



# Material Safety Data Sheet

LN-903 HVY DUTY VOC AHE90324TN0

## 1. Product and company identification

<b>Product name</b>	: LN-903 HVY DUTY VOC AHE90324TN0
<b>Manufacturer</b>	: Akzo Nobel Paints LLC 15885 West Sprague Road Strongsville, OH 44136 U.S.A.
<b>Validation date</b>	: <b>2013-03-12.</b>
<b>Print date</b>	: 2013-03-12.
<b>Responsible name</b>	: Product Safety and Compliance
<b>In case of emergency</b>	: 1-800-545-2643

## 2. Hazards identification

### Emergency overview

<b>Physical state</b>	: Liquid.
<b>Signal word</b>	: WARNING!
<b>Hazard statements</b>	CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.
<b>Precautionary measures</b>	: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Use personal protective equipment as required. Wash thoroughly after handling.

### Potential acute health effects

<b>Inhalation</b>	: Irritating to respiratory system.
<b>Ingestion</b>	: Harmful if swallowed.
<b>Skin</b>	: Irritating to skin.
<b>Eyes</b>	: Irritating to eyes.

### Potential chronic health effects

<b>Chronic effects</b>	: Contains material that may cause target organ damage, based on animal data.
<b>Carcinogenicity</b>	: Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.
<b>Target organs</b>	: Contains material which may cause damage to the following organs: kidneys, lungs, upper respiratory tract, skin, eyes, stomach, testes.

### Over-exposure signs/symptoms

<b>Inhalation</b>	: Adverse symptoms may include the following: respiratory tract irritation coughing
<b>Ingestion</b>	: No specific data.
<b>Skin</b>	: Adverse symptoms may include the following: irritation redness

## 2. Hazards identification

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

See toxicological information (Section 11)

## 3. Composition/information on ingredients

Name	CAS number	%
Limestone	1317-65-3	10-<30
Kaolin	1332-58-7	10-<30
Acrylic resin, waterborne		10-<30
Acrylic (co)polymer, waterborne		1-<5
Quartz (SiO <sub>2</sub> )	14808-60-7	1-<5
titanium dioxide	13463-67-7	0.1-<1.0
cristobalite	14464-46-1	0.1-<1.0
water	7732-18-5	10-<30
Formaldehyde	50-00-0	< 0.01

## 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. If any product remains, gently rub with petroleum jelly, vegetable or mineral/baby oil then wash again with soap and water. Repeat as needed. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

## 5. Fire-fighting measures

**Flammability of the product** : In a fire or if heated, a pressure increase will occur and the container may burst.

### Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide  
 metal oxide/oxides

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Keep out of the reach of children.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Keep from freezing.

## 8. Exposure controls/personal protection

Ingredient	Exposure limits
Limestone	<p><b>NIOSH REL (United States, 6/2009).</b>            TWA: 5 mg/m<sup>3</sup> 10 hour(s). Form: Respirable fraction            TWA: 10 mg/m<sup>3</sup> 10 hour(s). Form: Total</p> <p><b>OSHA PEL (United States, 6/2010).</b>            TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction            TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b>            TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction            TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust</p>
Kaolin	<p><b>ACGIH TLV (United States, 1/2011). Notes: 1996 Adoption Refers to Appendix A -- Carcinogens. Respirable fraction; see Appendix C, paragraph C.</b>            TWA: 2 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction</p> <p><b>NIOSH REL (United States, 6/2009).</b>            TWA: 5 mg/m<sup>3</sup> 10 hour(s). Form: Respirable fraction            TWA: 10 mg/m<sup>3</sup> 10 hour(s). Form: Total</p> <p><b>OSHA PEL (United States, 6/2010).</b></p>

