



**Akron Coating & Adhesives**  
**365 Stanton Ave.**  
**Akron, Ohio 44301**  
**Phone: 330-724-4716 FAX: 330-724-5923**

**MATERIAL  
SAFETY DATA**

EMERGENCY PHONE : 1-330-329-0098

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THIS PRODUCT MAY BE CONSIDERED TO BE A HAZARDOUS CHEMICAL UNDER THAT STANDARD. (REFER TO THE OSHA CLASSIFICATION IN SEC I.) THIS INFORMATION IS REQUIRED TO BE DISCLOSED FOR SAFETY IN THE WORKPLACE. THE EXPOSURE TO THE COMMUNITY, IF ANY, IS QUITE DIFFERENT

**I – PRODUCT IDENTIFICATION**

Product Name:	<b>ACA-10-414</b>
Synonyms:	Water Based Nonconductive Heat Activated Coating
Chemical Family:	Modified Polyhydroxyether
Formula:	Not applicable/Mixture
Description:	Heat Activated Coating Water Based Coating
Hazard Classification:	Skin, eye, and respiratory irritant
Revision No.:	1
Revision Date:	3/31/05
Akron Coating & Adhesives MSDS No:	None

**II – COMPONENT DATA**

***Product Composition***

CAS or Chemical Name:	Modified Polyhydroxyether				
CAS Number:	68957-91-5				
Percentage Range:	70-75%				
Hazardous Per 29 CFR 1910.1200:	No				
Exposure Standards:	None Established				
CAS or Chemical Name:	Waterborne Urethane				
CAS Number:	N/A Mixture				
Percentage Range:	8-10%				
Hazardous Per 29 CFR 1910.1200:	No				
Exposure Standards:	None Established				
CAS or Chemical Name:	N-Methylpyrrolidone				
CAS Number:	872-50-4				
Percentage Range:	1.8-2.6%				
Hazardous Per 29 CFR 1910.1200:	Yes				
Exposure Standards:	10 ppm (8 Hr. TWA) – Recommended internal exposure standard				
CAS or Chemical Name:	Propylene glycol n-propyl ether				
CAS Number:	1569-01-3				
Percentage Range:	5.5-6.0%				
Hazardous Per 29 CFR 1910.1200:	Yes				
Exposure Standards:	None Established				
CAS or Chemical Name:	Formaldehyde				
CAS Number:	50-00-0				
Percentage Range:	0.01-0.04%				
Hazardous Per 29 CFR 1910.1200:	Yes				
Exposure Standards:		OSHA PEL		ACGIH(TLV)	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
	TWA	0.75/8hr	None	200	None
	CEILING	None	None	0.3	None
	STEL	2/15min	None	250 Skin	None



**Akron Coating & Adhesives**  
**365 Stanton Ave.**  
**Akron, Ohio 44301**  
**Phone: 330-724-4716 FAX: 330-724-5923**

**MATERIAL  
SAFETY DATA**

CAS or Chemical Name:	Butanol				
CAS Number:	71-36-3				
Percentage Range:	2.5-3.5%				
Hazardous Per 29 CFR 1910.1200:	Yes				
Exposure Standards:		OSHA PEL		ACGIH(TLV)	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
	TWA	None	None	None	None
	CEILING	50	None	50	None
	STEL	None	None	None	None

CAS or Chemical Name:	Triethylamine				
CAS Number:	121-44-8				
Percentage Range:	0.3-0.6%				
Hazardous Per 29 CFR 1910.1200:	Yes				
Exposure Standards:		OSHA PEL		ACGIH(TLV)	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
	TWA	25	100	1 Skin	4.1 Skin
	CEILING	None	None	None	None
	STEL	None	None	3 Skin	12.4 Skin

**III – PRECAUTIONS FOR SAFE HANDLING AND STORAGE**

DO NOT TAKE INTERNALLY. AVOID CONTACT WITH SKIN, EYES, AND CLOTHING.  
 UPON CONTACT WITH SKIN OR EYES, WASH OFF WITH WATER, AVOID BREATHING MIST OR VAPOR

***STORAGE CONDITIONS:***

Store in a dry place in sealed containers. Close container when not in use. Do not expose to direct sunlight or area where temperature can exceed 140<sup>0</sup> F. Do not store below 32<sup>0</sup> F

***PRODUCT STABILITY AND COMPATIBILITY:***

SHELF LIFE LIMITATIONS:	Six months
INCOMATIBLE MATERIALS FOR PACKGING	Steel containers may rust
INCOMPATIBLE MATERIALS FOR STORAGE OR TRANSPORT:	Strong oxidizers, mineral acids



