

MSDS for: LN-601

Revised: 9-Feb-2009

**SECTION 1:**

PRODUCT IDENTIFIER: LN-601 PROJECT & CONSTRUCTION ADHESIVE  
DATE OF PREPARATION: JANUARY 9, 2008  
PRODUCT USE: ADHESIVE  
MANUFACTURED BY: AKZO NOBEL  
15885 WEST SPRAGUE ROAD  
STRONGSVILLE, OHIO 44136, U.S.A.  
  
AKZO NOBEL (CANADA)  
8200 KEELE STREET  
CONCORD, ONTARIO L4K 2A5, CANADA

EMERGENCY AND MSDS TELEPHONE NUMBER: 1-800-545-2643

MSDS PREPARED BY: PRODUCT SAFETY AND COMPLIANCE DEPARTMENT  
AKZO NOBEL NORTH AMERICA

**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

INGREDIENT	WT %
CHEMICAL NAME: CYCLOHEXANE COMMON NAME: CYCLOHEXANE CAS NUMBER: 110-82-7	1-5
CHEMICAL NAME: LIMESTONE COMMON NAME: LIMESTONE CAS NUMBER: 1317-65-3	10-20
CHEMICAL NAME: KAOLIN COMMON NAME: CLAY CAS NUMBER: 1332-58-7	30-40
CHEMICAL NAME: TITANIUM OXIDE COMMON NAME: TITANIUM DIOXIDE CAS NUMBER: 13463-67-7	0.1-1.0
CHEMICAL NAME: HEPTANE COMMON NAME: HEPTANE CAS NUMBER: 142-82-5	5-10
CHEMICAL NAME: CRISTOBALITE COMMON NAME: CRYSTALLINE SILICA, CRISTOBALITE CAS NUMBER: 14464-46-1	0.1-1.0
CHEMICAL NAME: QUARTZ COMMON NAME: QUARTZ CAS NUMBER: 14808-60-7	1-5
CHEMICAL NAME: BENZENE, 1,3-DIETHENYL-, POLYMER WITH 1,3-BUTADIENE AND ETHENYLBENZENE COMMON NAME: STYRENE-BUTADIENE POLYMER CAS NUMBER: 26471-45-4	1-5

CHEMICAL NAME:	HEPTANE, BRANCHED, CYCLIC AND LINEAR	1-5
COMMON NAME:	HEPTANE, BRANCHED, CYCLIC AND LINEAR	
CAS NUMBER:	426260-76-6	
CHEMICAL NAME:	PETROLEUM RESINS	10-20
COMMON NAME:	PETROLEUM HYDROCARBON RESIN	
CAS NUMBER:	64742-16-1	
CHEMICAL NAME:	SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	10-20
COMMON NAME:	LIGHT ALIPHATIC SOLVENT NAPHTHA (PETROLEUM)	
CAS NUMBER:	64742-89-8	
CHEMICAL NAME:	DISTILLATES, PETROLEUM, LIGHT DISTILLATE	5-10
COMMON NAME:	HYDROTREAT PROCESS, LOW-BOILING	
CAS NUMBER:	HYDROTREATED LIGHT DISTILLATE	
CHEMICAL NAME:	68410-97-9	
CHEMICAL NAME:	BENZENE, ETHENYL-, POLYMER WITH 1,3-BUTADIENE	1-5
COMMON NAME:	STYRENE-BUTADIENE POLYMER	
CAS NUMBER:	9003-55-8	

