

## MATERIAL SAFETY DATA SHEET

**Company Name:** AKZO NOBEL  
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**Vendor Update:** 12/14/2010  
**Date Prepared:** 12/21/2010  
**MSDS Number:** LN601 ;

### I. CHEMICAL PRODUCT IDENTIFICATION

**Product Name:** LIQUID NAILS ADHESIVE  
**HMIS Ratings:**  
**NFPA Ratings:**

### II. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Ingredients	C.A.S. Number	% By Weight	ACGIH TLV TWA/STEL	OSHA PEL TWA/STEL	Other TWA/STEL	LD50	LC50
LIMESTONE	1317-65-3	30 - 40	10 MG/M <sup>3</sup>	5 MG/M <sup>3</sup>		6450 MG/KG ORAL RAT	
<b>Notes</b>	CARCINOGENCITY LISTED BY: NTP: NO IARC: NO OSHA: NO ACGIH: NO						
KAOLIN (CLAY)	1332-58-7	5 - 10	2 MG/M <sup>3</sup>	5 MG/M <sup>3</sup>			
<b>Notes</b>	CARCINOGENCITY LISTED BY: NTP: NO IARC: NO OSHA: NO ACGIH: NO						
QUARTZ	14808-60-7	0.1 - 1.0	0.025 MG/M <sup>3</sup>	0.1 MG/M <sup>3</sup>			
<b>Notes</b>	CARCINOGENCITY LISTED BY: NTP: YES IARC: YES 1 OSHA: NO ACGIH: YES A2						
ACRYLIC RESIN	CONFIDENTIAL	10 - 20					
<b>Notes</b>							
1,2-ETHANEDIOL	107-21-1	0.1 - 1.0					
<b>Notes</b>							
ETHANOL, 2,2'-OXYBIS-, DIBENZOATE	120-55-8	1 - 5				2830.00 MG/KG ORAL RAT	
<b>Notes</b>	CARCINOGENCITY LISTED BY: NTP: NO IARC: NO OSHA: NO ACGIH: NO						
TITANIUM OXIDE	1332-58-7	0.1 - 1.0	10 MG/M <sup>3</sup>	10 MG/M <sup>3</sup>		24.00 GM/KG ORAL RAT	6820.00 MG/M3/4HR IHL RAT
<b>Notes</b>	CARCINOGENCITY LISTED BY: NTP: YES 2B						

	IARC: YES 2B OSHA: NO ACGIH: NO						
CRISTOBALITE	14464-46-1	0.1 – 1.0	0.025 MG/M <sup>3</sup>	0.05 MG/M <sup>3</sup>			
<i>Notes</i>	CARCINOGENCITY LISTED BY: NTP: YES IARC: YES 1 OSHA: NO ACGIH: YES A2						
WATER	7732-18-5	30 – 40					
<i>Notes</i>							

### III. HAZARDS IDENTIFICATION PRIMARY ROUTE OF ENTRY

<b>Eyes:</b>	IRRITATION OF EYES. PROLONGED OR REPEATED CONTACT CAN CAUSE TEARING OF EYES, REDNESS OF EYES.
<b>Skin:</b>	IRRITATION OF SKIN.
<b>Ingestion:</b>	INGESTION MAY CAUSE MOUTH AND THROAT IRRITATION, HEADACHE NAUSEA, VOMITING, GASTRO-INTESTINAL DISTURBANCES, ABDOMINAL PAIN, INTOXICATION, DIFFICULTY OF BREATHING, CARDIAC ABNORMALITIES, BLOOD ABNORMALITIES, KIDNEY DAMAGE, CONVULSIONS, CYANOSIS, BRAIN DAMAGE, CHEST EFFECTS.
<b>Inhalation:</b>	IRRITATION OF THE RESPIRATORY TRACT. PROLONGED INHALATION MAY HEADACHE, NAUSEA, PNEUMOCONIOSIS.
<b>Signs and Symptoms of Exposure:</b>	

