# MATERIAL SAFETY DATA SHEET

Supplier: Johnsonite, Inc.
16910 Munn Road, Chagrin Falls, Ohio 44023

Product: 906 Conductive Adhesive

24-Hour Emergency Telephone - Chemtrec: (800-424-9300)

## SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: JOHNSONITE 906 Conductive Adhesive
CHEMICAL FAMILY: Water Base Adhesive

## SECTION 2. HAZARDOUS INGREDIENTS AND EXPOSURE LIMITS

| Chemical Name | CAS Number | % by Weight |
|---|---|---|
| Vinyl acrylic polymer | 28040-72-4 | 30-60 |
| Rosin Ester | Proprietary | 7-13 |
| Acrylic polymer | 31069-81-5 | 3-7 |
| Silica Sand | 14808-60-7 | 1-5 |
| Sodium hydroxide | 1310-73-2 | 0.5-1.5 |

## SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication). This product is irritating to the eyes.

HAZARD STATEMENTS
CAUTION! Irritating to eyes. Chronic lung disease (silicosis) and/or lung cancer may result from prolonged/repeated breathing of the dust of this material. Wear suitable gloves, eye/face protection, and respiratory protection. Keep out of the reach of children.

POTENTIAL HEALTH EFFECTS**:**

EYE CONTACT: This product is irritating to the eyes. Symptoms can include irritation, redness, scratching of the cornea, and tearing.

SKIN CONTACT**:** This product may cause irritation to the skin. Prolonged and/or repeated skin contact may result in mild irritation or redness. Mechanical rubbing may increase skin irritation.

INGESTION**:** Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

INHALATION**:** This product may be harmful by inhalation. Chronic lung disease (silicosis) and/or lung cancer may result from prolonged/repeated breathing of the dust of this material. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Hypersensitivity to product, allergies, and skin or respiratory disorders

POTENTIAL ENVIRONMENTAL EFFECTS: None identified.

## SECTION 4. FIRST AID MEASURES

EYE CONTACT: In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. If irritation persists get medical attention.

SKIN CONTACT: For skin contact, flush with large amounts of water. If irritation persists, get medical attention.

INGESTION: For ingestion, flush out mouth with water. If ingestion of a large amount does occur, seek medical

attention. Do not induce vomiting.
INHALATION: If inhaled, immediately remove the affected person to fresh air. If the affected person is not breathing, apply artificial respiration. If symptoms persist, get medical attention.
FIRST AID: NOTES TO PHYSICIAN:
Provide general supportive measures and treat symptomatically.

## SECTION 5. FIRE-FIGHTING MEASURES

GENERAL FIRE HAZARDS: Not a fire hazard. This product is an aqueous mixture which will not burn. If evaporated to dryness, the solid residue may pose a moderate fire hazard.
FLASH POINT: N/A
LOWER FLAMMABLE LIMIT: N/A
UPPER FLAMMABLE LIMIT: N/A
FIRE-FIGHTING INSTRUCTIONS: Use protective clothing and self-contained breathing apparatus.
EXTINGUISHING MEDIA: Dry chemical preferred, $CO_2$, water, and foam.
HAZARDOUS COMBUSTION PRODUCTS: Irritating and toxic gases or fumes may be released during a fire. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Avoid the generation of dusts during clean-up. Wear appropriate protective equipment and clothing during clean-up.
CONTAINMENT PROCEDURES: Contain the discharged material.
CLEAN-UP PROCEDURES: Attempt to reclaim the free product, if this is possible. Shovel the material into waste container. Thoroughly wash the area with water after a spill or leak clean-up. Wear appropriate protective equipment and clothing during clean-up. Keep out of the reach of children.
EVACUATION PROCEDURES: None identified.
SPECIAL PROCEDURES: Wear a dust mask if dust is generated above exposure limits.

