

# MATERIAL SAFETY DATA SHEET

IMPORTANT: BEFORE OPENING ANY WHITTAKER PACKAGE, READ WARNING LABELS AND FOLLOW ALL PRECAUTIONS.

## Section I

Whittaker Corporation  
 100 S. Electric Street

CITY, STATE, AND ZIP CODE West Alexandria, OH 45381

(513) 839-4612

Same

MANUFACTURER'S CODE IDENTIFICATION Same

Same

DOT CLASS: Adhesives - Flammable Liquid  
 UN#1133

416 & 416-D

## Section II — HAZARDOUS INGREDIENTS

	416 416-D		ACGIH TLV		OSHA PEL		STEL	CAS Number
	PERCENT BY WT.		PPM	Mg/M <sup>3</sup>	PPM	Mg/M <sup>3</sup>		
Acetone	~35	39	200		200		300 PPM	78-93-3
Propylene	~22	39	NE		NE		NE	108-65-6 & 34590-94-8
Other Acetates	~6	3	100		100		150 PPM	1330-20-7
	~7	5	50 ceiling		100			71-36-3
	< 1	Trace	5		5			108-95-2
	~4	2	1000		1000			64-17-5

## Section III — PHYSICAL DATA

100°F.

VAPOR DENSITY  HEAVIER  LIGHTER THAN AIR

FASTER  SLOWER THAN ETHER

PERCENT VOLATILE ~76 (416) WEIGHT PER ~7.9 lbs. (416)  
 BY WEIGHT ~87 (416-D) GALLON ~7.7 lbs. (416-D)

## Section IV — FIRE AND EXPLOSION HAZARD DATA

Flammable Liquid

FLASH POINT ~ 50 °F CLOSED CUP

1.0 LEL

Carbon dioxide, dry chemical or foam extinguishers.

HAZARDS — Considered fire hazard due to flash point, high volatility and potential heavy vapors.

PROCEDURES — Closed or confined areas require self-contained breathing apparatus.

UNCLASSIFIED

NA = NOT APPLICABLE

MSDS RELATE ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN AND DO NOT COMBINATION WITH ANY OTHER MATERIAL OR ANY PROCESS.

## Section V — REACTIVITY DATA

STABILITY  UNSTABLE  STABLE

CONDITIONS TO AVOID None known except product may gel product rendered unusable

COMPATIBILITY (Materials to avoid) Unknown. Follow use guidelines for dilution on bulletin.

DANGEROUS DECOMPOSITION OR BY-PRODUCTS - Potential for CO CO<sub>2</sub>.

DANGEROUS POLYMERIZATION  MAY OCCUR  WILL NOT OCCUR

CONDITIONS TO AVOID None Known

## Section VI — HEALTH HAZARD DATA

ROUTE(S) OF ENTRY INHALATION?  SKIN?  INGESTION? Possible

SIGNS AND SYMPTOMS OF EXPOSURE - Warning! Harmful if inhaled. May cause dizziness, nausea, nose, throat, eye and skin irritation.

HEALTH HAZARDS (Acute and Chronic) - Xylene can be absorbed through the skin causing liver damage as well as reversible damage to the blood system of animals. Ketone may cause peripheral neuropathy with possible tingling or numbness in extremities. Phenol may cause damage to the G.I. system, respiratory system and the genitourinary organs. Butyl Alcohol also may effect above.

MUTAGENICITY - Product or constituents not believed to be human carcinogens

ADDITIONAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE - Solvents may aggravate pre-existing conditions as well as organs named above.

EMERGENCY AND FIRST AID PROCEDURES - For direct contact remove contaminated clothing. Wash skin with soap and water thoroughly. If unconscious, remove to fresh air and administer CPR/oxygen.

## Section VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED - Eliminate all ignition sources. Absorb with water or absorbent materials. Use approved waste disposal.

APPROPRIATE DISPOSAL METHOD - Incinerate either as liquid or solid flammable waste indicated by physical state.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING - Keep from heat, sparks and open flame. Avoid prolonged skin contact. Do not take internally.

ADDITIONAL PRECAUTIONS - Ground container when using to avoid static charge which could ignite solvent. Keep container no more than a few inches when pouring.

## Section VIII - CONTROL MEASURES

RESPIRATORY PROTECTION - Use approved NIOSH/OSHA respirators e.g. self-contained breathing or canister respirator.

VENTILATION - LOCAL EXHAUST - Required to maintain below TLV/PEL.

SPECIAL - None

MECHANICAL (General) - As required to maintain below TLV/PEL.

OTHER - None

PROTECTIVE GLOVES - Use type not affected by this product. EYE PROTECTION - Safety glasses, face shield or goggles.

ADDITIONAL PROTECTIVE CLOTHING OR EQUIPMENT - Not usually required.

ADDITIONAL HYGIENIC PRACTICES - Refrain from eating or smoking in area of use.

# THIXON<sup>®</sup>

## VULCANIZABLE BONDING AGENT

### TECHNICAL SHEET

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Coat adhesive for bonding castable urethane compounds to metal and substrates. THIXON<sup>®</sup> 416 coated parts require no extensive prebaking or molding.

.....	Clear
Wt. ....	7.89 lbs.
Sp. Gravity .....	0.95
Viscosity (Brookfield, No. 1 Spindle, 20 RPM) .....	280 cps.
Volatile Solids .....	24%
Shelf Life at 78°F. (26°C.) .....	6 months
Freezing Point (Seta) .....	5°F. (-15°C.)

Resistant to solvents, abrasion, corrosion.

Applied by brushing, dipping or spraying.

Applied to clean surfaces, preferably to gritblasted (#40 or #50) and solvent degreased substrates. After applying, dry for 20 to 30 minutes at room temperature.

For spraying, dilute to a viscosity of 16 to 18 seconds with a #2 Zahn cup using the diluent blend below. Should be thoroughly agitated with high speed propeller type agitator while diluent blend is being added.

THIXON<sup>®</sup> 416 may be used with little or no prebaking. THIXON<sup>®</sup> coated parts may be preheated up to 212°F. to facilitate processing and avoid thermal shock. Prebaking for extended periods at 212°F. is not recommended. A tolerance study for the polymer selected should be conducted to determine maximum tolerance since this varies considerably with various polymer types. Dry film thickness should be .5 to 1.0 mil.

Thermal stability is excellent. Coated parts can be stored, but must be protected from dust and contamination.

Preferred diluent is THIXON<sup>®</sup> 917 or the following diluent blend:

THIXON <sup>®</sup> 416 .....	60 parts by weight
1 Ethyl Ketone .....	30 parts by weight
1 Butyl Alcohol or Ethanol ....	10 parts by weight

or Ethanol BC-300 Glycol Ether Acetate or equivalent



Prolonged breathing of vapors is harmful. Use only with adequate ventilation. Repeated contact may cause skin irritation. This material is harmful or fatal if swallowed. If swallowed, do not induce vomiting, but contact physician immediately.

Usual fire safety measures should be observed. Keep away from heat, sparks and open flame.

Specification Writers: Data is typical and is not to be used for specifications.

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