**Akron Coating & Adhesives**  
**365 Stanton Ave.**  
**Akron, Ohio 44301**  
**Phone: 330-724-4716 FAX: 330-724-5923**

**MATERIAL  
SAFETY DATA**

#### IV – PHYSICAL DATA

Appearance:	Milky liquid
Melting Point:	Not applicable
Freezing Point:	0 <sup>0</sup> C (32 <sup>0</sup> F)
Boiling Point:	100 <sup>0</sup> C (212 <sup>0</sup> F )
Decomposition Temperature:	No Data
Specific Gravity:	Approximately 1
Bulk Density:	Approximately 1 (g/cc)
pH @ 25 <sup>0</sup> C:	7.5-8.5
Vapor Pressure @ 25 <sup>0</sup> C:	18.268 mm Hg
Solubility in Water:	Not Applicable (Product is a dispersion)
Volatiles, Percent by Volume:	70%
Evaporation Rate:	< 1 (Water = 1)
Vapor Density:	Similar to water
Molecular Weight:	Not Applicable / Mixture
Odor:	Mild Sour
Coefficient of Oil/Water Distribution:	Not available

#### V – PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

***Personal Protection for Routine Use of Product:***

Respiratory Protection:	Respiratory protection not normally needed. If vapors, mists, or aerosols are generated, wear a NIOSH approved respirator.
Ventilation:	Local exhaust ventilation is recommended if vapors, mists or aerosols are generated. Otherwise, use general exhaust ventilation.
Skin And Eye Protection:	Wear impervious gloves, boots, apron and a face shield with safety glasses or chemical goggles. A full impervious suit is recommended if exposure is possible to large portion of body.
Other:	Eye wash and safety shower should be available in the immediate work vicinity

#### VI – FIRE AND EXPLOSION HAZARD INFORMATION

***Flammability Data:***

Explosive:	No
Flammable:	No
Combustible:	No
Pyrophoric:	No
Flash Point:	None
Autoignition Temperature:	Not Applicable (aqueous dispersion)
Flammable Limits at Normal Atmospheric Temperature and Pressure (Percent Volume in Air):	LEL – Not Applicable UEL - Not Applicable



**Akron Coating & Adhesives**  
 365 Stanton Ave.  
 Akron, Ohio 44301  
 Phone: 330-724-4716 FAX: 330-724-5923

**MATERIAL  
SAFETY DATA**

**NEPA Ratings:**

Health:	Not available
Flammability:	Not available
Reactivity:	Not available
Special Hazard Warning	Not available

**HMIS Rating:**

Health:	1
Flammability:	0
Reactivity:	0

**Extinguishing Media:**

Not Applicable – Choose extinguishing media suitable for surrounding materials.

**Fire Fighting Techniques and Comments:**

This product would not be expected to burn unless all the water is boiled away. The remaining organic compounds may be ignitable. Use water to cool containers exposed to fire.

USE A NIOSH APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS WHEN THIS MATERIAL IS INVOLVED IN A FIRE.

**VII – REACTIVITY INFORMATION**

**Conditions Under Which This Product May Be Unstable:**

Temperatures Above:	Stable at temperatures below 140 <sup>0</sup> F
Mechanical Shock or Impact:	Not considered sensitive
Electrical (Static) Discharge:	Not considered sensitive
Hazardous Polymerization:	Will not occur
Incompatible Materials:	Strong oxidizers, mineral acids
Hazardous Decomposition:	Combustion products may include oxides of carbon and nitrogen, di-isocyanates and hydrogen cyanide

**Summary of Reactivity:**

Explosive:	No
Oxidizer:	No
Pyrophoric:	No
Organic Peroxide:	No
Water Reactive:	No
Corrosive:	No

**VIII – FIRST AID**

**Eyes:**

Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention.



**Akron Coating & Adhesives**  
**365 Stanton Ave.**  
**Akron, Ohio 44301**  
**Phone: 330-724-4716 FAX: 330-724-5923**

**MATERIAL  
SAFETY DATA**

***Skin:***

Immediately flush with water for at least 15 minutes. Get medical attention. If clothing comes in contact with the product, the clothing should be removed immediately and should be laundered before re-use. Components of product can be absorbed through the skin resulting in toxic effects.

***Ingestion:***

IMMEDIATELY CONTACT OCEAN EMERGENCY PHONE AT 1-888-289-1911

***Inhalation:***

Remove to fresh air immediately. If breathing has stopped, give artificial respiration and keep warm and quiet. Get medical attention.

