

MSDS for: LN-930

Revised: 9-Feb-2009

SECTION 1:

PRODUCT IDENTIFIER: LN-930 LIQUID NAILS ADHESIVE FOR MIRRORS
DATE OF PREPARATION: JANUARY 29, 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: LIMESTONE COMMON NAME: LIMESTONE CAS NUMBER: 1317-65-3 | 40-50 |
| CHEMICAL NAME: KAOLIN COMMON NAME: CLAY CAS NUMBER: 1332-58-7 | 10-20 |
| 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 | 1-5 |
| 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 | 5-10 |

| | | |
|----------------|---|-------|
| CHEMICAL NAME: | HEAVY NAPHTHENIC DISTILLATE, SEVERELY HYDROTREATED* | 1-5 |
| COMMON NAME: | PETROLEUM HYDROCARBON | |
| CAS NUMBER: | 64742-52-5* | |
| CHEMICAL NAME: | SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC | 5-10 |
| COMMON NAME: | LIGHT ALIPHATIC SOLVENT NAPHTHA (PETROLEUM) | |
| CAS NUMBER: | 64742-89-8 | |
| CHEMICAL NAME: | 2-PROPANONE | 1-5 |
| COMMON NAME: | ACETONE | |
| CAS NUMBER: | 67-64-1 | |
| CHEMICAL NAME: | ALKENES, ETHYLENE-MANUF.-BY-PRODUCT PIPERYLENE-CUT, POLYMERS WITH STEAM-CRACKED PETROLEUM DISTILLATES | 10-20 |
| COMMON NAME: | RESIN | |
| CAS NUMBER: | 68131-89-5 | |

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, MUCOUS MEMBRANE IRRITATION, FATIGUE, DROWSINESS, DIZZINESS AND/OR LIGHTHEADEDNESS, HEADACHE, UNCOORDINATION, NAUSEA, VOMITING, ABDOMINAL PAIN, SORE THROAT, COUGHING, DIFFICULTY WITH SPEECH, CENTRAL NERVOUS SYSTEM DEPRESSION, INTOXICATION, ANESTHETIC EFFECT OR NARCOSIS, DIFFICULTY OF BREATHING, BLOOD ABNORMALITIES, LIVER DAMAGE, KIDNEY DAMAGE, PNEUMOCONIOSIS, LOSS OF CONSCIOUSNESS, ASPHYXIATION. |
| SKIN CONTACT: | IRRITATION OF SKIN. PROLONGED OR REPEATED CONTACT CAN CAUSE DERMATITIS, DEFATTING. |
| EYE CONTACT: | IRRITATION OF EYES. PROLONGED OR REPEATED CONTACT CAN CAUSE CONJUNCTIVITIS, BLURRED VISION, TEARING OF EYES, REDNESS OF EYES, SEVERE EYE IRRITATION. |
| INGESTION: | INGESTION MAY CAUSE LUNG INFLAMMATION AND DAMAGE DUE TO ASPIRATION OF MATERIAL INTO LUNGS, MUCOUS MEMBRANE IRRITATION, DIZZINESS AND/OR LIGHTHEADEDNESS, HEADACHE, UNCOORDINATION, NAUSEA, VOMITING, DIARRHEA, GASTRO- INTESTINAL DISTURBANCES, ABDOMINAL PAIN, COUGHING, CENTRAL NERVOUS SYSTEM DEPRESSION, INTOXICATION, DIFFICULTY OF BREATHING, PULMONARY EDEMA, CYANOSIS. |

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

EYE, SKIN, RESPIRATORY DISORDERS, LUNG DISORDERS, RESPIRATORY 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): 1 F./ -17 C. **LOWER EXPLOSIVE LIMIT:** 1.2 %
UPPER EXPLOSIVE LIMIT: 8.2 %

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. 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, OXIDES OF SULFUR, ALDEHYDES, TOXIC GASES, OXIDES OF CALCIUM, SMOKE

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: | 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
CAS NUMBER: 64742-52-5*
ACGIH(TWA): 5 MG/M3 OSHA(TWA): 5 MG/M3
ACGIH(STEL): 10 MG/M3

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

COMMON NAME: ACETONE
CAS NUMBER: 67-64-1
ACGIH(TWA): 500 PPM OSHA(TWA): 1000 PPM
ACGIH(STEL): 750 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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|----------------------|-----------------|----------------------|-----------------|
| VAPOR PRESSURE: | NOT AVAILABLE | SPECIFIC GRAVITY: | 1.438 |
| BOILING RANGE (F/C): | 133-220/ 56-104 | WEIGHT PER GALLON: | 11.98/14.39 IMP |
| APPEARANCE: | TAN | %VOLATILE BY VOLUME: | 32.04 |
| PHYSICAL STATE: | PASTE | SOLUBLE IN WATER: | NO |
| PH: | N/A | | |

SECTION 10: STABILITY AND REACTIVITY

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

MATERIALS TO AVOID: OXIDIZERS, ACIDS, BASES, AMINES, AMMONIUM SALTS,
PEROXIDES, NITRIC ACID, 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: 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: PETROLEUM HYDROCARBON
CAS NUMBER: 64742-52-5*
CARCINOGENICITY LISTED BY: NTP NO IARC YES 3 OSHA NO ACGIH NO

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: ACETONE
CAS NUMBER: 67-64-1
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO
LD50: 5800.00 MG/KG ORL RAT
LD50: > 9400.00 MG/KG SKN GPG

COMMON NAME: RESIN
CAS NUMBER: 68131-89-5
CARCINOGENICITY LISTED BY: NTP NO IARC NO 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

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

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: DISPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

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

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: 67-64-1 COMMON NAME: ACETONE | NO | NO | YES | NO | NO |

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.