

MATERIAL SAFETY DATA SHEET

HMIS H3\* F3 R0

Date Prepared: 06/09/93  
Date Revised : 07/16/91

PREPARED FOR:

PREPARED BY:

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Information Number: (703)982-8301

SECTION I - PRODUCT INFORMATION

Tradename: NA	Product No. 830-70L1-1357	Customer Part No.
Product - Class:	W. W. REL-PLAZ	/A
DOT Code :	UN1263	

SECTION II - HAZARDOUS INGREDIENTS

Hazardous Ingredients	Ingredient Data
ISOBUTANOL (ISOBUTYL ALCOHOL) (2-METHYL-1-PROPANOL)	% by Weight 22.9 %   Cas No. 000078-83-1   Vapor Pres. 9.0@ 68F mm/Hg   TLV-TWA 50.0 ppm   PEL-TWA 50.0 ppm   ORAL-LD50 2460. mg/Kg RAT   DERM-LD50 4240. mg/Kg RABBIT
UREA-FORMALDEHYDE RESIN	% by Weight 8.7 %   Cas No. - -   Vapor Pres. NA   TLV-TWA NA   PEL-TWA NA
MIXED HYDROCARBON	% by Weight 8.0 %   Cas No. 064742-48-9   Vapor Pres. 11.0@ 68F mm/Hg   TLV-TWA 100.0 ppm   PEL-TWA 100.0 ppm
#TOLUENE (TOLUOL) (METHYL BENZENE)	% by Weight 7.9 %   Cas No. 000108-88-3   Vapor Pres. 22.0@ 68F mm/Hg   TLV-TWA 50.0 ppm*   PEL-TWA 100.0 ppm   PEL-STEL 150.0 ppm 15 MINUTES   ORAL-LD50 5000. mg/Kg RAT   DERM-LD50 14000. mg/Kg RABBIT

	inhalation	4000.	ppm	RAT-4 HOUR
ALIPHATIC SOLVENT	% by Weight	6.7 %		
	Cas No.	- -		
	Vapor Pres.	NA		
	TLV-TWA	NA		
	PEL-TWA	NA		
METHYLATED M/F RESIN	% by Weight	5.7 %		
	Cas No.	068002-20-0		
	Vapor Pres.	NA		
	TLV-TWA	NA		
	PEL-TWA	NA		
BUTYL ACETATE (ACETIC ACID, BUTYL ESTER) (BUTYL ETHANOATE)	% by Weight	5.0 %		
	Cas No.	000123-86-4		
	Vapor Pres.	8.0@ 68F	mm/Hg	
	TLV-TWA	150.0	ppm	
	PEL-TWA	150.0	ppm	
	TLV-STEL	200.0	ppm	15 MINUTES
	PEL-STEL	200.0	ppm	15 MINUTES
	ORAL-LD50	14000.	mg/Kg	RAT
	inhalation	2000.	ppm	RAT
XYLENE, MIXED ISOMERS	% by Weight	3.7 %		
	Cas No.	001330-20-7		
	Vapor Pres.	5.1@ 68F	mm/Hg	
	TLV-TWA	100.0	ppm	
	PEL-TWA	100.0	ppm	
	TLV-STEL	150.0	ppm	15 MINUTES
	PEL-STEL	150.0	ppm	15 MINUTES
	ORAL-LD50	4300.	mg/Kg	RAT
	inhalation	5000.	ppm	RAT-4 HOUR
METHYL ETHYL KETONE (MEK) (2-BUTANONE)	% by Weight	3.5 %		
	Cas No.	000078-93-3		
	Vapor Pres.	83.0@ 75F	mm/Hg	
	TLV-TWA	200.0	ppm	
	PEL-TWA	200.0	ppm	
	TLV-STEL	300.0	ppm	15 MINUTES
	PEL-STEL	300.0	ppm	15 MINUTES
	ORAL-LD50	2737.	mg/Kg	RAT
	DERM-LD50	13000.	mg/Kg	RABBIT
BUTANOL (BUTYL ALCOHOL)	% by Weight	3.0 %		
	Cas No.	000071-36-3		
	Vapor Pres.	5.5@ 68F	mm/Hg	
	TLV-TWA	NA		
	PEL-TWA	NA		
	TLV-CEIL	50.0	ppm*	
	PEL-CEIL	50.0	ppm*	
	ORAL-LD50	790.	mg/Kg	RAT
	DERM-LD50	3400.	mg/Kg	RABBIT
	inhalation	8000.	ppm	RAT-4 HOUR
FREE FORMALDEHYDE, MAXIMUM	% by Weight	.3 %		