### IV. FIRST AID MEASURES

<b>Eyes:</b>	FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER, ESPECIALLY UNDER LIDS FOR AT LEAST 15 MINUTES. IF IRRITATION OR OTHER EFFECTS PERSIST, OBTAIN MEDICAL TREATMENT.
<b>Skin:</b>	WASH THOROUGHLY WITH SOAP AND WATER. IF ANY PRODUCT REMAINS, GENTLY RUB PETROLEUM JELLY, VEGETABLE OR MINERAL/BABY OIL ONTO SKIN. REPEATED APPLICATIONS MAY BE NEEDED. REMOVE CONTAMINATED CLOTHING. WASH CONTAMINATED CLOTHING BEFORE RE-USE.
<b>Ingestion:</b>	IF SWALLOWED, OBTAIN MEDICAL TREATMENT IMMEDIATELY.
<b>Inhalation:</b>	REMOVE TO FRESH AIR. RESTORE AND SUPPORT CONTINUED BREATHING. GET EMERGENCY MEDICAL ATTENTION. HAVE TRAINED PERSON GIVE OXYGEN IF NECESSARY. GET MEDICAL HELP FOR ANY BREATHING DIFFICULTY.

### V. FIRE FIGHTING MEASURES

<b>Flash Point:</b>	ABOVE 200° F (93° C)
<b>Lower Flammability Limit:</b>	NOT AVAILABLE
<b>Upper Flammability Limit:</b>	NOT AVAILABLE
<b>Extinguishing Agents:</b>	DRY CHEMICAL OR FOAM, WATER FOG, CARBON DIOXIDE.

**Unusual Fire or Explosion Hazards:** CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT OR FIRE.

**Fire Fighting Procedures:** WATER MAY BE USED TO COOL AND PROTECT EXPOSED CONTAINERS. FIREFIGHTERS SHOULD USE FULL PROTECTIVE CLOTHING, EYE PROTECTION, AND SELF-CONTAINED BREATHING APPARATUS.

**Other:** HAZARDOUS DECOMPOSITION OR COMBUSTION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, ACRYLIC MONOMERS, OXIDES OF CALCIUM.

#### VI. ACCIDENTAL RELEASE MEASURES

**Containment/Cleanup:** COMPLY WITH ALL APPLICABLE HEALTH AND ENVIRONMENTAL REGULATIONS. VENTILATE AREA. PLACE COLLECTED MATERIAL IN PROPER CONTAINER. SPILLED MATERIAL IS EXTREMELY SLIPPERY.

#### VII. HANDLING AND STORAGE

**Other:** STORE BELOW 100°F (38°C). KEEP FROM FREEZING.  
OTHER PRECAUTIONS: USE ONLY WITH ADEQUATE VENTILATION. DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN. AVOID CONTACT WITH SKIN AND EYES, AND BREATHING OF VAPOURS. WASH HANDS THOROUGHLY AFTER HANDLING, ESPECIALLY BEFORE EATING OR SMOKING. KEEP CONTAINERS TIGHTLY CLOSED AND UPRIGHT WHEN NOT IN USE.

#### VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiratory:** CONTROL ENVIRONMENTAL CONCENTRATIONS BELOW APPLICABLE EXPOSURE STANDARDS WHEN USING THIS MATERIAL. WHEN RESPIRATORY PROTECTION IS DETERMINED TO BE NECESSARY, USE A NIOSH/MSHA (CANADIAN Z94.4) APPROVED ELASTOMERIC SEALING-SURFACE FACEPIECE RESPIRATOR OUTFITTED WITH ORGANIC VAPOR CARTRIDGES AND PAINT SPRAY (DUST/MIST) PREFILTERS. DETERMINE THE PROPER LEVEL OF PROTECTION BY CONDUCTING APPROPRIATE AIR MONITORING. CONSULT 29 CFR 1910.134 FOR SELECTION OF RESPIRATORS (CANADIAN Z94.4).

**Engineering:** PROVIDE DILUTION VENTILATION OR LOCAL EXHAUST TO PREVENT BUILD-UP OF VAPORS.

**Other:** PERSONAL PROTECTIVE EQUIPMENT: EYE WASH, SAFETY SHOWERS, SAFETY GLASSES OR GOGGLES. IMPERVIOUS GLOVES, IMPERVIOUS CLOTHING.