## 8. Exposure controls/personal protection

Quartz (SiO <sub>2</sub> )	<p>TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust  <b>OSHA PEL 1989 (United States, 3/1989).</b>  TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Total dust</p> <p><b>OSHA PEL Z3 (United States, 9/2005). Notes: 10/(SiO<sub>2</sub>+2)</b>  TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Respirable  <b>OSHA PEL Z3 (United States, 9/2005). Notes: 250/(%SiO<sub>2</sub>+5)</b>  TWA: 250 mppcf 8 hour(s). Form: Respirable  <b>OSHA PEL 1989 (United States, 3/1989). Notes: as quartz</b>  TWA: 0.1 mg/m<sup>3</sup>, (as quartz) 8 hour(s). Form: Respirable dust  <b>ACGIH TLV (United States, 1/2011). Notes: Respirable fraction; see Appendix C, paragraph C.</b>  TWA: 0.025 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  <b>OSHA PEL Z3 (United States, 9/2005). Notes: 30/(%SiO<sub>2</sub>+2)</b>  TWA: 30 mg/m<sup>3</sup> 8 hour(s). Form: Total dust.  <b>NIOSH REL (United States, 6/2009). Notes: See Appendix A - NIOSH Potential Occupational Carcinogen</b>  TWA: 0.05 mg/m<sup>3</sup> 10 hour(s). Form: respirable dust</p>
titanium dioxide	<p><b>OSHA PEL (United States, 6/2010).</b>  TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust  <b>OSHA PEL 1989 (United States, 3/1989).</b>  TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Total dust  <b>ACGIH TLV (United States, 1/2011). Notes: Substance identified by other sources as a suspected or confirmed human carcinogen. 1996 Adoption Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL. Refers to Appendix A -- Carcinogens.</b>  TWA: 10 mg/m<sup>3</sup> 8 hour(s).</p>
cristobalite	<p><b>OSHA PEL Z3 (United States, 9/2005). Notes: 1/2[10/(%SiO<sub>2</sub>+2)]</b>  TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Respirable  <b>OSHA PEL Z3 (United States, 9/2005). Notes: 1/2[250/(%SiO<sub>2</sub>+5)]</b>  TWA: 250 mppcf 8 hour(s). Form: Respirable  <b>OSHA PEL 1989 (United States, 3/1989). Notes: as quartz</b>  TWA: 0.05 mg/m<sup>3</sup>, (as quartz) 8 hour(s). Form: Respirable dust  <b>ACGIH TLV (United States, 1/2011). Notes: Respirable fraction; see Appendix C, paragraph C.</b>  TWA: 0.025 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction  <b>OSHA PEL Z3 (United States, 9/2005). Notes: 1/2[30/(%SiO<sub>2</sub>+2)]</b>  TWA: 30 mg/m<sup>3</sup> 8 hour(s). Form: Total dust.  <b>NIOSH REL (United States, 6/2009).</b>  TWA: 0.05 mg/m<sup>3</sup> 10 hour(s). Form: respirable dust</p>

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

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

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

### Personal protection

## 8. Exposure controls/personal protection

- Respiratory** : A NIOSH-approved, air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where air-purifying respirators may not provide adequate protection.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : 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

- Physical state** : Liquid.
- Flash point** : Closed cup: 96°C (204.8°F)
- Auto-ignition temperature** : Not available.
- Flammable limits** : Not available.
- Color** : Not available.
- Odor** : not available
- pH** : Not available.
- Boiling/condensation point** : 100°C (212°F)
- Melting/freezing point** : 0°C (32°F)
- Specific gravity** : 1.486
- Density (lbs/gal)** : 12.401
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Volatility** : 44.04% (v/v), 29.67% (w/w)
- Viscosity** : Dynamic: 99999 mPa·s (99999 cP)
- Dispersibility properties** : Easily dispersible in the following materials: cold water.
- Solubility** : Easily soluble in the following materials: cold water.
- VOC g/l** : 46 g/l [Method 24]

## 10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

## 11. Toxicological information

### Acute toxicity

**Conclusion/Summary** : Not available.

### Chronic toxicity

**Conclusion/Summary** : Not available.

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-

**Conclusion/Summary** : Not available.

### Sensitizer

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Kaolin	A4	-	-	-	-	-
Quartz (SiO <sub>2</sub> )	A2	1	-	+	Proven.	-
titanium dioxide	A4	2B	-	+	-	-
cristobalite	A2	1	-	+	Proven.	-

### Mutagenicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

## 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
titanium dioxide	Acute EC50 5.83 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 5.5 ppm Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) - <24 hours	48 hours
	Acute LC50 >1000000 ug/L Marine water	Fish - Fundulus heteroclitus	96 hours

**Conclusion/Summary** : Not available.

### Persistence/degradability

**Conclusion/Summary** : Not available.



## 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	-	-	-		-
IMDG Class	Not available.	Not available.	Not available.	-		-

PG\* : Packing group

## 15. Regulatory information

**U.S. Federal regulations** : **United States inventory (TSCA 8b)**: All components are listed or exempted.  
**SARA 302/304/311/312 extremely hazardous substances**: No components were found.  
**SARA 302/304 emergency planning and notification**: No components were found.  
**SARA 302/304/311/312 hazardous chemicals**: Limestone; Kaolin; Quartz (SiO<sub>2</sub>)  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**:  
 Limestone: Immediate (acute) health hazard; Kaolin: Delayed (chronic) health hazard;  
 Quartz (SiO<sub>2</sub>): Immediate (acute) health hazard, Delayed (chronic) health hazard

### State regulations

**Massachusetts** : The following components are listed: CALCIUM CARBONATE; SILICA, CRYSTALLINE, QUARTZ

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: CALCIUM CARBONATE; LIMESTONE; KAOLIN; SILICA, QUARTZ; QUARTZ (SiO<sub>2</sub>); TITANIUM DIOXIDE; TITANIUM OXIDE (TiO<sub>2</sub>); SILICA, CRISTOBALITE; CRISTOBALITE (SiO<sub>2</sub>)

**Pennsylvania** : The following components are listed: LIMESTONE; KAOLIN; QUARTZ (SiO<sub>2</sub>); TITANIUM OXIDE (TiO<sub>2</sub>); CRISTOBALITE (SiO<sub>2</sub>)

### California Prop. 65

**WARNING**: This product contains a chemical known to the State of California to cause cancer.

### International regulations

**Canada inventory** : Not determined.

## 16. Other information

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

Health	*	2
Flammability		1
Physical hazards		0

**Caution**: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

## 16. Other information

The customer is responsible for determining the PPE code for this material.

**Prepared by** : Product Safety and Compliance Akzo Nobel Paints LLC

### Notice to reader

The information contained herein is based on data available at the time of preparation of this data sheet and which Akzo Nobel Paints LLC believes to be reliable. However, no warranty is expressed or implied regarding the accuracy of this data. Akzo Nobel Paints LLC shall not be responsible for the use of this information, or of any product, method or apparatus mentioned and you must make your own determination of its suitability and completeness for your own use, for the protection of the environment, and the health and safety of your employees and users of this material.

Complies with OSHA Hazard Communication Standard 29CFR1910.1200.







Revision Number: 002.0

Issue date: 11/15/2011

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** Loctite® PL375™ Heavy Duty Construction Adhesive - VOC  
**Product type:** Water based adhesive  
**Company address:** Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067

**IDH number:** 1390601  
**Region:** United States  
**Contact information:**  
 Telephone: 800.624.7767  
 MEDICAL EMERGENCY Phone: Poison Control Center  
 1-877-671-4608 (toll free) or 1-303-592-1711  
 TRANSPORT EMERGENCY Phone: CHEMTREC  
 1-800-424-9300 (toll free) or 1-703-527-3887

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

<b>Physical state:</b>	pasty	<b>HEALTH:</b>	1
<b>Color:</b>	Off white	<b>FLAMMABILITY:</b>	0
<b>Odor:</b>	mild, acrylic	<b>PHYSICAL HAZARD:</b>	0
		<b>Personal Protection:</b>	See MSDS Section 8

**CAUTION:** MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

**Relevant routes of exposure:** Inhalation, Skin contact

**Potential Health Effects**

**Inhalation:** May cause irritation to nose and throat. Abrasion of cured material such as by sanding or grinding could release respirable particles of silica quartz, a cancer hazard by inhalation. Normal use of this product causes no such release.