**IX – TOXICOLOGY AND HEALTH INFORMATION**

**ROUTES OF ABSORPTION**

Eye and skin contact, ingestion, inhalation

***Warning Statements and Warning Properties***

MAY CAUSE SKIN, EYE AND RESPIRATORY IRRITATION. PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE DERMATITIS. INHALATION OF HIGH CONCENTRATIONS MAY CAUSE DIZZINESS OR DROWSINESS. DO NOT ADD NITRITES OR OTHER NITROSATING AGENTS TO THIS PRODUCT BECAUSE A NITROSAMINE MAY BE FORMED. NITROSAMINES MAY CAUSE CANCER. THIS PRODUCT CONTAINS FORMALDEHYDE WHICH IS A KNOWN HUMAN CARCINOGEN.

***Human Threshold Response Data***

Odor Threshold:	No Data
Irritation Threshold:	No Data
Immediately Dangerous to Life or Health:	The IDLH concentration has not been established for this product. For Formaldehyde: 100 ppm

**SIGNS, SYMPTOMS AND EFFECTS OF EXPOSURE**

***Inhalation***

Acute:	If inhaled, may cause irritation to the upper respiratory tract. Any irritation would be transient with no permanent damage expected. Inhalation of high concentrations may cause headache, dizziness, drowsiness, and nausea.
Chronic:	Prolonged or repeated inhalation of this product may cause allergic respiratory sensitization.

***Skin***

Acute:	Skin contact may produce mild irritation consisting of transient redness. This irritant effect would not result in permanent damage.
Chronic:	Since liquid material may be absorbed through the skin, prolonged or repeated contact may result in absorption of harmful amounts. Prolonged or repeated skin contact may cause dermatitis. Repeated or prolonged skin contact may also cause some individuals to develop skin rash or other skin complications due to allergic skin sensitization.



**Akron Coating & Adhesives**  
365 Stanton Ave.  
Akron, Ohio 44301  
Phone: 330-724-4716 FAX: 330-724-5923

**MATERIAL  
SAFETY DATA**

### ***Eye***

Contact with the eyes would be expected to cause irritation consisting of reversible redness, swelling, tearing, and mucous discharge to the conjunctiva.

### ***Ingestion***

Acute:	No data is available on the effects of acute ingestion of this product. However, ingestion may cause gastrointestinal discomfort with any or all of the following symptoms: nausea, lethargy or diarrhea.
Chronic:	There are no known or reported effects from chronic exposure

### **MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

### ***Skin***

Skin contact may aggravate and existing dermatitis

### **INTERACTIONS WITH OTHER CHEMICALS WHICH ENHANCE TOXICITY**

None known or reported

### **ANIMAL TOXICOLOGY**

Inhalation LC 50:	No Data. Believed to be slightly toxic
Dermal LD 50:	No Data. Believed to be slightly toxic
Oral LD 50:	No Data. Believed to be slightly toxic
Irritation:	Skin, eye, mucous membrane, and respiratory irritant.

### ***Acute Target organ Toxicity***

May cause skin, eye, mucous membrane, and respiratory tract irritation. Inhalation of high concentrations of vapors may cause dizziness or drowsiness.

### ***Chronic Target Organ Toxicity***

This product may cause dermatitis upon prolonged or repeated skin contact. Formaldehyde has oral (rat) and dermal (rabbit) LD50 values of 100 mg/kg and 270 mg/kg respectively. The LC50 following a 4-hour inhalation exposure to rats is 250-478 ppm (0.31 – 0.59 mg/l. Irritation of the nose and throat has been observed in people exposed to formaldehyde vapor levels in excess of 1ppm. Formaldehyde has been reported to cause pulmonary hypersensitivity in some individuals who were exposed to concentrations known to cause irritation. Lifetime inhalation of formaldehyde vapor at concentrations above 5ppm for 6 hours per day caused nasal tumors in laboratory animals. Inhalation of formaldehyde caused liver and kidney damage in laboratory animals.

### ***Reproductive and Developmental Toxicity***

Formaldehyde did not cause birth defects in rats inhaling concentrations up to 10 ppm. However, a study using higher levels did show a slight but statistically significant reduction in male fetal body weight.

### ***Carcinogenicity***

The International Agency for Research on Cancer has classified formaldehyde as a Group 1 (known) human carcinogen based on epidemiological evidence linking formaldehyde exposure to the occurrence of nasopharyngeal cancer, a rate type of cancer. IARC also found limited evidence of cancer of the nasal cavity and paranasal sinuses and insufficient evidence for an association between formaldehyde and leukemia.