### SECTION 3: HAZARDS IDENTIFICATION

PRIMARY ROUTE(S) OF EXPOSURE: INHALATION, SKIN CONTACT, EYE CONTACT, INGESTION

#### EFFECTS OF OVEREXPOSURE

INHALATION:	IRRITATION OF RESPIRATORY TRACT. PROLONGED INHALATION MAY LEAD TO LOSS OF APPETITE, FATIGUE, DROWSINESS, DIZZINESS AND/OR LIGHTHEADEDNESS, HEADACHE, UNCOORDINATION, NAUSEA, VOMITING, DIARRHEA, COUGHING, CENTRAL NERVOUS SYSTEM DEPRESSION, INTOXICATION, ANESTHETIC EFFECT OR NARCOSIS, DIFFICULTY OF BREATHING, CONVULSIONS, PNEUMOCONIOSIS, LOSS OF CONSCIOUSNESS, ASPHYXIATION.
SKIN CONTACT:	IRRITATION OF SKIN. MAY CAUSE SKIN IRRITATION. PROLONGED OR REPEATED CONTACT CAN CAUSE DERMATITIS, DEFATTING, SEVERE SKIN IRRITATION OR BURNS.
EYE CONTACT:	IRRITATION OF EYES. PROLONGED OR REPEATED CONTACT CAN CAUSE CONJUNCTIVITIS, BLURRED VISION, TEARING OF EYES, REDNESS OF EYES, SEVERE EYE IRRITATION, SEVERE EYE IRRITATION OR BURNS.
INGESTION:	INGESTION MAY CAUSE LUNG INFLAMMATION AND DAMAGE DUE TO ASPIRATION OF MATERIAL INTO LUNGS, FATIGUE, DROWSINESS, DIZZINESS AND/OR LIGHTHEADEDNESS, HEADACHE, UNCOORDINATION, NAUSEA, VOMITING, DIARRHEA, GASTRO-INTESTINAL DISTURBANCES, ABDOMINAL PAIN, CENTRAL NERVOUS SYSTEM DEPRESSION, RESPIRATORY PROBLEMS, INTOXICATION, DIFFICULTY OF BREATHING, PULMONARY EDEMA, CONVULSIONS, LOSS OF CONSCIOUSNESS.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:**

EYE, SKIN, RESPIRATORY DISORDERS, LUNG DISORDERS, CARDIAC ABNORMALITIES, RESPIRATORY DISORDERS, SKIN DISORDERS

**SECTION 4: FIRST-AID MEASURES**

- INHALATION:** 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.
- SKIN CONTACT:** 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.
- EYE CONTACT:** FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER, ESPECIALLY UNDER LIDS FOR AT LEAST 15 MINUTES. IF IRRITATION OR OTHER EFFECTS PERSIST, OBTAIN MEDICAL TREATMENT.
- INGESTION:** IF SWALLOWED, OBTAIN MEDICAL TREATMENT IMMEDIATELY.

**SECTION 5: FIRE-FIGHTING MEASURES**

FLASH POINT (SETA): 4 F./ -16 C.                      LOWER EXPLOSIVE LIMIT: 1.2 (%)  
UPPER EXPLOSIVE LIMIT: 6.7 (%)

FIRE EXTINGUISHING MEDIA: DRY CHEMICAL OR FOAM , WATER FOG., CARBON DIOXIDE

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT OR FIRE. VAPORS MAY IGNITE EXPLOSIVELY AT AMBIENT TEMPERATURES. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL LONG DISTANCES TO A SOURCE OF IGNITION AND FLASH BACK. VAPORS CAN FORM EXPLOSIVE MIXTURES IN AIR AT ELEVATED TEMPERATURES. CLOSED CONTAINERS MAY BURST IF EXPOSED TO EXTREME HEAT OR FIRE MAY DECOMPOSE UNDER FIRE CONDITIONS EMITTING IRRITANT AND/OR TOXIC GASES.

**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.

**HAZARDOUS DECOMPOSITION OR COMBUSTION PRODUCTS:**

CARBON MONOXIDE, CARBON DIOXIDE, ACROLEIN, METHANE, ALDEHYDES, TOXIC GASES, OXIDES OF CALCIUM, KETONES

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

COMPLY WITH ALL APPLICABLE HEALTH AND ENVIRONMENTAL REGULATIONS. ELIMINATE ALL SOURCES OF IGNITION. VENTILATE AREA WITH EXPLOSION-PROOF EQUIPMENT. SPILLS MAY BE COLLECTED WITH ABSORBENT MATERIALS. USE NON-SPARKING TOOLS. EVACUATE ALL UNNECESSARY PERSONNEL. PLACE COLLECTED MATERIAL IN PROPER CONTAINER. WET DOWN SPILLED MATERIAL WITH WATER. COMPLETE PERSONAL PROTECTIVE EQUIPMENT MUST BE USED DURING CLEANUP.

LARGE SPILLS: SHUT OFF LEAK IF SAFE TO DO SO. DIKE AND CONTAIN SPILL. PUMP TO STORAGE OR SALVAGE VESSELS. USE ABSORBENT TO PICK UP EXCESS RESIDUE. KEEP SALVAGEABLE MATERIAL AND RINSE WATER OUT OF SEWERS AND WATER COURSES.

SMALL SPILLS: USE ABSORBENT TO PICK UP RESIDUE AND DISPOSE OF PROPERLY.

