardous polymerization can occur with elevated temperatures or contact with water.
Conditions to avoid	Avoid Strong Acids. Avoid water, amines, strong bases, alcohols and metallic hydrides.

Stability This product is stable under normal conditions but will react slightly with water to release some heat and carbon dioxide. The reaction is not violent. Carbon dioxide, carbon monoxide and in high temperature (800° F) low oxygen atmospheres such as in fire situations, hydrogen cyanide may be released.

11. TOXICOLOGICAL INFORMATION

Toxicological data If any toxicological data is available, it will be listed below:

LD50

Toxicology Data - Selected LD50s and LC50s

Ethyl benzene	100-41-4	Inhalation LC50 Rat: 17.2 mg/L/4H; Oral LD50 Rat: 3500 mg/kg; Dermal LD50 Rabbit: 15354 mg/kg
Methylene Diphenyl Isocyanate (MDI)	101-68-8	Oral LD50 Rat: 9200 mg/kg
Xylenes (o-, m-, p- isomers)	1330-20-7	Inhalation LC50 Rat: 5000 ppm/4H; Oral LD50 Rat: 4300 mg/kg; Dermal LD50 Rabbit: >1700 mg/kg

Carcinogenicity If this product contains any carcinogens, they will be noted below:

This product contains Methylene Diphenyl Isocyanate (MDI). MDI is not listed by the NTP, IARC or regulated by OSHA as a carcinogen. However, it has been shown to alter cells in certain experiments. Although inconclusive, these cellular changes are thought to indicate potential carcinogenicity.

IARC - Group 2B (Possibly Carcinogenic to Humans)

Ethyl benzene	100-41-4	Monograph 77 [2000]

OSHA - Hazard Communication Carcinogens

Ethyl benzene	100-41-4	Present

Local effects Single large does, and/or repeated exposures, may lead to sensitization to diisocyanates or polyisocyanates (asthma or asthma-like symptoms), causing an individual to experience adverse effects at exposure levels well below exposure limits or guidelines. Symptoms may include chest tightness, wheezing, shortness of breath, coughing or asthmatic attack, and may be delayed up to several hours. Extreme asthmatic reactions can be life threatening. Once sensitized, an individual may experience adverse symptoms upon exposure to dust, cold air or other irritants. Sensitization can last several months, years or be permanent in some cases. Chronic exposure may cause lung damage, including fibrosis and decreased lung function, which may be permanent.

12. ECOLOGICAL INFORMATION

VOC (Volatile Organic Compounds) 3.9 %

Ecotoxicological information Organic solvents produce slight to moderate toxicity to aquatic life.

13. DISPOSAL CONSIDERATIONS

It is the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable local, state and federal regulations.

Waste disposal Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORT INFORMATION

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

This MSDS is prepared and distributed pursuant to the Federal Hazard Communication Standard, 29 CFR 1910.1200.

Federal regulations All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Ethyl benzene	100-41-4	1000 lb final RQ; 454 kg final RQ
Methylene Diphenyl Isocyanate (MDI)	101-68-8	5000 lb final RQ; 2270 kg final RQ
Xylenes (o-, m-, p- isomers)	1330-20-7	100 lb final RQ; 45.4 kg final RQ

CERCLA/SARA - Section 313 - Emission Reporting

Ethyl benzene	100-41-4	0.1 % de minimis concentration
Methylene Diphenyl Isocyanate (MDI)	101-68-8	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)
Xylenes (o-, m-, p- isomers)	1330-20-7	1.0 % de minimis concentration

CWA (Clean Water Act) - Hazardous Substances

Ethyl benzene	100-41-4	Present
Xylenes (o-, m-, p- isomers)	1330-20-7	Present

TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification

Chlorobenzene	108-90-7	Section 4
Xylenes (o-, m-, p- isomers)	1330-20-7	Section 4

State regulations If this product contains any ingredients listed under California Proposition 65, they will be noted below:

California - Proposition 65 - Carcinogens List

Ethyl benzene	100-41-4	carcinogen, initial date 6/11/04

International regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and contains all the information required by the Controlled Products Regulations.
All components are included on the Canadian Domestic Substances List (DSL).

HMIS Ratings
Health: 2*
Flammability: 2
Physical hazard: 0
Personal protection: X

SARA 311/312 HAZARD CATEGORIES
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

WHMIS status Controlled

WHMIS labeling

WHMIS classification
D2A - Other Toxic Effects-VERY TOXIC
D2B - Other Toxic Effects-TOXIC

16. OTHER INFORMATION

Product name(s) covered
A41000 - 916 STONE L
A41100 - 916 BRONZE L
A41200 - 916 WHITE L
A41500 - 916 LIMESTONE L
A41800 - 916 ALMOND L

Disclaimer The data in this MSDS has been compiled from publicly available sources. This data relates only to the designated product and not to the use of said product in combination with other materials. 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 which exist. Responsibility for proper precautions and safe use of the product lies with the user. All data in this MSDS is typical of the product as a whole, and does not represent any individual lot or batch, therefore, Bostik, Inc. makes no warranty about the accuracy of the data herein and assumes no liability for the use of such data. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Further information Any characters following an individual item number are just designations for the various types of packaging that are available for this product. For example, a product "G12345-XX" is item number "G12345" with a packaging designation of "XX". These characters do not indicate a different product nor a different regulatory, health, safety and/or environmental status. This document covers the item numbers listed above for all of their packaging types.

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