Cas No.	000050-00-0		
Vapor Pres.	NA		
TLV-TWA	NA		
PEL-TWA	.7	ppm	
PEL-STEL	2.0	ppm	15 MINUTES
TLV-CEIL	.3	ppm	
ORAL-LD50	800.	mg/Kg	RAT
DERM-LD50	270.	mg/Kg	RABBIT
inhalation	590.	mg/m3	RAT

\* This material is subject to reporting under SARA TITLE III, SECTION 313  
 All components in this coating have been verified as being on the TSCA Inventory

\* - TOXIC EFFECTS CAN OCCUR BY SKIN ABSORPTION.

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### SECTION III - PHYSICAL DATA

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Physical state: LIQUID  
 Odor and appearance: NA  
 Odor threshold (ppm): .0063  
 pH: NA

Boiling Range: 173 - 300 F ( 78 - 148 C)

Vapor is heavier than Air.

Evaporation rate is slower than ether.

% Volatile (vol)	70.71	Lb/gal(U.S.)	7.71	SpGr:	.92
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VOC Data Lb/Gal(U.S.):

Less Water (EPA)	4.78	Total Organic Solvents	4.78
Less Water & Exempt (EPA)	4.78	Total Non-Exempt Solvents	4.78

Solvent Density 6.7600

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### SECTION IV - FIRE AND EXPLOSION HAZARDS DATA

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FP: (CLOSED) 21 F ( -6 C) LEL .90%  
 Flammability Class (OSHA): FLAMMABLE LIQUID - 1B

EXTINGUISHING MEDIA: Foam, Carbon Dioxide or Dry Chemical.

UNUSUAL FIRE AND EXPLOSION HAZARDS: During emergency conditions, overexposure to decomposition products (See Section VI - Reactivity Data) may cause a health hazard; symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIREFIGHTING PROCEDURES: Water may be ineffective in fighting fire. If water is used to cool closed containers to prevent pressure build-up, fog nozzles are preferred. Full protective equipment, including self-contained breathing apparatus is needed to protect firefighters from exposure to coating's hazardous ingredients and hazardous decomposition products.

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**SECTION V - HEALTH HAZARD DATA AND FIRST AID PROCEDURES**

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EFFECTS OF OVEREXPOSURE: CAUSES EYE BURNS. HARMFUL IF SWALLOWED. MAY CAUSE NOSE AND THROAT IRRITATION. CAN BE ABSORBED THROUGH SKIN. CAUSES SKIN BURNS. MAY CAUSE LUNG INJURY. MAY AFFECT THE BRAIN OR NERVOUS SYSTEM, CAUSING DIZZINESS, HEADACHE OR NAUSEA. HARMFUL IF INHALED.

Other effects of OVEREXPOSURE may include: dizziness, narcosis, headache, pneumoconiosis, drying of nasal mucosa, anesthesia, fatigue, vomiting, cough, weakness, asphyxia, drowsiness, gastritis, shortness of breath, unconsciousness, reduced visibility, deposits in eyes, dermatitis, diarrhea, loss of coordination, difficulty with speech, swelling and redness of skin, abdominal pain, necrosis of the skin, lacrimation, conjunctivitis, edema.

PRIMARY ROUTE(S) OF ENTRY: inhalation, skin contact, ingestion, eyes.

MEDICAL CONDITIONS THAT CAN BE AGGRAVATED: pulmonary conditions, skin disorders.

CHRONIC HEALTH HAZARDS:

Repeated OVEREXPOSURE to this product may cause: central nervous system damage, liver abnormalities, lung damage, spleen damage, cardiac abnormalities, birth defects.

CAUTION: Contains formaldehyde which caused cancer in laboratory animals by inhalation and is listed as a suspect carcinogen by NTP and IARC (Group-2B). Contains a urea-formaldehyde resin which, under certain conditions, could release formaldehyde in quantities sufficient to require monitoring under OSHA regulations. Formaldehyde is a suspect carcinogen. Contains a melamine-formaldehyde resin which, under certain conditions, could release formaldehyde in quantities sufficient to require monitoring under OSHA regulations. Formaldehyde is a suspect carcinogen.

NOTICE: Reports have associated repeated and prolonged OVEREXPOSURE to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents of this package may be harmful or fatal.

\*\*\*\*EMERGENCY AND FIRST AID PROCEDURES\*\*\*\*.

SKIN CONTACT: Flush with water for at least 15 minutes and get medical attention. Remove contaminated clothing and wash before reuse. Remove and destroy contaminated shoes.