**Skin contact:** May cause slight irritation to skin.

**Eye contact:** May cause slight irritation to eyes on contact.

**Ingestion:** Not expected to be harmful by ingestion. Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.

**Existing conditions aggravated by exposure:** None known

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

See Section 11 for additional toxicological information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Hazardous components	CAS NUMBER	%
Limestone	1317-65-3	30 - 60
Kaolin	1332-58-7	1 - 5
Ethylene glycol	107-21-1	1 - 5
Quartz (SiO2)	14808-60-7	0.1 - 1

**4. FIRST AID MEASURES**

**Inhalation:** Move to fresh air in case of accidental inhalation of vapours.

**Skin contact:** Wash affected area immediately with soap and water.

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. If symptoms develop and persist, get medical attention.

**Ingestion:** Consult a physician if necessary.

## 5. FIRE FIGHTING MEASURES

**Flash point:** not applicable

**Autoignition temperature:** Not available.

**Flammable/Explosive limits - lower:** Not available.

**Flammable/Explosive limits - upper:** Not available.

**Extinguishing media:** Carbon dioxide, foam, powder Water fog.

**Special firefighting procedures:** Use water spray to keep fire exposed containers cool and disperse vapors.

**Unusual fire or explosion hazards:** Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

**Hazardous combustion products:** Oxides of carbon. Oxides of nitrogen.

## 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**Environmental precautions:** Not available.

**Clean-up methods:** Absorb spill with inert material. Shovel material into appropriate container for disposal.

## 7. HANDLING AND STORAGE

**Handling:** Avoid prolonged or repeated skin contact with this material. Keep out of the reach of children.

**Storage:** For safe storage, store at or above 0 °C (32°F)  
Keep from freezing. Store in a cool, dry area. Keep containers closed when not in use.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Limestone	10 mg/m3 TWA Total dust.	5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust.	None	None
Kaolin	2 mg/m3 TWA Respirable fraction.	5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust.	None	None
Ethylene glycol	100 mg/m3 Ceiling Aerosol.	None	None	None
Quartz (SiO <sub>2</sub> )	0.025 mg/m3 TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 0.3 mg/m3 TWA Total dust.	None	None

<b>Engineering controls:</b>	Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.
<b>Respiratory protection:</b>	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
<b>Eye/face protection:</b>	Safety goggles or safety glasses with side shields.
<b>Skin protection:</b>	Suitable protective clothing

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	pasty
<b>Color:</b>	Off white
<b>Odor:</b>	mild, acrylic
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	7.2 - 7.8
<b>Vapor pressure:</b>	15.0000000 mm hg (20.0 °C (68°F))
<b>Boiling point/range:</b>	100 °C (212°F)
<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	1.224
<b>Vapor density:</b>	Heavier than air
<b>Flash point:</b>	not applicable
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Autoignition temperature:</b>	Not available.
<b>Evaporation rate:</b>	< 0.6 (Butyl acetate = 1)
<b>Solubility in water:</b>	Soluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	< 0.1 %; < 2 g/l (calculated)

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Oxides of nitrogen.
<b>Incompatible materials:</b>	None expected.
<b>Conditions to avoid:</b>	Heat. Do not freeze.

## 11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Limestone	No	No	No
Kaolin	No	No	No
Ethylene glycol	No	No	No
Quartz (SiO <sub>2</sub> )	Known To Be Human Carcinogen.	Group 1	No

Hazardous components	Health Effects/Target Organs
Limestone	Nuisance dust
Kaolin	Nuisance dust
Ethylene glycol	Blood, Bone Marrow, Central nervous system, Developmental, Eyes, Irritant, Kidney, Liver, Metabolic
Quartz (SiO <sub>2</sub> )	Immune system, Lung, Some evidence of carcinogenicity

## 12. ECOLOGICAL INFORMATION

Ecological information: Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Dispose of according to Federal, State and local governmental regulations.