## SECTION 7: HANDLING AND STORAGE

STORE BELOW 80F. KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME.

### 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 VAPORS. WASH HANDS THOROUGHLY AFTER HANDLING, ESPECIALLY BEFORE EATING OR SMOKING. KEEP CONTAINERS TIGHTLY CLOSED AND UPRIGHT WHEN NOT IN USE. AVOID CONDITIONS WHICH RESULT IN FORMATION OF INHALABLE PARTICLES SUCH AS SPRAYING OR ABRADING (SANDING) PAINTED SURFACES. IF SUCH CONDITIONS CANNOT BE AVOIDED, USE APPROPRIATE RESPIRATORY PROTECTION AS DIRECTED UNDER EXPOSURE CONTROLS/PERSONAL PROTECTION. EMPTY CONTAINERS MAY CONTAIN HAZARDOUS RESIDUES. GROUND EQUIPMENT WHEN TRANSFERRING TO PREVENT ACCUMULATION OF STATIC CHARGE.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

COMMON NAME:	CYCLOHEXANE		
CAS NUMBER:	110-82-7		
ACGIH(TWA):	100 PPM	OSHA(TWA):	300 PPM
COMMON NAME:	LIMESTONE		
CAS NUMBER:	1317-65-3		
ACGIH(TWA):	10 MG/M3	OSHA(TWA):	5 MG/M3
COMMON NAME:	CLAY		
CAS NUMBER:	1332-58-7		
ACGIH(TWA):	2 MG/M3	OSHA(TWA):	5 MG/M3
COMMON NAME:	TITANIUM DIOXIDE		
CAS NUMBER:	13463-67-7		
ACGIH(TWA):	10 MG/M3	OSHA(TWA):	10 MG/M3

COMMON NAME: HEPTANE  
CAS NUMBER: 142-82-5  
ACGIH(TWA): 400 PPM OSHA(TWA): 500 PPM  
ACGIH(STEL): 500 PPM

COMMON NAME: CRYSTALLINE SILICA, CRISTOBALITE  
CAS NUMBER: 14464-46-1  
ACGIH(TWA): 0.025 MG/M3 OSHA(TWA): 0.05 MG/M3

COMMON NAME: QUARTZ  
CAS NUMBER: 14808-60-7  
ACGIH(TWA): 0.025 MG/M3 OSHA(TWA): 0.1 MG/M3

COMMON NAME: PETROLEUM HYDROCARBON RESIN  
CAS NUMBER: 64742-16-1  
ACGIH(TWA): 10 MG/M3 OSHA(TWA): 15 MG/M3

COMMON NAME: LIGHT ALIPHATIC SOLVENT NAPHTHA (PETROLEUM)  
CAS NUMBER: 64742-89-8  
OSHA(TWA): 300 PPM

COMMON NAME: HYDROTREATED LIGHT DISTILLATE  
CAS NUMBER: 68410-97-9  
OSHA(TWA): 500 PPM

#### RESPIRATORY PROTECTION

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 29CFR1910.134 FOR SELECTION OF RESPIRATORS (CANADIAN Z94.4).

VENTILATION: PROVIDE DILUTION VENTILATION OR LOCAL EXHAUST TO PREVENT BUILD-UP OF VAPORS. USE EXPLOSION-PROOF EQUIPMENT. USE NON-SPARKING EQUIPMENT.

#### PERSONAL PROTECTIVE EQUIPMENT:

EYE WASH, SAFETY SHOWER, SAFETY GLASSES OR GOGGLES,  
IMPERVIOUS GLOVES, IMPERVIOUS CLOTHING, FACE SHIELD

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE:	NOT AVAILABLE	SPECIFIC GRAVITY:	1.171
BOILING RANGE (F/C):	182-220/ 83-104	WEIGHT PER GALLON:	9.75 / 11.71 IMP
%VOLATILE BY VOLUME:	56.99	APPEARANCE:	TAN
PHYSICAL STATE:	PASTE	PH:	N/A
SOLUBILITY IN WATER:	NO		

**SECTION 10: STABILITY AND REACTIVITY**

UNDER NORMAL CONDITIONS: STABLE (SEE SECTION 5 FIRE FIGHTING MEASURES)

MATERIALS TO AVOID: OXIDIZERS, ACIDS, HALOGENS, AMMONIUM SALTS,  
PEROXIDES, STYRENE MONOMER

CONDITIONS TO AVOID:

