

**MSDS for: LN-930**

**Revised: 24-May-2005**

**SECTION 1:**

PRODUCT IDENTIFIER: LN-930 LIQUID NAILS ADHESIVE FOR MIRRORS  
DATE OF PREPARATION: JANUARY 20, 2004  
PRODUCT USE: ADHESIVE

MANUFACTURED BY: MACCO ADHESIVES  
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STRONGSVILLE, OHIO 44136, U.S.A.

ICI PAINTS (CANADA)  
8200 KEELE STREET  
CONCORD, ONTARIO L4K 2A5, CANADA

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

MSDS PREPARED BY: PRODUCT SAFETY AND TOXICOLOGY DEPARTMENT  
ICI PAINTS NORTH AMERICA

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

<b>INGREDIENT</b>	<b>WT.%</b>
CHEMICAL NAME: 2-METHYLPENTANE COMMON NAME: 2-METHYLPENTANE CAS NUMBER: 107-83-5	5-10
CHEMICAL NAME: LIMESTONE COMMON NAME: LIMESTONE CAS NUMBER: 1317-65-3	30-40
CHEMICAL NAME: KAOLI COMMON NAME: CLAY CAS NUMBER: 1332-58-7	20-30
CHEMICAL NAME: QUARTZ COMMON NAME: QUARTZ CAS NUMBER: 14808-60-7	0.1-1.0
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: DISTILLATES, PETROLEUM, HYDROTREATED HEAVY NAPHTHENIC COMMON NAME: PETROLEUM HYDROCARBON CAS NUMBER: 64742-52-5	1-5
CHEMICAL NAME: SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC COMMON NAME: LIGHT ALIPHATIC SOLVENT NAPHTHA (PETROLEUM) CAS NUMBER: 64742-89-8	1-5

CHEMICAL NAME:	DISTILLATES (PETROLEUM), STEAM-CRACKED, POLYMERS WITH LIGHT STEAM-CRACKED PETROLEUM NAPHTHA	10-20
COMMON NAME:	AROMATIC HYDROCARBON RESIN	
CAS NUMBER:	68410-16-2	
CHEMICAL NAME:	2,2-DIMETHYLBUTANE	1-5
COMMON NAME:	DIMETHYLBUTANE	
CAS NUMBER:	75-83-2	
CHEMICAL NAME:	2,3-DIMETHYLBUTANE	1-5
COMMON NAME:	DIMETHYLBUTANE	
CAS NUMBER:	79-29-8	
CHEMICAL NAME:	RESIN ACIDS AND ROSIN ACIDS, ESTERS WITH GLYCEROL	1-5
COMMON NAME:	ROSIN GLYCEROL ESTER	
CAS NUMBER:	8050-31-5	
CHEMICAL NAME:	BENZENE, ETHENYL-, POLYMER WITH 1,3-BUTADIENE	1-5
COMMON NAME:	STYRENE-BUTADIENE POLYMER	
CAS NUMBER:	9003-55-8	
CHEMICAL NAME:	3-METHYLPENTANE	1-5
COMMON NAME:	3-METHYL PENTANE	
CAS NUMBER:	96-14-0	

### 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 LIGHTEADEDNESS, HEADACHE, UNCOORDINATION, NAUSEA, VOMITING, SORE THROAT, COUGHING, CENTRAL NERVOUS SYSTEM DEPRESSION, INTOXICATION, ANESTHETIC EFFECT OR NARCOSIS, DIFFICULTY OF BREATHING, CONVULSIONS, PNEUMOCONIOSIS, LOSS OF CONSCIOUSNESS, DEATH.

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, CORNEAL INJURY.

INGESTION:                      INGESTION MAY CAUSE LUNG INFLAMMATION AND DAMAGE DUE TO ASPIRATION OF MATERIAL INTO LUNGS, DROWSINESS, DIZZINESS AND/OR LIGHTEADEDNESS, HEADACHE, UNCOORDINATION, NAUSEA, VOMITING, DIARRHEA, GASTRO-INTESTINAL DISTURBANCES, ABDOMINAL PAIN, COUGHING, CENTRAL NERVOUS SYSTEM DEPRESSION, INTOXICATION,

DIFFICULTY OF BREATHING, PULMONARY EDEMA, CONVULSIONS, PARALYSIS, CYANOSIS, CARDIAC FAILURE, DEATH.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

EYE, SKIN, RESPIRATORY DISORDERS, LUNG 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. REMOVE TO FRESH AIR IF INHALATION CAUSES EYE WATERING, HEADACHES, DIZZINESS, OR OTHER DISCOMFORT. GET MEDICAL ATTENTION IF DISCOMFORT OR IRRITATION PERSISTS.
- 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. IF IRRITATION OCCURS, CONSULT A PHYSICIAN.
- 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: 1.0 %  
UPPER EXPLOSIVE LIMIT NOT AVAILABLE

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, ACRID FUMES, FORMALDEHYDE, OXIDES OF SULFUR, OXIDES OF CALCIUM, ALDEHYDES, TOXIC GASES, SMOKE, AND SOOT.

