

<b>Section 1: Product Information</b>	
Name:	<b>PC-3 Glass Primer</b>
Description:	Formulated Acryl Resin
Use:	Primer for Auto Glass
MSDS number:	YHAI-19
Appearance and odor:	Black liquid; Sweet odor
Emergency telephone:	1-800-424-9300 CHEMTREC
Product information:	859-879-2853
Effective date:	8/1/2008
Supersedes date:	5/25/2008

<b>Section 2: Hazardous Ingredients</b>		
A hazard evaluation of this product has been performed. The components listed below are identified as hazardous chemicals under the criteria of the OSHA hazard communication standard (29 CFR 1910.1200).		
<b>Common name / Chemical name</b>	<b>CAS number</b>	<b>Approximate %</b>
Methyl Ethyl Ketone/2-Butanone	78-93-3	40 - 50
Carbon black	1333-86-4	5-10
Ethyl Acetate/Acetic Acid Ethyl Ester	141-78-6	20 - 25
Methanol	67-56-1	1

<b>Section 3: Emergency and First Aid Procedure</b>	
<b>Eye contact:</b> Flush eyes with water for at least 15 minutes. Lift eye lids frequently. Get prompt medical attention.	
<b>Skin contact:</b> Remove contaminated clothing and shoes. Wash affected area with soap and water. If irritation develops, consult a physician. Wash contaminated clothing separately before reuse.	
<b>Inhalation:</b> Remove to fresh air. If symptoms develop, seek immediate medical attention. If not breathing, give artificial respiration, preferably mouth to mouth.	
<b>Ingestion:</b> Seek medical attention. Unless advised otherwise, induce vomiting by giving either syrup of ipecac followed by 2 glasses of water or by sticking finger down throat.	
<b>Note to physician:</b> <i>Treatment should be directed at preventing absorption, administering to the symptoms as they occur, and providing supportive therapy.</i>	

<b>Section 4: Health Effects Summary</b>			
<b>Primary route(s) of exposure:</b>	<b>Eye - yes</b>	<b>Skin - yes</b>	<b>Inhalation - yes</b>
<b>Eye contact:</b>	Can cause mild to moderate irritation. Corneal opacification and vascularization can occur.		
<b>Skin contact:</b>	Can cause mild to moderate irritation. Prolonged or repeated contact can defat the skin, cause irritation, and lead to the development of dermatitis.		
<b>Inhalation:</b>	Can cause irritation to the nose, throat, and upper respiratory tract.		

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Inhalation can cause dizziness, headaches, and incoordination.

Nausea, vomiting, and gastrointestinal upset can occur.

Can cause wheezing, coughing, shortness of breath, and the feeling of tightness in the chest.

**Ingestion:**

Ingestion can cause mild to moderate irritation of the mouth, throat, and esophagus.

Can cause nausea, vomiting, and gastrointestinal upset.

Dizziness, faintness, drowsiness, and incoordination (ataxia) can occur.

**Additional effects (target organs):**

Liver.

Kidney.

Blood and/or hematopoietic system.

Respirator system.

Eye.

Skin.

**Aggravation of existing conditions:**

Liver.

Kidney.

Blood and/or hematopoietic system.

Respiratory system.

Skin.

**Section 5: Toxicologic Information****Methyl Ethyl Ketone****Toxic effects:**

Contact with eyes or skin can cause irritation. Ingestion may cause gastrointestinal irritation. Ingestion or inhalation may cause central nervous system depression, and kidney and liver damage. Spleen damage and anemia have also been reported.

**Acute toxicity studies:**

Oral-rat LD50:3,980 mg/kg

**Carcinogenicity - listed by:**

ACGIH: no IARC monographs: no NTP annual report: no OSHA: no

**Carbon black****Toxic effects:**

Can cause mechanical irritation and discoloration of the eyes and skin. Inhalation can cause irritation to the nose and respiratory tract. Prolonged and repeated inhalation can affect the pulmonary system causing difficulty in breathing, chest pain, and general weakness.

**Carcinogenicity - listed by:**

ACGIH: no IARC monographs: 2B NTP annual report: no OSHA: no

**Ethyl Acetate****Toxic effects:**

Contact with eyes or skin can cause irritation. Ingestion may cause gastrointestinal irritation. Ingestion or inhalation may cause central nervous system depression, and kidney and liver damage. Spleen damage and anemia have also been reported.

**Acute toxicity studies:**

Oral-rat LD50:5620 mg/kg

Oral-mouse LD50:4100 mg/kg

Oral-rabbit LD50:4935 mg/kg

Inhalation-rat LC50:1600 ppm/8-hours

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Inhalation-mouse LC50:45 g/m3/2-hours

**Other toxicity studies:**

Positive results for mutagenic activities have been observed in several test systems, namely in yeast cells and hamster fibroblasts (cytogenic analysis).