#### IX. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** WHITE

**Boiling Point:** NOT AVAILABLE

**pH:** 9.50

**Solubility in Water:** YES

**Specific Gravity:** 1.456

**Vapor Pressure:** NOT AVAILABLE

**Physical State:** PASTE

**Volatile Content:** % VOLATILE BY VOLUME: 59.32

**Other:** WEIGHT PER GALLON: 12.13/14.57 IMP

#### X. STABILITY AND REACTIVITY

**Stability:** STABLE

**Hazardous Polymerization:** WILL NOT OCCUR

**Hazardous Decomposition Products:** CARBON MONOXIDE, CARBON DIOXIDE, ACRID FUMES, FORMALDEHYDE, OXIDES OF SULFUR, TOXIC GASES, SMOKE AND SOOT. OXIDES OF CALCIUM.

**Incompatible Products:** OXIDIZERS, ACIDS, AMMONIUM SALTS, STYRENE MONOMER.

**Conditions To Avoid:** FREEZING, SPARKS, OPEN FLAME, IGNITION SOURCES.

#### XI. TOXICOLOGICAL INFORMATION

**Special Hazard Information:** CONTAINS CRYSTALLINE SILICA WHICH IS CONSIDERED A HAZARD BY INHALATION. IARC HAS CLASSIFIED CRYSTALLINE SILICA AS CARCINOGENIC TO HUMANS (GROUP 1). CRYSTALLINE SILICA IS ALSO A KNOWN CAUSE OF SILICOSIS, A NONCANCEROUS LUNG DISEASE. THE NATIONAL TOXICOLOGY PROGRAM (NTP) HAS CLASSIFIED CRYSTALLINE SILICA AS A KNOWN HUMAN CARCINOGEN. IN A LIFETIME INHALATION STUDY, EXPOSURE TO 250 MG/M<sup>3</sup> TITANIUM DIOXIDE RESULTED IN THE DEVELOPMENT OF LUNG TUMORS IN RATS. THESE TUMORS OCCURRED ONLY AT DUST LEVELS THAT OVERWHELMED THE ANIMALS' LUNG CLEARANCE MECHANISMS AND WERE DIFFERENT FROM COMMON HUMAN LUNG TUMORS IN BOTH TYPE AND LOCATION. THE RELEVANCE OF THESE FINDINGS TO HUMANS IS UNKNOWN BUT QUESTIONABLE. THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) HAS CLASSIFIED TITANIUM DIOXIDE AS POSSIBLY CARCINOGENIC TO HUMANS (GROUP 2B) BASED ON INADEQUATE EVIDENCE OF CARCINOGENICITY IN EXPERIMENTAL ANIMALS.

REPRODUCTIVE EFFECTS: NO REPRODUCTIVE EFFECTS ARE ANTICIPATED.  
MUTAGENICITY: NO MUTAGENIC EFFECTS ARE ANTICIPATED.  
TERATOGENICITY: NO TERATOGENIC EFFECTS ARE ANTICIPATED.

#### XII. ECOLOGICAL INFORMATION

**Environmental Fate and Distribution:** NO ECOLOGICAL TESTING HAS BEEN DONE ON THIS PRODUCT AS A WHOLE.

#### XIII. DISPOSAL CONSIDERATIONS

**Disposal Method:** DISPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

#### XIV. TRANSPORT INFORMATION

**Other:** IMDG: NOT AVAILABLE  
IATA: NOT AVAILABLE  
TDG: NOT AVAILABLE.

#### XV. REGULATORY INFORMATION

**TSCA Status:** AS OF THE DATE OF THIS MSDS, ALL OF THE COMPONENTS IN THIS PRODUCT ARE LISTED (OR ARE OTHERWISE EXEMPT FROM LISTING) ON THE TSCA INVENTORY.

**EPA Sara Title III Chemical Listings:** SARA SECTION 302, 313: NO

**Other:** THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR (CONTROLLED PRODUCTS REGULATIONS) AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

#### XVI. OTHER INFORMATION

**WARRANTY INFORMATION**

THIS INFORMATION IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.