## **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. VENTILATE AREA WITH EXPLOSION-PROOF EQUIPMENT. USE NON-SPARKING TOOLS. EVACUATE ALL UNNECESSARY PERSONNEL. PLACE COLLECTED MATERIAL IN PROPER CONTAINER. 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**

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. EMPTY CONTAINERS MAY CONTAIN HAZARDOUS RESIDUES. GROUND EQUIPMENT WHEN TRANSFERRING TO PREVENT ACCUMULATION OF STATIC CHARGE.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

COMMON NAME: 2-METHYLPENTANE  
CAS NUMBER: 107-83-5  
ACGIH(TWA): 500 PPM  
ACGIH(STEL): C 1000 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: QUARTZ  
CAS NUMBER: 14808-60-7  
ACGIH(TWA): 0.05 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: DIMETHYLBUTANE  
CAS NUMBER: 75-83-2  
ACGIH(TWA): 500 PPM  
ACGIH(STEL): 1000 PPM

COMMON NAME: DIMETHYLBUTANE  
CAS NUMBER: 79-29-8  
ACGIH(TWA): 500 PPM  
ACGIH(STEL): 1000 PPM

COMMON NAME: ROSIN GLYCEROL ESTER  
CAS NUMBER: 8050-31-5  
ACGIH(TWA): 5 MG/M3

COMMON NAME: 3-METHYL PENTANE  
CAS NUMBER: 96-14-0  
ACGIH(TWA): 500 PPM  
ACGIH(STEL): 1000 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:	1.389
BOILING RANGE (F/C):	122-122/ 50-50	WEIGHT PER GALLON:	11.57/ 13.89IMP
%VOLATILE BY VOLUME:	33.34	PHYSICAL STATE:	PASTE
APPEARANCE:	TAN	SOLUBLE IN WATER:	N
PH:	NOT APPLICABLE		

## SECTION 10: STABILITY AND REACTIVITY

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

MATERIALS TO AVOID: OXIDIZERS, ACIDS, BASES, 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: 2-METHYLPENTANE  
CAS NUMBER: 107-83-5  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO

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

COMMON NAME: PETROLEUM HYDROCARBON  
CAS NUMBER: 64742-52-5  
CARCINOGENICITY LISTED BY: NTP NO IARC YES 1 OSHA NO ACGIH NO  
LD50: > 2000.00 MG/KG SKN RBT

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: AROMATIC HYDROCARBON RESIN  
CAS NUMBER: 68410-16-2  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO

COMMON NAME: DIMETHYLBUTANE  
CAS NUMBER: 75-83-2  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO

COMMON NAME: DIMETHYLBUTANE  
CAS NUMBER: 79-29-8  
CARCINOGENICITY LISTED BY: NTP NO IARC NO OSHA NO ACGIH NO

COMMON NAME: ROSIN GLYCEROL ESTER  
CAS NUMBER: 8050-31-5  
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 NO OSHA NO ACGIH NO

COMMON NAME: 3-METHYL PENTANE  
CAS NUMBER: 96-14-0  
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.

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 ICI PAINTS ON THIS PRODUCT AS A WHOLE.

#### **SECTION 13: DISPOSAL CONSIDERATIONS**

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

#### **SECTION 14: TRANSPORT INFORMATION**

DOT: ADHESIVES, 3, UN1133, PGIII  
IMDG: ADHESIVES, CLASS 3, UN1133, PGIII, LIMITED QUANTITY  
IATA: CONSUMER COMMODITY, 9, ID8000  
TDG: NOT AVAILABLE

**SECTION 15: REGULATORY INFORMATION**

SARA	SARA	CERCLA	HAZ AIR	MARINE
302	313	302.4	POLLUTANT	POLTNT

THIS PRODUCT CONTAINS NO SARA 302, CERCLA 302.4 OR HAZARDOUS AIR POLLUTANT CHEMICALS. IT ALSO CONTAINS NO CHEMICALS WHICH ARE SUBJECT TO THE REPORTING REQUIREMENTS UNDER SARA 313. 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 ICI PAINTS BELIEVES TO BE RELIABLE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA. ICI PAINTS 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.