**Carcinogenicity - listed by:**

ACGIH: no IARC monographs: no NTP annual report: no OSHA: no

**Section 6: Occupational Control Procedures****Eye protection:**

Wear chemical splash goggles.

An eye wash facility should be readily available.

**Skin protection:**

Wear protective clothing and appropriate impervious gloves. Because a variety of protective gloves exist, always consult glove manufacturer to determine the proper type for specific operation.

**Respiratory protection:**

Avoid breathing vapor and/or mist.

When established airborne exposure limits are surpassed (see airborne exposure limits in this section), wear NIOSH/MSHA approved equipment. Determine the appropriate type equipment for specific application by consulting the respirator manufacturer. Observe the respirator use limitations specified by NIOSH/MSHA or the manufacturer.

High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator. In addition, respiratory protection programs must be in compliance with 29 CFR 1910.134.

**Ventilation:**

Maintain airborne concentration below the established exposure limits (See airborne exposure limits in this section). General (dilution) ventilation may be acceptable. However, local exhaust ventilation is recommended when vapors, mists, or dusts can be released.

**Personal hygiene:**

Wash thoroughly after handling, especially before eating, drinking, smoking, or using restroom facilities.

Wash contaminated goggles, faceshield, and gloves. Professionally launder contaminated clothing. Discard contaminated shoes.

**Airborne exposure limits*****Methyl Ethyl Ketone***

ACGIH TLV-TWA: 200 ppm 590 mg/m3

OSHA PEL: 200 ppm 590 mg/m3

**Airborne exposure limits*****Ethyl acetate***

ACGIH TLV-TWA: 400 ppm 1440 mg/m3

OSHA PEL: 400 ppm 1400 mg/m3

**Airborne exposure limits*****Carbon black***

ACGIH TLV-TWA: 3.5 mg/m3

OSHA PEL: 3.5 mg/m3

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Section 7:	Fire Protection Information	
<b>Flash point:</b>	27 deg. F, -3 deg. C	Test method: seta flash closed cup
<b>Explosive limits:</b>	LEL (%): not established	UEL (%): not established
<b>Auto-ignition temperature:</b>	not established	
<b>Extinguishing media:</b>		
<i>Small fires</i> : use foam, carbon dioxide, dry chemical, or water spray.		
<i>Large fires</i> : use foam, water spray, or fog.		
<b>Special fire fighting procedures:</b>	Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH approved positive pressure self-contained breathing apparatus (SCBA) and full protective clothing.	
<b>Unusual fire and explosion hazards:</b>	When exposed to flames or high temperatures encountered during fire conditions, sealed containers may rupture because of the build up of internal pressure. Cool containers with water. Vapors may be heavier than air and may travel considerable distances from the material handling point. Vapors can be ignited by a spark, flame, cigarette, electric motor, static discharge, engine, pilot light, hot surface, or other ignition source. May liberate irritating or toxic vapors during combustion or decomposition.	

Section 8:	Reactivity Data	
<b>Stable under normal conditions of storage and use:</b>	yes	
<b>Materials to avoid:</b>		
Oxidizing agents.	Acides.	Water
Strong Bases	Amines.	
<b>Hazardous polymerization:</b>	Hazardous polymerization will not occur.	
<b>Thermal decomposition products:</b>	If heated to high temperatures, this product may emit the following compounds: Flammable solvent vapors. Smoke, soot, & toxic fumes (e.g. carbon dioxide & carbon monoxide).	

Section 9:	Spill and Leak Procedures	
<b>Response to spills:</b>	Stop discharge, if it can be performed safely, and contain material. If a substantial quantity is spilled, use an absorbent such as fuller's earth, clay, or other appropriate synthetic absorbent. Place contaminated material in a suitable container for disposal. Appropriate safety measures and protective equipment should be used (see section 6). Do not flush to streams, rivers, or other bodies of water.	
<b>Precautions:</b>	Eliminate all sources of ignition. If the airborne concentration exceeds established exposure limits (TLV or PEL), or if high airborne concentrations can occur, evacuate employees and ventilate the area. A supplied air respirator or self-contained breathing apparatus (SCBA), should be used for entry into enclosed spaces, or in areas with inadequate ventilation.	
<b>Disposal methods:</b>	If discarded in its original unused form, this product exhibits the characteristics of a RCRA hazardous waste as defined under: 40 CFR 261.21 (i.e. ignitable - D001)	

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Therefore, it must be managed (stored/ treated/disposed/etc.) at a properly permitted facility, in compliance with all applicable federal, state, and local requirements. Be sure to contact the appropriate government environmental agencies if further guidance is required.  
Of the methods of disposal currently available, it is recommended that an alternative be selected according to the waste management hierarchy.