**Hazardous waste number:** It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

## 14. TRANSPORT INFORMATION

### U.S. Department of Transportation Ground (49 CFR)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### Water Transportation (IMO/IMDG)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

## 15. REGULATORY INFORMATION

### United States Regulatory Information

**TSCA 8 (b) Inventory Status:** All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

**TSCA 12(b) Export Notification:** None above reporting de minimus

**CERCLA/SARA Section 302 EHS:** None above reporting de minimus  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health  
**CERCLA/SARA 313:** This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Ethylene glycol (CAS# 107-21-1).

**California Proposition 65:** This product contains a chemical known in the State of California to cause cancer.

**Canada Regulatory Information**

**CEPA DSL/NDSL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

**16. OTHER INFORMATION**

**This material safety data sheet contains changes from the previous version in sections:** This Material Safety Data Sheet contains changes from the previous version in Section(s): 1, 3, 11

**Prepared by:** Mary Ellen Roddy, Sr. Regulatory Affairs Specialist

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# MasterWeld® 948

High-strength, high-solids polyurethane adhesive

FORMERLY CHEMREX® CX - 948

## PACKAGING

- 313 ml cartridges
- 828 ml cartridges

## COLORS

Light brown

## YIELD

See page 3 for chart.

## STORAGE

Store in unopened containers in a cool, dry area away from direct sunlight. Storing at elevated temperatures will reduce shelf life. MasterWeld 948 remains flexible even when stored at freezing temperatures, but should be stored at room temperature for at least 24 hours before using.

## SHELF LIFE

1 year when properly stored

## VOC CONTENT

45 g/L or 0.38 lbs/gal, less water and exempt solvents.

## DESCRIPTION

MasterWeld 948 is a high-strength, high-solids, low-VOC polyurethane adhesive that is stronger than conventional adhesives. It produces a permanent overnight bond to almost any substrate. It can be used in a wide range of climates and conditions.

## PRODUCT HIGHLIGHTS

- Low odor and low VOC formulation is safe to use in occupied indoor spaces
- Strong and versatile adhesion that permanently bonds together nearly any material
- High solids, nonshrinking formulation provides desired coverage without cracking or losing bond over time
- Provides a tenacious bond that is stronger than many substrates it joins together; up to 3 times the strength of conventional adhesives
- Provides permanent overnight bond for faster project completion
- Long open time offers flexibility in repositioning; user friendly
- Can be applied to frozen, frost-free lumber for on site versatility
- Broad service temperature range is suitable for use in hot and cold environments

## LOCATION

- Interior and exterior
- Above grade

## SUBSTRATE

- Most rigid building materials
- Treated and untreated lumber
- Brick
- Metal
- Concrete
- Masonry
- Plywood / OSB
- Fiberboard
- Cement board

**Technical Data**

**Composition**

MasterWeld 948 is a high-solids polyurethane elastomer that cures by reaction with atmospheric moisture.

**Compliances**

- Adhesive meets or exceeds all requirements of the American Plywood Association Specification AFG-01, Adhesive for Gluing Plywood to Wood Framing.
- FHA Bulletin UM-60
- ASTM D 3498

**Typical Properties**

PROPERTY	VALUE
<b>Viscosity, cps</b>	Up to 1,000,000
<b>Solids, %</b>	90
<b>Working or open time, hrs</b>	Up to 1
<b>Weight, lbs/gal (kg/L)</b>	10.8 (1.30)
<b>Flash point, ° F (° C)</b>	250 (121)
<b>Freeze/thaw stability</b>	Does not freeze
<b>Shrinkage</b>	None
<b>Service temperature, ° F (° C)</b>	Up to 250 (121)

