



# Material Safety Data Sheet

Date of printing : 11/30/2005.

Date of issue : 11/30/2005.

## Section 1. Chemical product and company identification

Prepared For

Prepared by

Akzo Nobel Coatings Inc.

25 Brush Street

Pontiac, MI 48341

1-(248)-637-0400

**IN CASE OF EMERGENCY (HEALTH OR SPILLS):**

CHEMTREC (US and Canada) (800) 424-9300

Product no. : Not available.

Product - Class : Synteko Classic Hardener

Customer Part Numbe :

Customer ShipTo ID:

## Section 2. Composition, Information on Ingredients

Name	CAS #	% by weight	Vapor pressure	Exposure Limits (ACGIH-TLV/OSHA-PEL)
ethyl alcohol	64-17-5	45 - 55	5.5 kPa (41.4 mm Hg) (at 20°C)	<b>ACGIH TLV (United States).</b> TWA: 1000 ppm 8 hour(s). <b>OSHA PEL (United States).</b> TWA: 1000 ppm 8 hour(s).
methoxypropanol	107-98-2	10 - 25	1.2 kPa (8.7 mm Hg) (at 20°C)	<b>ACGIH TLV (United States).</b> TWA: 100 ppm 8 hour(s). STEL: 150 ppm 15 minute(s). <b>OSHA PEL (United States).</b> TWA: 100 ppm 8 hour(s). STEL: 150 ppm 0 minute(s).
p-toluene sulfonic acid	104-15-4	10 - 25	Not available.	Not available.
methyl alcohol	67-56-1	1 - 5	13 kPa (97.7 mm Hg) (at 20°C)	<b>ACGIH TLV (United States). Skin</b> TWA: 200 ppm 8 hour(s). STEL: 250 ppm 15 minute(s). <b>OSHA PEL (United States).</b> TWA: 200 ppm 8 hour(s).
methyl isobutyl ketone	108-10-1	1 - 5	2 kPa (15 mm Hg) (at 20°C)	<b>ACGIH TLV (United States).</b> TWA: 50 ppm 8 hour(s). STEL: 75 ppm 15 minute(s). <b>OSHA PEL (United States).</b> TWA: 100 ppm 8 hour(s).

### Section 3. Hazards identification

**Emergency overview** : Warning!

**Effects of Overexposure** : HARMFUL IF ABSORBED THROUGH SKIN.  
CAUSES SEVERE EYE AND SKIN IRRITATION.  
CAUSES RESPIRATORY TRACT IRRITATION.  
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: NERVOUS SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.  
FLAMMABLE LIQUID AND VAPOR.  
VAPOR MAY CAUSE FLASH FIRE.  
MAY BE HARMFUL IF SWALLOWED.  
CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: KIDNEYS, LUNGS, LIVER, HEART, BRAIN, CENTRAL NERVOUS SYSTEM.  
Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.

**Potential acute health effects**

**Eyes** : Severely irritating to the eyes.

Other effects of eye contact may include : burning, eye damage, redness, tearing,

**Skin** : Toxic in contact with skin. Severely irritating to the skin.

Other effects of skin contact may include: dehydration, dermatitis, discoloration,

Effects due to absorption through skin may include: CNS effects, cramps, cyanosis, diarrhea, dizziness, drowsiness, fatigue, headache, kidney damage, liver damage, nausea, vomiting, weakness,

**Inhalation** : Irritating to respiratory system.

Other effects of inhalation may include: anesthesia, blindness, blurred vision, CNS effects, cough, cramps, cyanosis, dizziness, drowsiness, fatigue, headache, kidney damage, liver damage, nausea, pulmonary edema, shortness of breath, weakness,

**Ingestion** : Harmful if swallowed.

Other effects of ingestion may include : abdominal pain, blindness, burns, CNS effects, cramps, cyanosis, diarrhea, dizziness, drowsiness, fatigue, gastric disturbances, headache, incoordination, irritation, kidney damage, liver damage, nausea, vomiting, weakness,

**Potential chronic health effects** : CARCINOGENIC EFFECTS: Classified None. by OSHA, None. by NIOSH [methyl alcohol].  
MUTAGENIC EFFECTS: None by OSHA standard.

TERATOGENIC EFFECTS: Classified POSSIBLE for human [methyl alcohol].

Contains material which causes damage to the following organs: the nervous system, gastrointestinal tract, upper respiratory tract, skin, eye, lens or cornea.

Contains material which may cause damage to the following organs: kidneys, lungs, liver, heart, brain, central nervous system (CNS).

**Medical conditions aggravated by overexposure** : skin disorders, liver conditions, kidney conditions, cardiovascular diseases,

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.