ELEVATED TEMPERATURES, CONTACT WITH OXIDIZING AGENT, SPARKS, OPEN  
FLAME, IGNITION SOURCES

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

**SECTION 11: TOXICOLOGICAL INFORMATION**

COMMON NAME: CYCLOHEXANE  
CAS NUMBER: 110-82-7  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO  
LD50: > 180.00 GM/KG SKN RBT  
LD50: 12.70 GM/KG ORL RAT  
LC50: 70.00 PPM IHL MAM

COMMON NAME: LIMESTONE  
CAS NUMBER: 1317-65-3  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO  
LD50: 6450.00 MG/KG ORL RAT

COMMON NAME: CLAY  
CAS NUMBER: 1332-58-7  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO

COMMON NAME: TITANIUM DIOXIDE  
CAS NUMBER: 13463-67-7  
CARCINOGENICITY LISTED BY: NTP YES 2B IARC YES 2B OSHA NO ACGIH NO  
LD50: 24.00 GM/KG ORL RAT  
LC50: 6820.00 MG/M3/4HR IHL RAT

COMMON NAME: HEPTANE  
CAS NUMBER: 142-82-5  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO  
LD50: 222.00 MG/KG IVN MOU

COMMON NAME: CRYSTALLINE SILICA, CRISTOBALITE  
CAS NUMBER: 14464-46-1  
CARCINOGENICITY LISTED BY: NTP YES IARC YES 1 OSHA NO ACGIH YES A2

COMMON NAME: QUARTZ  
CAS NUMBER: 14808-60-7  
CARCINOGENICITY LISTED BY: NTP YES IARC YES 1 OSHA NO ACGIH YES A2

COMMON NAME: HEPTANE, BRANCHED, CYCLIC AND LINEAR  
CAS NUMBER: 426260-76-6  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO

COMMON NAME: PETROLEUM HYDROCARBON RESIN  
CAS NUMBER: 64742-16-1  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO  
LD50: 7.00 GM/KG ORL MAM

COMMON NAME: LIGHT ALIPHATIC SOLVENT NAPHTHA (PETROLEUM)  
CAS NUMBER: 64742-89-8  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO  
LD50: > 3.16 GM/KG SKN RBT  
LD50: > 5.00 GM/KG ORL RAT

COMMON NAME: HYDROTREATED LIGHT DISTILLATE  
CAS NUMBER: 68410-97-9  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO

COMMON NAME: STYRENE-BUTADIENE POLYMER  
CAS NUMBER: 9003-55-8  
CARCINOGENICITY LISTED BY: NTP NO IARC YES 3 OSHA NO ACGIH NO

#### SUPPLEMENTAL HEALTH INFORMATION

CONTAINS A CHEMICAL THAT MAY BE ABSORBED THROUGH SKIN.

NOTICE - REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL. OTHER EFFECTS OF OVEREXPOSURE MAY INCLUDE TOXICITY TO CENTRAL NERVOUS SYSTEM.

CARCINOGENICITY: 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/M3 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 HUMANS AND SUFFICIENT 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

**SECTION 12: ECOLOGICAL INFORMATION**

A NO ECOLOGICAL TESTING HAS BEEN DONE BY AKZO NOBEL ON THIS PRODUCT AS WHOLE.

**SECTION 13: DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL: DISPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. AVOID DISCHARGE TO NATURAL WATERS.

**SECTION 14: TRANSPORT INFORMATION**

DOT: UN1133, ADHESIVES, 3, PGIII,ERG 128  
IMDG: UN1133, ADHESIVES, CLASS 3, PG III,LTD QTY, (IMDG 3.4.7,2.3.2.3) ERG128, UN1133, ADHESIVES, CLASS 3, PG III  
IATA: ID8000, CONSUMER COMMODITY, 9  
TDG: NOT AVAILABLE

**SECTION 15: REGULATORY INFORMATION**

	SARA 302	SARA 313	CERCLA 302.4	HAZ AIR POLLUTANT	MARINE POLTNT
CAS NUMBER: 110-82-7	NO	YES	YES	NO	NO
COMMON NAME: CYCLOHEXANE					

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. 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.

**SECTION 16: OTHER INFORMATION**

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE AT THE TIME OF PREPARATION OF THIS DATA SHEET AND WHICH AKZO NOBEL BELIEVES TO BE RELIABLE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA. AKZO NOBEL 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.