## SECTION 7. HANDLING AND STORAGE

HANDLING PROCEDURES: Avoid getting this material into contact with your skin and eyes. Avoid breathing dusts from this material. Wash hands after handling and before eating. Keep out of the reach of children.
STORAGE PROCEDURES: Store in a cool, dry, well-ventilated area. Keep the container tightly closed. Do not freeze.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMITS

SILICA SAND (14808-60-7)

| | |
|---|---|
| ACGIH: | 0.025 mg/m3 TWA (respirable fraction) |
| NIOSH: | 0.05 mg/m3 TWA (respirable dust) |
| Alberta: | 0.1 mg/m3 TWA (respirable particulate) |
| British Columbia: | ACGIH Category A2 - Suspected Human Carcinogen; IARC Category 1 - Human Carcinogen<br>0.025 mg/m3 TWA (respirable) |
| Manitoba: | 0.025 mg/m3 TWA (respirable fraction) |
| New Brunswick: | 0.1 mg/m3 TWA (respirable fraction) |
| NW Territories: | 0.1 mg/m3 TWA (respirable mass); 0.3 mg/m3 TWA (total mass) |
| Nova Scotia: | 0.025 mg/m3 TWA (respirable fraction) |
| Nunavut: | 0.1 mg/m3 TWA (respirable mass); 0.3 mg/m3 TWA (total mass) |
| Ontario: | 0.10 mg/m3 TWAEV<br>0.10 mg/m3 TWAEV (designated substance regulation) |
| Quebec: | 0.1 mg/m3 TWAEV (respirable dust) |
| Saskatchewan: | 0.05 mg/m3 TWA (respirable fraction) |
| Yukon: | 300 particles/mL TWA |

SODIUM HYDROXIDE (1310-73-2)

| | |
|---|---|
| ACGIH: | 2 mg/m3 Ceiling |
| OSHA (Final): | 2 mg/m3 TWA |
| NIOSH: | 2 mg/m3 Ceiling |
| Alberta: | 2 mg/m3 Ceiling |
| British Columbia: | 2 mg/m3 Ceiling |
| Manitoba: | 2 mg/m3 Ceiling |
| New Brunswick: | 2 mg/m3 Ceiling |
| NW Territories: | 2 mg/m3 Ceiling |
| Nova Scotia: | 2 mg/m3 Ceiling |
| Nunavut: | 2 mg/m3 Ceiling |
| Ontario: | 2 mg/m3 CEV |
| Quebec: | 2 mg/m3 Ceiling |
| Saskatchewan: | 2 mg/m3 Ceiling |
| Yukon: | 2 mg/m3 Ceiling |

PERSONAL PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION: Wear safety glasses with side shields or splash goggles if contact with material is likely.

SKIN PROTECTION: Wear nitrile-latex gloves where contact with material is likely.

RESPIRATORY PROTECTION: If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

GENERAL: Launder contaminated clothing before reuse. Use good industrial hygiene practices in handling this material.

ENGINEERING CONTROLS: Normal room ventilation. Site specific ventilation such as open windows and doors, with fans, where used in enclosed areas.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Black paste. Slight latex odor
pH: 7.5 – 8.5
VAPOR PRESSURE: Not Applicable.
VAPOR DENSITY (air=1): Not Applicable.
BOILING POINT: >212$^{o}$F, >100$^{o}$C
SPECIFIC GRAVITY (WATER = 1): 1.15
VOLATILE ORGANIC COMPOUNDS: 56 grams / liter.
ADDITIONAL INFORMATION: The data provided in this section is to be used for product safety handling purposes. Please refer to Product Data Sheets, Certificates of Conformity or Certificates of Analysis for chemical and physical data for determinations of quality and for formulation purposes.

## SECTION 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions.
CONDITIONS TO AVOID: Keep away from heat, ignition sources and incompatible materials.
INCOMPATIBILITY: This product may react with strong acids, bases and oxidizing agents.
HAZARDOUS DECOMPOSITION: Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Upon decomposition, this product may emit fumes of carbon monoxide, carbon dioxide, oxides of nitrogen, and other organic compounds.
POSSIBILITY OF HAZARDOUS REACTIONS: Will not occur.

## SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE DOSE EFFECTS
**A:** GENERAL PRODUCT INFORMATION: No information available for the product.
**B:** COMPONENT ANALYSIS - LD50/LC50
SILICA SAND (14808-60-7): Oral LD50 Rat: 500 mg/kg

SODIUM HYDROXIDE (1310-73-2**)**: Dermal LD50 Rabbit: 1350 mg/kg

CARCINOGENICITY

**A:** GENERAL PRODUCT INFORMATION: Exposure to quartz (the most stable and common form of crystalline silica) is responsible for the majority of clinically diagnosed silicosis. Silicosis is a fibronodular lung disease that occurs after occupational exposure to crystalline silica for 5 years or longer. Inhalation of quartz dusts may cause shortness of breath, limitation of chest expansion, dry cough, and a lessened capacity for work. Individuals with a pre-existing disease in, or a history of ailments involving the skin or respiratory tract, are at a greater risk of developing adverse health effects when exposed to this material.