**Akron Coating & Adhesives**  
 365 Stanton Ave.  
 Akron, Ohio 44301  
 Phone: 330-724-4716 FAX: 330-724-5923

**MATERIAL  
SAFETY DATA**

**Mutagenicity**

Formaldehyde was found to be weakly mutagenic in a number of in vitro genotoxicity tests and positive in certain in vivo screening tests for mutagenicity.

**Aquatic Toxicity**

Formaldehyde is harmful to aquatic organisms Individual constituents are as follows:  
 Formaldehyde –  
 Rainbow Trout (*Oncorhynchus mykiss*) LC50: >100 mg/l, 22<sup>o</sup> C

**X – TRANSPORTATION INFORMATION**

US DOT  
 PROPER SHIPPING NAME: Not Regulated for non-bulk quantities  
 STATUS ON SUBSTANCE LISTS:  
 The concentrations shown are maximum or ceiling levels (%weight) to be used for calculation for regulations.  
 Trade Secrets are Indicated by “TS”  
  
 Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (RQ’s) in 40CFR 302.4.  
 Components present in this product at a level which could require reporting under the statute (40CFR 355) are:  
 NONE.

**XI – SPILL AND LEAKAGE PROCEDURES**

FOR ALL SPILL AND LEAK ACCIDENTS, CONTACT: AKRON COATING & COATINGS PHONE: 1-330-329-0098  
 Reportable Quantity: This product is not subject to a Reportable Quantity (RQ) with respect to formaldehyde (4761.9 lbs.). RQ’s are subject change and reference should be made to 40CFR 355 for the current requirements.

**Spill Mitigation Procedures:**

Air Release:	Vapors may be suppressed by the use of water fog or spray. Contain all liquid for disposal.
Water Release:	Notify all downstream water users of possible contamination. Divert water flow around spill if possible and safe to do so. If unable to divert, create an overflow dam to contain material. Continue to handle as described in land spill
Land Spill:	Confine to a small area. Use absorbent to clean up. Place in appropriately marked container for disposal.

**Spill Residues:**

Dispose of per guidelines under Section XII, WASTE DISPOSAL.

**Personal Protection for Emergency Spill and Firefighting Situations:**

USE NIOSH APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS WHEN THIS MATERIAL IS INVOLVED IN A FIRE. USE FULL PROTECTIVE CLOTHING.

**XII – WASTE DISPOSAL**

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS. IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NON HAZARDOUS WASTES.



**Akron Coating & Adhesives**  
365 Stanton Ave.  
Akron, Ohio 44301  
Phone: 330-724-4716 FAX: 330-724-5923

**MATERIAL  
SAFETY DATA**

### **XIII – ADDITIONAL REGULATORY STATUS INFORMATION**

TSCA – The components of this developmental product are listed on the Toxic Substances Control Act Chemical Substance Inventory

This product contains a component that is subject to 40CFR 721.80(f), 721.90(a)(4), (b)(4) (where n=10) and 721.125 (a), (b), (c), (i), and (k). For additional assistance contact Akron Coating & Coatings.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 – PROPOSITION 65:

“WARNING: This product contains detectable amounts of a chemical (s) known to the State of California to cause cancer and/or birth defects or other reproductive harm.”

SARA – This developmental product contains a toxic chemical or chemicals subject to the reporting requirement of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40CFR 372.

CHEMICALS LISTED ARE : FORMALDEHYDE, PROPYLENE GLYCOL N-PROPYL ETHER, BUTANOL

### **XIV – ADDITIONAL INFORMATION**

THE INFORMATION PROVIDED ON THIS MSDS IS THE BEST ESTIMATE OF TECHNICALLY QUALIFIED INDIVIDUALS BUT MAY NOT BE BASED ON DIRECT TOXICOLOGY TESTING OR EXPERIENCE IN EMERGENCY SITUATIONS. IT MUST BE USED BY OR UNDER THE DIRECT SUPERVISION OF TECHNICALLY QUALIFIED INDIVIDUALS (AS DEFINED IN 40CFR 710.2). CONSULT PLANT PROCEDURES IN THE EVENT OF A SPILL OR LEAK FOR HANDLING AND ENVIRONMENTAL INFORMATION

THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. AKRON COATING & COATINGS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION, BUT MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT AKRON COATING & COATINGS AT 330-724-4716 TO MAKE SURE THAT THIS SHEET IS CURRENT.