EYE CONTACT: Flush with water for at least 15 minutes and get medical attention.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.

NGESTION: Get medical attention IMMEDIATELY.

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SECTION VI - REACTIVITY DATA

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aterial is STABLE under non-emergency conditions.

aterial WILL NOT undergo hazardous polymerization.

HAZARDOUS DECOMPOSITION PRODUCTS: oxides of carbon, oxides of nitrogen, fumes, various hydrocarbons, ammonia, formaldehyde, aldehydes, methanol.

CONDITIONS TO AVOID: heat, open flame, sparks.

MATERIALS TO AVOID: acids, oxidizers, amines, oxygen, alkali metal, chlorinated solvents, aldehydes, nitric acid, liquid chlorine, sodium hypochlorite, calcium hypochlorite, alkanolamines, ammonia, sodium hydroxide.

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SECTION VII - SPILL AND LEAK PROCEDURES

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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove all sources of ignition. Wear appropriate safety equipment as listed in Section VIII. Absorb on inert material and dispose of as below.

WASTE DISPOSAL METHODS: Dispose of in accordance with FEDERAL, STATE and local regulations. Incineration is the preferred method of disposal.

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SECTION VIII - SAFE HANDLING AND USE INFORMATION

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RESPIRATORY PROTECTION: Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during application and handling unless air monitoring demonstrates vapor/mist levels below applicable limits. Follow respirator manufacturer's recommendations for selection and use.

VENTILATION: Sufficient ventilation must be provided to maintain airborne concentrations below TLV, PEL and LEL limits as listed in Section II.

PROTECTIVE GLOVES: Chemical resistant protective gloves should be worn when handling this product. Check with glove manufacturer to determine proper glove type.

EYE PROTECTION: Face-shield should be worn.

OTHER PROTECTIVE EQUIPMENT: Eye bath and safety shower should be provided. Rubber apron should be worn.

HYGIENIC PRACTICES: Good personal hygiene practices are required at all times when handling chemicals. These practices include, but are not limited to, washing when safety equipment is removed, at the end of each shift or when going on breaks and especially if contamination occurs.

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**SECTION IX - SPECIAL PRECAUTIONS**

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**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** All equipment should be grounded. Keep containers closed when not in use. Store in a clean, dry area. Store away from ignition sources. Store in well-ventilated area. Avoid contact with copper, brass and bronze.

**OTHER PRECAUTIONS:** All precautions must be observed. Empty container may retain product residues (vapor or liquid).

This product contains the following SARA Title III, Section 313, reportable materials: formaldehyde, n-butyl alcohol, methyl ethyl ketone, toluene, xylene (mixed isomers).

This product contains the following California proposition 65 suspect carcinogens: formaldehyde.

This product contains the following California Proposition 65 reproductive toxicants: toluene.

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**SECTION X - OTHER INFORMATION**

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The absence of a positive finding indicates that we believe, to the best of our knowledge, that the negative is true.

**Disclaimer:** While Akzo Coatings Inc. believes that the data contained herein are accurate and derived from qualified sources, the data are not to be taken as a warranty or representation for which Akzo Coatings Inc. assumes legal responsibility. They are offered solely for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State and local laws and regulations.

**ABBREVIATIONS USED IN PREPARING THIS MSDS :**

HMIS - Workplace Hazardous Materials Information System

TSCA - Toxic Substances Control Act

CFR - Code of Federal Regulations

mg/M3 - Milligrams per Meter Cubed

LEL - Lower Explosion Limit

FP - Flash Point

lb/gal - Pounds Per Gallon

NA - Not Available or Nonapplicable

mg/L - Milligrams Per Liter

ppm - Parts Per Million

mm/Hg - Millimeters of Mercury

F - Fahrenheit

> - Greater Than                      < - Less Than

% - Percent

lb - Pounds

CAS No - Chemical Abstract Number

HMIS - Hazardous Material Information System

ORAL-LD50 - Oral Lethal Dose (50% Death)

INHAL-LC50 - Inhalation Lethal Concentration (50% Death)

ERM-LD50 - Dermal Lethal Dose (50% Death)

EL - Permissible Exposure Limit

LV - Threshold Limit Value

TEL - Short Term Exposure Limit

EIL - Ceiling Limit

- At

SHA - Occupational Safety and Health Administration

ARC - International Agency for Research on Cancer

TP - National Toxicology Program

ARA - Superfund Amendments & Reauthorization Act (1986)

OT - Department of Transportation