**B:** COMPONENT CARCINOGENICITY

SILICA SAND (14808-60-7)

ACGIH: A2 - Suspected Human Carcinogen
NIOSH: potential occupational carcinogen
NTP: Known Human Carcinogen (Select Carcinogen)
IARC: Monograph 68 [1997] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources) (Group 1 (carcinogenic to humans))

SENSITIZATION: No information available for the product.

## SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICITY

**A:** GENERAL PRODUCT INFORMATION: No information available for the product.

**B:** COMPONENT ANALYSIS - ECOTOXICITY - AQUATIC TOXICITY

SODIUM HYDROXIDE (1310-73-2)

| Test & Species | | Conditions |
|---|---|---|
| 96 Hr LC50 Oncorhynchus mykiss | 45.4 mg/L | [static] |

## SECTION 13. DISPOSAL CONSIDERATIONS

US EPA WASTE NUMBER & DESCRIPTIONS

**A:** GENERAL PRODUCT INFORMATION

No additional information available.

**B:** COMPONENT WASTE NUMBERS

No EPA Waste Numbers are applicable for this product's components.

DISPOSAL INSTRUCTIONS

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

## SECTION 14. TRANSPORT INFORMATION

For domestic transportation purposes, this product is not designated as a hazardous material by the U.S. Department of Transportation.

International Transportation Regulations Not regulated as dangerous goods.

## SECTION 15. REGULATORY INFORMATION

TSCA: The components of this product are listed on the TSCA inventory. All components of this product are included, or are exempt from inclusion, in the Canadian Domestic Substance List unless otherwise noted.

COMPONENT ANALYSIS: This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

SODIUM HYDROXIDE **(1310-73-2)**

| | |
|---|---|
| CERCLA: | 1000 lb final RQ; 454 kg final RQ |

STATE REGULATIONS

**A:** GENERAL PRODUCT INFORMATION: Other state regulations may apply. Check individual state requirements.

**B:** COMPONENT ANALYSIS – STATE**:** The following components appear on one or more of the following state hazardous substances lists:

| Component | CAS | CA | MA | MN | NJ | PA | RI |
|---|---|---|---|---|---|---|---|
| Silica Sand | 14808-60-7 | No | Yes | Yes | Yes | Yes | Yes |
| Sodium hydroxide | 1310-73-2 | Yes | Yes | Yes | Yes | Yes | Yes |

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

CANADIAN WHMIS INFORMATION

**A:** GENERAL PRODUCT INFORMATION

**B:** COMPONENT ANALYSIS - WHMIS IDL
The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

| Component | CAS # | Minimum Concentration |
|---|---|---|
| Silica Sand | 14808-60-7 | 1 % |

ADDITIONAL REGULATORY INFORMATION
**A:** GENERAL PRODUCT INFORMATION
Supplier(s) of proprietary component(s) state that these components are contained on the TSCA inventory.
**B:** COMPONENT ANALYSIS - INVENTORY

| Component | CAS # | TSCA | CAN | EEC |
|---|---|---|---|---|
| Vinyl acrylic polymer | 28040-72-4 | Yes | DSL | No |
| Acrylic polymer | 31069-81-5 | Yes | DSL | No |
| Silica Sand | 14808-60-7 | Yes | DSL | EINECS |
| Sodium hydroxide | 1310-73-2 | Yes | DSL | EINECS |

CALIFORNIA VOC (Volatile Organic Compound) COMPLIANCE:
Solvent Free Product
SCAQMD Rule 1168 Grams of VOC 56 gram/liter

## SECTION 16. OTHER INFORMATION

HMIS RATINGS: Health = 1 Flammability = 0 Reactivity = 0
Personal Protective Equipment = Safety Glasses and Gloves
Hazard rating scale: 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

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DATE ISSUED: January 3, 2012 CONTACT: Don Styka