

TPO LV BONDING ADHESIVE - 5 GAL TPO LV BONDING ADHESIVE - 5 GAL

Version 1.

Print Date 08/04/2009

REVISION DATE: 09/02/2008

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : TPO LV BONDING ADHESIVE - 5 GAL TPO LV BONDING ADHESIVE - 5 GAL
 Product code : TPO410 805

COMPANY : Tremco Incorporated
 3735 Green Road
 Cleveland, OH 44122

Telephone : (216) 292-5000 8:30 - 5:00 EST
 Emergency Phone: : (216) 765-6727 8:30 - 5:00 EST
 After Hours: Chemtrec 1-800-424-9300

Product use : Coating

SECTION 2 - HAZARDS IDENTIFICATION**Emergency Overview**

Yellow. Liquid. May cause moderate irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue. ~~Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.~~

Acute Potential Health Effects/ Routes of Entry

Inhalation : May cause moderate irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue.

Eyes : Vapor and/or mist may cause eye irritation. Direct contact may cause temporary redness and discomfort.

Ingestion : May cause irritation to the mouth, throat and stomach. May cause gastrointestinal irritation, nausea, and vomiting.

Skin : May cause moderate irritation.

Aggravated Medical Conditions

Pre-existing eye, skin, liver, kidney, and respiratory disorders may be aggravated by exposure.

Chronic Health Effects

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Prolonged inhalation or ingestion of large amounts of 1-chloro-4-(trifluoromethyl)-benzene may cause liver and kidney damage based on laboratory animal studies. Prolonged or repeated overexposure to acetone may cause liver damage, Central Nervous System depression and narcosis. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. Prolonged or repeated exposure may cause defatting, drying, and irritation of the skin, dermatitis, central nervous system (CNS) effects, heart muscle sensitization and arrhythmia, hearing loss, and brain, liver, kidney, and testes damage. Toluene overexposure may cause burns of the skin, respiratory tract damage. May be harmful to the human fetus based on animal tests and limited epidemiology data. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

Target Organs: Skin, Eye, Lung, Liver, Kidney, Nerve, Reproductive

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SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Halogenated Aromatic Hydrocarbon	NJ TSRN# 51721300-5382P	40.0 - 70.0
Acetone	67-64-1	15.0 - 40.0
Chloroprene Polymer	NJ TSRN# 51721300-6320P	15.0 - 40.0
Toluene	108-88-3	5.0 - 10.0
Aromatic hydrocarbon resin	NJ TSRN# 51721300-5274P	3.0 - 7.0
Ethylbenzene	100-41-4	- <0.1
Formaldehyde	50-00-0	- <0.1
Lead oxide	1317-36-8	- <0.1
Cadmium oxide	1306-19-0	- <0.1

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

- Inhalation** : Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.
- Eye contact** : Flush with water for at least 15 minutes while holding eye lids apart. Get medical attention immediately.
- Skin contact** : Clean area of contact thoroughly using soap and water. If irritation, rash or other disorders develop, get medical attention immediately.
- Ingestion** : Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately.

SECTION 5 - FIRE FIGHTING MEASURES

- Flash point** : 0.14 °F, -18 °C
- Method** : Setflash Closed Cup
- Lower explosion limit** : Not available.
- Upper explosion limit** : Not available.
- Autoignition temperature** : Not available.
- Extinguishing media** : If water fog is ineffective, use carbon dioxide, dry chemical or foam.
- Hazardous combustion products** : Smoke, fumes. Carbon monoxide and carbon dioxide can form. Nitrogen oxides can form.
- Protective equipment for firefighters** : Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). Water may be used to cool containers to minimize pressure build-up.
- Fire and explosion conditions** : Vapor concentrations in enclosed areas may ignite explosively. Product may ignite if heated in excess of its flash point. Vapors may travel to sources of ignition and flashback. Closed container, may burst when exposed to extreme heat. Empty containers may contain ignitable vapors.



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SECTION 6 - ACCIDENTAL RELEASE MEASURES

Use appropriate protective equipment. Avoid contact with material. Remove sources of ignition immediately. Stop flow of material if safe to do so. Contain spill and keep out of water courses. Ventilate area.

SECTION 7 - HANDLING AND STORAGE

Prevent inhalation of vapor, ingestion, and contact with skin eyes and clothing. Keep container closed when not in use. Precautions also apply to emptied containers. To prevent generation of static discharges, use bonding/grounding connection when pouring liquid. Extinguish all ignition sources including pilot lights, non-explosion proof motors and electrical equipment until vapors dissipate. Personal protective equipment must be worn during maintenance or repair of contaminated mixer, reactor, or other equipment. Keep container closed when not in use. Vapor may migrate to sources of ignition. Do not smoke, weld, generate sparks, or use flame near container. Store in sealed containers in a cool, dry, ventilated warehouse location.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment

- Respiratory protection : Wear appropriate, properly fitted NIOSH/MSHA approved organic vapor or supplied air respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS. Follow manufacturer's directions for respirator use.
- Hand protection : Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure.
- Eye protection : Wear appropriate eye protection. Wear chemical safety goggles and/or face shield to prevent eye contact. Do not wear contact lenses. Do not touch eyes with contaminated body parts or materials. Have eye washing facilities readily available.
- Protective measures : Use professional judgment in the selection, care, and use. Inspect and replace equipment at regular intervals.
- Engineering measures : Use only in well ventilated areas. Provide maximum ventilation in enclosed areas. Use local exhaust when the general ventilation is inadequate.