**Test Data**

**LAP SHEAR**

PROPERTY	RESULTS PSI (MPA)	COMMENTS
<b>Chemlite to plywood</b>	341 (2.35)	Plywood failure
<b>Kynar to plywood</b>	340 (2.34)	MasterSeal P 173 on Kynar
<b>Texturuded polyurethane to plywood</b>	240 (1.65)	32 minutes tack time

**Test Data**

**ADHESIVE STRENGTH CHART**

SUBSTRATE	PSI (MPA)	
	<b>24 hrs</b>	<b>7 days</b>
<b>Plywood to Douglas fir</b>	541 (3.73)	858 (5.91)
<b>Plywood to treated lumber</b>	861 (5.93)	1,000 (6.89)
<b>Metal to Douglas fir</b>	313 (2.16)	313 (2.16)
<b>Foam to foam*</b>	37 (0.25)	37 (0.25)
<b>Oriented strandboard to Oriented strandboard (wet)</b>	354 (2.44)	544 (3.75)
<b>Wet Douglas fir to metal</b>	217 (1.50)	313 (2.16)
<b>Frozen Douglas fir to frozen Douglas fir</b>	360 (2.48)	828 (5.70)
<b>Plywood to F.R.P.</b>	100 (0.69)	222 (1.53)

Note: Average data is from 10 specimens. Wet lumber is from overnight soak.

\*Foam tears apart at 37 psi (0.25 MPa).

Test results are typical values obtained under laboratory conditions. Reasonable variations can be expected.

**HOW TO APPLY**

**SURFACE PREPARATION**

1. Surfaces must be structurally sound, dry, clean, and free of dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing or curing and parting compounds, and membrane materials.

**ON METAL SURFACES:**

Remove scale, rust or other coatings to expose a bright white surface.

**ON CONCRETE OR STONE, OR OTHER MASONRY SURFACES:**

Clean by grinding, sandblasting or wirebrushing to expose a sound surface free of contamination and laitance.

**ON WOOD SURFACES:**

The surface must be clean and sound. Scrape away paint to bare wood.

**PRIMING**

MasterWeld 948 bonds well to most substrates; however, it is the user's responsibility to check the adhesion of the cured adhesive on specific substrates. For further information, contact BASF Technical Services.

**APPLICATION**

1. Apply by caulking gun or trowel.
2. Wearing gloves during application is highly recommended. Once material has cured it cannot be removed.
3. Because of the high strength provided by MasterWeld 948 adhesive, do not apply it as heavily as you would a conventional adhesive. Cut the smallest possible opening in the spout to render the appropriate-sized bead. Be certain to fill all gaps between materials.
4. Materials may be repositioned without loss of adhesive strength up to one hour after application.
5. When necessary use mechanical fasteners to hold materials in place until adhesive has fully cured.



## Yield

BEAD SIZE IN (MM)	LINEAL FT/GAL (M/L)
<b>1/8 (3)</b>	1,569 (126.2)
<b>3/16 (5)</b>	697 (56)
<b>1/4 (6)</b>	392 (31.5)
<b>5/16 (8)</b>	251 (20.2)
<b>3/8 (10)</b>	174 (14)

### CURING

MasterWeld 948 forms a firm set in 1 - 2 hours, and a tenacious bond overnight. Cure time varies with temperature, humidity, and the porosity of the materials joined.

### CLEAN UP

Clean all tools and equipment immediately after use with a dry cloth; Xylene, mineral spirits or acetone may also be used. Cured material must be mechanically removed.

### FOR BEST PERFORMANCE

- Wear gloves during application of adhesive; once cured, material cannot be removed.
- Not intended for applications with continuous submersion.
- If adhesion to a substrate is questionable, a test application must be conducted.
- Make certain the most current versions of product data sheet and SDS are being used; call Customer Service (1-800-433-9517) to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

### HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting [www.master-builders-solutions.basf.us](http://www.master-builders-solutions.basf.us), e-mailing your request to [basfbcst@basf.com](mailto:basfbcst@basf.com) or calling 1(800)433-9517. Use only as directed.

**For medical emergencies only,  
call ChemTrec® 1(800)424-9300.**

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