**See toxicological Information (section 11)**

### Section 4. First aid measures

**Eye Contact** : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin Contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

## Section 5. Fire fighting measures

- Flammability of the product** : Flammable.
- Auto-ignition Temperature** : The lowest known value is 276.6°C (529.9°F) (methoxypropanol).
- Flash Points** : Closed cup: 11°C (52°F). (Setaflash.)
- Flammable limits** : The greatest known range is Lower: 6% Upper: 44% (methyl alcohol)
- Products of combustion** : These products are carbon oxides (CO, CO<sub>2</sub>), sulfur oxides (SO<sub>2</sub>, SO<sub>3</sub>...).
- Fire Hazards in Presence of Various Substances/Conditions** : Highly flammable in presence of open flames, sparks and static discharge.  
Flammable in presence of oxidizing materials.  
DANGER - Rags, steel wool or waste soaked with this product may spontaneously catch fire if improperly discarded. Immediately after use, place rags, steel wool or waste in a sealed water-filled metal container. Waste should be understood to include contaminated articles, including spray booth filters and strippings.
- Explosion Hazards in Presence of Various Substances/Conditions** : Highly explosive in presence of open flames, sparks and static discharge.
- Fire fighting media and instructions** : SMALL FIRE: Use DRY chemical powder.  
LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
- Protective clothing (fire)** : Be sure to use an approved/certified respirator or equivalent.

## Section 6. Accidental release measures

- Spill and Leak** : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Do not touch or walk through spilled material.  
If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Dispose of as in Section 13.

## Section 7. Handling and storage

- Handling** : Do not ingest. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling.
- Storage** : Store in an approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

OTHER PRECAUTIONS: All precautions must be observed. Empty container may retain product residues.

## Section 8. Exposure Controls, Personal Protection

Selection of personal protective equipment (PPE) is to be established by performing a PPE hazard assessment. In the U.S.A, OSHA requires completion of a certified PPE hazard assessment as described in 29 CFR 1910.132.

- Engineering controls** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the work-station location.

### Personal protection

- Eyes** : Face shield.
- Body** : Synthetic apron.

**Respiratory** : Wear appropriate respirator when ventilation is inadequate.

**Hands** : Impervious gloves.

**Feet** : Not applicable.

**Protective clothing (pictograms)** :



**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.

## Section 9. Physical and chemical properties

<b>Physical State and Appearance</b>	: Liquid.
<b>Color</b>	: Not available.
<b>Odor</b>	: Not available.
<b>pH</b>	: 1.8 (Conc. (% w/w): 10) [Acidic.]
<b>Boiling/condensation point</b>	: The lowest known value is 63.8889°C (147°F) (methyl alcohol).
<b>Melting/freezing point</b>	: May start to solidify at -95°C (-139°F) based on data for: methoxypropanol.
<b>Specific Gravity</b>	: Weighted average: 0.89 (Water = 1)
<b>Vapor pressure</b>	: The highest known value is 13 kPa (97.7 mm Hg) (at 20°C) (methyl alcohol).
<b>Vapor density</b>	: Heavier than air
<b>Volatility</b>	: Not available.
<b>Odor threshold</b>	: The lowest known value is 100 ppm (methyl alcohol)
<b>Evaporation rate</b>	: The highest known value is Greater than 1. (ethyl alcohol) compared to butyl acetate
<b>VOC</b>	: 855.5 (g/l).
<b>Solubility</b>	: Easily soluble in hot water. Soluble in cold water.

## Section 10. Stability and reactivity

<b>Stability and Reactivity</b>	: Stable.
<b>Conditions of instability</b>	: heat, open flame, sparks, light, moisture, dusty conditions, drying out,
<b>Incompatibility with various substances</b>	: Reactive with oxidizing agents, metals, acids, alkalis.
<b>Hazardous Reaction Products</b>	: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
<b>Hazardous polymerization</b>	: Will not undergo hazardous polymerization.

## Section 11. Toxicological information

### Toxicity data

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
ethyl alcohol	LD50	7060 mg/kg	Oral	Rat
	LD50	20000 mg/kg	Dermal	Rabbit
	LD50	20000 mg/kg	Dermal	Rabbit
	LC50	20000 ppm (10 hour(s))	Inhalation	Rat
methoxypropanol	LD50	6600 mg/kg	Oral	Rat
	LD50	13000 mg/kg	Dermal	Rabbit
	LC50	10000 ppm (5 hour(s))	Inhalation	Rat
p-toluene sulfonic acid	LD50	2480 mg/kg	Oral	Rat
	LD50	>1000 mg/kg	Dermal	Guinea pig
methyl alcohol	LD50	5600 mg/kg	Oral	Rat
	LD50	7300 mg/kg	Oral	Mouse
	LD50	15800 mg/kg	Dermal	Rabbit

methyl isobutyl ketone	LDLo	143 mg/kg	Oral	human
	LDLo	428 mg/kg	Oral	human
	LDLo	6422 mg/kg	Oral	man
	LDLo	393 mg/kg	Dermal	Monkey.
	LC50	64000 ppm (4 hour(s))	Inhalation	Rat
	LD50	1600 mg/kg	Oral	Rat
	LD50	8000 mg/kg	Dermal	Rabbit
	LC50	2000 ppm (4 hour(s))	Inhalation	Rat