Exposure Limits

Chemical Name	CAS Number	Regulation	Limit	Form
Acetone	67-64-1	ACGIH TWA: ACGIH STEL: OSHA PEL:	500 ppm 750 ppm 2,400 mg/m3	
Toluene	108-88-3	ACGIH TWA: OSHA TWA:	20 ppm 200 ppm	
Ethylbenzene	100-41-4	ACGIH TWA: ACGIH STEL: OSHA PEL:	100 ppm 125 ppm 435 mg/m3	
Lead oxide	1317-36-8	ACGIH TWA:	0.05 mg/m3	as Pb

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Chemical Name	CAS Number	Regulation	Limit	Form
Cadmium oxide	1306-19-0	ACGIH TWA:	0.002 mg/m3	Respirable fraction.as
		Cd ACGIH TWA:	0.01 mg/m3	as Cd

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form	: Liquid
Color	: Yellow
Odor	: Aromatic Solvent
pH	: Not available.
Vapour pressure	: Not available.
Vapor density	: Heavier than air
Melting point/range	: Not available.
Freezing point	: Not available.
Boiling point/range	: Not available.
Water solubility	: Negligible
Specific Gravity	: 1.12
% Volatile Weight	: 81 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid	: Oxidizing agents.Strong acids.Strong bases.
Stability	: Stable under normal conditions. Avoid welding arcs, flames or other high temperature sources.
Hazardous polymerization	: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toluene, CAS-No.: 108-88-3	
Acute oral toxicity (LD-50 oral)	2,600 - 7,500 mg/kg (Rat) 5,000 mg/kg (Rat)
Acute inhalation toxicity (LC-50)	26,700 mg/l for 1 h (Rat) 400 mg/l for 24 h (Mouse) 5,320 mg/l for 8 h (Mouse)
Acute dermal toxicity (LD-50 dermal)	12,124 mg/kg (Rabbit)
Ethylbenzene, CAS-No.: 100-41-4	
Acute oral toxicity (LD-50 oral)	5,460 mg/kg (Rat) 3,500 mg/kg (Rat)
Acute dermal toxicity (LD-50 dermal)	17,800 mg/kg (Rabbit)
Formaldehyde, CAS-No.: 50-00-0	
Acute oral toxicity (LD-50 oral)	800 mg/kg (Rat) 260 mg/kg (Guinea pig) 100 mg/kg (Rat) 42 mg/kg (Mouse)
Acute inhalation toxicity (LC-50)	0.82 mg/l for 30 min (Rat) 0.48 mg/l for 4 h (Rat) 0.414 mg/l for 4 h (Mouse) 0.4 mg/l for 2 h (Mouse)

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Cadmium oxide, CAS-No.: 1306-19-0

Acute oral toxicity (LD-50 oral)

72 mg/kg (Rat) 72 mg/kg (Mouse)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Class : D001: Reportable Quantity = 100 lbs. (Characteristic of ignitability)

This classification applies only to the material as it was originally produced.

Disposal Method : Subject to hazardous waste treatment, storage, and disposal requirements under RCRA. Recycle or incinerate waste at EPA approved facility or dispose of in compliance with federal, state and local regulations.

SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:

ADHESIVES, 3, UN1133, PG II

SECTION 15 - REGULATORY INFORMATION**North American Inventories:**

All components are listed or exempt from the TSCA inventory.

This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

U.S. Federal Regulations:SARA 313 Components : Toluene 108-88-3
Ethylbenzene 100-41-4SARA 311/312 Hazards : Acute Health Hazard
Fire Hazard

OSHA Hazardous Components :

Acetone 67-64-1
Toluene 108-88-3
Ethylbenzene 100-41-4
Lead oxide 1317-36-8
Cadmium oxide 1306-19-0OSHA Status: Considered : Irritant
hazardous based on the
following criteria:

OSHA Flammability : Not Regulated

Regulatory VOC (less water and : 250 g/l
exempt solvent)

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VOC Method 310 : 5 %

U.S. State Regulations:

MASS RTK Components	:	Acetone	67-64-1
		Toluene	108-88-3
		Formaldehyde	50-00-0
		Cadmium oxide	1306-19-0
Penn RTK Components	:	Halogenated Aromatic Hydrocarbon	NJ TSRN# 51721300-5382P
		Acetone	67-64-1
		Chloroprene Polymer	NJ TSRN# 51721300-6320P
		Toluene	108-88-3
		Aromatic hydrocarbon resin	NJ TSRN# 51721300-5274P
NJ RTK Components	:	Halogenated Aromatic Hydrocarbon	NJ TSRN# 51721300-5382P
		Acetone	67-64-1
		Chloroprene Polymer	NJ TSRN# 51721300-6320P
		Toluene	108-88-3
		Aromatic hydrocarbon resin	NJ TSRN# 51721300-5274P

WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm:

108-88-3	Toluene
100-41-4	Ethylbenzene

SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	2
Flammability	3
Reactivity	0
PPE	

0 = Minimum
 1 = Slight
 2 = Moderate
 3 = Serious
 4 = Severe

Further information:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

Prepared by: Rich Mikol

Legend

ACGIH - American Conference of Governmental Hygienists	PEL - Permissible Exposure Limit
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act	RCRA - Resource Conservation and Recovery Act
DOT - Department of Transportation	RTK - Right To Know
DSL - Domestic Substance List	SARA - Superfund Amendments and Reauthorization Act
EPA - Environmental Protection Agency	STEL - Short Term Exposure Limit
HMIS - Hazardous Materials Information System	TLV - Threshold Limit Value
IARC - International Agency for Research on Cancer	TSCA - Toxic Substances Control Act
MSHA - Mine Safety Health Administration	TWA - Time Weighted Average
NDSL - Non-Domestic Substance List	V - Volume
NIOSH - National Institute for Occupational Safety and Health	VOC - Volatile Organic Compound



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NTP - National Toxicology Program

WHMIS - Workplace Hazardous Materials Information System

OSHA - Occupational Safety and Health Administration