#### Section 10: Special Precautions

##### Recommended storage practice and conditions:

Store in cool, dry, well ventilated area. Do not store near heat or ignition sources, or in direct sunlight. Always keep containers tightly closed to avoid contamination.

##### Special warning:

Hot organic chemical vapors or mists can suddenly and without warning combust when mixed with air. Ignition can occur at typical elevated temperature process conditions. Any proposed use in such processes should be evaluated thoroughly to assure safe operating conditions.

##### Container use procedures:

Containers should be supported and grounded before opening, dispensing, mixing, pouring, and emptying. Open with no-sparking tools. If the container is warm, open bung slowly to release internal pressure.

##### Empty container precautions:

This container is hazardous when empty. Do not use heat, sparks, open flames, torches, or cigarettes on or near empty container. Empty containers can retain product residues. Do not reuse empty container for food, clothing, or products for human or animal consumption or where skin contact may occur.

##### Supplemental Section 10 information:

**NFPA Rating - Health: 2, Flammability: 4, Instability: 0**

**HMIS Classification - Health: 2; Flammability: 3; Reactivity: 0**

#### Section 11: Physical Data

% Non-volatile (by weight):	28
pH:	not applicable
Vapor density (air=1):	not established
Solubility in water:	insoluble
Evaporation rate (n-butyl acetate=1):	not established
Vapor pressure (mmHg @25oC):	not established
Specific gravity (water=1):	1
Approximate boiling point:	not established

*Note: The physical data presented above are typical values and should not be construed as a specification.*

#### Section 12: Label and Transportation Information

DOT shipping name: adhesive, containing a flammable liquid  
DOT label: flammable liquid  
DOT identification No.: UN 1133

##### Supplemental section 12 information:

*For Canadian shipments: not established.*

**HM-181, IATA/ICAO and IMO - proper shipping name: adhesive, containing a flammable liquid; Hazard class: 3 (IATA HM-181), 3.2 (IMO); subsidiary risk: none; UN No.: 1133;**

**Packaging group: II; label(s): flammable liquid.**

**Section 13: Regulatory Information****Toxic substance control act (TSCA)**

Chemical component(s) in this product are on the section 8 (b) chemical substance inventory list (40 CFR 710).

**SARA Title III information****Section 313 - toxic chemicals**

Pursuant to section 313, this product does not contain a toxic chemical in excess of 1 percent of the mixture (0.1 percent, if the listed toxic chemical is a carcinogen).

**Section 302 - extremely hazardous substances**

Pursuant to section 302, this product does not contain an extremely hazardous substance.

**Section 311/312 - hazard categories**

Pursuant to section 311/312, the physical and health hazard categories for this product are identified below:

**Fire hazard:** yes

**Sudden release of pressure hazard:** no

**Reactivity hazard:** no

**Immediate (acute) health hazard:** yes

**Delayed (chronic) health hazard:** yes

Hazardous materials information review regulation - Canada

**This material safety data sheet provides information that complies with the requirements set forth under the Canadian workplace hazardous materials information system (WHMIS).**

**Claim for exemption registry No.:** not applicable

**Filing date for claim:** not applicable

**Section 14: Users Responsibility**

A bulletin such as this cannot be expected to cover all possible individual situation. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions - in addition to those described herein - are required. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be.

Disclaimer of liability

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations of warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

If you have questions with regard to health effects, or other information presented in this document, contact:

Neil Dalton

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Yokohama Tire Corporation

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Salem, VA 24153

Tel.) 540-375-8209

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State of California addendum to the material safety data sheet

Product name: PC-3 Glass Primer

Effective date: 8/1/2008

The California safe drinking water and toxic enforcement act of 1986, otherwise known as proposition 65, requires that persons potentially exposed to certain substances be made aware of the chronic effects of the substances specified by the state of California.

This product contains the following substances known to the state of California to cause cancer, birth defects, or other reproductive harm.

Ingredients

Carbon Black

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Commonwealth of Pennsylvania addendum to the material safety data sheet

Product name: PC-3 Glass Primer

Effective date: 8/1/2008

All of the materials in this product that are required by the commonwealth of Pennsylvania to be identified are listed below. In addition, some of the materials identified may have been placed by the commonwealth of Pennsylvania on their hazardous substance list.

<u>Ingredients</u>	<u>CAS Number</u>	<u>Weight %</u>
Ethyl acetate / Acetic acid ethyl ester	141-78-6	20-25
Non-hazardous trade secret ingredient(s)	Proprietary	10-30
Carbon black	1333-86-4	5-10
Butyl acetate, N- / 1-Butyl acetate	123-86-4	1-5

The specific chemical identity of any substance not identified with a chemical abstract service number is being held as a trade secret.