## Section 12. Ecological information

### Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
ethyl alcohol	Daphnia magna (EC50)	48 hour(s)	2 mg/l
	Daphnia magna (EC50)	48 hour(s)	9.3 mg/l
	Daphnia magna (EC50)	48 hour(s)	>100 mg/l
	Pimephales promelas (LC50)	96 hour(s)	>100 mg/l
	Daphnia magna (LC50)	96 hour(s)	>100 mg/l
methyl alcohol	Oncorhynchus mykiss (LC50)	96 hour(s)	13000 mg/l
	Daphnia magna (EC50)	48 hour(s)	>10000 mg/l
	Oncorhynchus mykiss (EC50)	48 hour(s)	13200 mg/l
	Lepomis macrochirus (EC50)	48 hour(s)	16000 mg/l
	Pimephales promelas (LC50)	96 hour(s)	>100 mg/l
methyl isobutyl ketone	Daphnia magna (LC50)	96 hour(s)	>100 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	15400 mg/l
	Scenedesmus subspicatus (EC50)	48 hour(s)	980 mg/l
	Scenedesmus subspicatus (EC50)	48 hour(s)	2000 mg/l
	Pimephales promelas (LC50)	96 hour(s)	505 mg/l
ethyl acetate	Pimephales promelas (LC50)	96 hour(s)	537 mg/l
	Pimephales promelas (LC50)	96 hour(s)	540 mg/l
	Pimephales promelas (EC50)	48 hour(s)	260 mg/l
	Scenedesmus subspicatus (EC50)	48 hour(s)	3300 mg/l
	Scenedesmus subspicatus (EC50)	48 hour(s)	5600 mg/l
	Pimephales promelas (LC50)	96 hour(s)	230 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	425.3 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	484 mg/l

**Products of degradation** : These products are carbon oxides (CO, CO<sub>2</sub>) and water, sulfur oxides (SO<sub>2</sub>, SO<sub>3</sub>...).









**Toxicity of the products of biodegradation** : The products of degradation are less toxic than the product itself.

## Section 13. Disposal considerations

**Waste information** : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**Consult your local or regional authorities.**

## Section 14. Transport information

Regulatory Information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
<b>DOT Classification</b>	UN2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethyl alcohol, p-toluene sulfonic acid)	3	II	 	<b>Packaging instruction</b> <b>Passenger Aircraft</b> Quantity limitation: 1 L  <b>Cargo Aircraft</b> Quantity limitation: 5 L
<b>TDG Classification</b>	UN2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethyl alcohol, p-toluene sulfonic acid)	3	II	 	-
<b>IMDG Class</b>	2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethyl alcohol, p-toluene sulfonic acid)	3	II	 	-
<b>IATA-DGR Class</b>	2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethyl alcohol, p-toluene sulfonic acid)	3	II	 	<b>Quantity limitation - Passenger Aircraft</b> 1 L  <b>Quantity limitation - Cargo Aircraft</b> 5 L

## Section 15. Regulatory information

**U.S. Federal regulations** : All components in this product have been verified as being on the TSCA Inventory.  
(HAPS) Clean air act (CAA) 112 regulated toxic substances: methyl alcohol; methyl isobutyl ketone; toluene; ethyl benzene; xylene, mixed isomers

### SARA 313

**Form R - Reporting requirements** : methyl alcohol 1.00 - 3.00  
methyl isobutyl ketone 1.00 - 3.00

**State regulations** : WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.: ethyl benzene, toluene

### International regulations

**International lists** : All components of this product are on the CEPA DSL inventory.

## Section 16. Other information

### HMIS III ® Hazardous Material Information System (U.S.A.)

Health	*	3
Fire hazard		4
Physical Hazard		0
Personal protection		



Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).  
Class D-1B: Material causing immediate and serious toxic effects (TOXIC).  
Class D-2A: Material causing other toxic effects (VERY TOXIC).  
Class E: Corrosive liquid.

### Notice to reader

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

**Disclaimer:** While Akzo Nobel Coatings 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 Nobel Coatings 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, Provincial and local laws and regulations.