

**Section 1: Product Information**

**Name:** RC-50E Body Primer  
**Description:** Formulated polyurethane  
**Use:** Primer for auto body  
**MSDS number:** YHAI-61  
**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:** 1/2/2006

**Section 2: Hazardous Ingredients**

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).

<u>Common name / Chemical name</u>	<u>CAS number</u>	<u>Approximate %</u>
Ethyl acetate/Acetic acid ethyl ester	141-78-6	60- 90
Tris (4-isocyanatephenyl) Thiophosphate	4151-51-3	5-10
Carbon black	1333-86-4	5-10
Butyl acetate, N- / 1-Butyl acetate	123-86-4	1-5
Methylene bis-phenyl isocyanate/	101-68-8	0.9
Diphenyl-methane diisocyanate		

**Section 3: Emergency and First Aid Procedure**
**Eye contact:**

Flush eyes with water for at least 15 minutes. Lift eyelids frequently. Get prompt medical attention.

**Skin contact:**

Remove contaminated clothing and shoes. Wash affected area with soap and water. If irritation develops, consult a physician. Wash contaminated clothing separately before reuse.

**Inhalation:**

Remove to fresh air. If symptoms develop, seek immediate medical attention. If not breathing, give artificial respiration, preferably mouth to mouth.

**Ingestion:**

Do not induce vomiting. Seek medical attention. Do not give anything by mouth if the person is drowsy, unconscious, or has no gag reflex.

Ingestion creates a high risk of aspiration and subsequent chemical pneumonitis. However, if more than one milliliter per kilogram of body weight of the hydrocarbon was ingested, careful emesis or lavage is recommended because of the toxic effects produced by the hydrocarbon.

**Note to physician:**

Bronchial constriction may develop after extensive exposure to isocyanate, even in individuals who have not been shown to be previously sensitized. Use bronchodilators.

**Section 4: Health Effects Summary**

**Primary route(s) of exposure:**      **Eye - yes**                      **Skin - yes**                      **Inhalation - yes**

**Eye contact:**

Can cause mild to moderate irritation.  
 Corneal opacification and vascularization can occur.  
 Vapors and/or mists can cause mild to moderate irritation.

**Skin contact:**

Can cause mild to moderate irritation.  
 Prolonged or repeated contact can defat the skin, cause irritation, and lead to the development of dermatitis.  
 Contact can cause hypersensitivity (i.e., allergic) reactions in susceptible individuals.

**Inhalation:**

Can cause irritation to the nose, throat, and upper respiratory tract.  
 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.  
 Exposure can cause respiratory hypersensitivity (i.e., allergic) reactions in susceptible individuals.

**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:**

Depending on the route, frequency, and duration of exposure, toxicity may effect in the following organs and/or systems:

Liver.  
 Kidney.  
 Blood and/or hematopoietic system.  
 Respirator system.  
 Skin.  
 Immune system (e.g. allergic reactions).

**Aggravation of existing conditions:**

Some of the components in this product may aggravate existing medical conditions. Individuals with medical conditions involving the following organ(s) and/or system(s) should take appropriate precautions when this product:

Liver.  
 Kidney.  
 Blood and/or hematopoietic system.  
 Respiratory system.  
 Skin.  
 Immune system and/or specific chemical allergies.

Always wear appropriate protective equipment, as recommended by your industrial hygiene or safety personnel, when exposure to this product can occur.

**Section 5: Toxicologic Information**

The information in this section, though detailed, can be subject to misinterpretation. Therefore, it is essential individuals trained in its evaluation interpret the following information.

**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
Inhalation-mouse	LC50:	45 g/m <sup>3</sup> /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

**Tris (4-isocyanatophenyl) thiophosphate****Toxic effects:**

The toxicity of isocyanate-containing compounds is generally considered to be similar. Refer to the toxicity data for monomeric MDI, which are presented in this section, for detailed health effects information.

**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

**Butyl acetate, N-****Toxic effects:**

Vapors and liquid are irritating to the eyes. Skin contact, especially if prolonged or repeated, can cause dermatitis. Can be absorbed causing systemic effects. Ingestion can cause abdominal pain, sore throat, nausea vomiting, headache, and drowsiness. Vapors are irritating to the upper respiratory tract and can cause coughing, chest pain, and shortness of breath. Kidney and blood changes have been reported. Chronic exposure is reported to cause conjunctival irritation, feeling of chest constriction, and coughing.

**Acute toxicity studies:**

Oral-rat	LD50:	13,100 mg/kg
Oral-mouse	LD50:	2060 mg/kg
Oral-guinea pig	LD50:	4700 mg/kg
Inhalation-rat	LC50:	2000 ppm/4-hours
Inhalation-mouse	LC50:	6000 mg/m <sup>3</sup> /2-hours

**Carcinogenicity - listed by:**

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



**RC-50E MSDS**

**Airborne exposure limits**

**Ethyl acetate**

ACGIH TLV-TWA:	400 ppm	1440 mg/m3
OSHA PEL:	400 ppm	1400 mg/m3

**Tris (4-isocyanatophenyl) thiophosphate**

ACGIH TLV-TWA:	not established
OSHA PEL:	not established

**Carbon black**

ACGIH TLV-TWA:	3.5 mg/m3
OSHA PEL:	3.5 mg/m3

**Butyl acetate, N-**

ACGIHTLV-TWA:	150 ppm	713 mg/m3
STEL:	200 ppm	950 mg/m3
OSHA PEL:	150 ppm	710 mg/m3
STEL:	200 ppm	950 mg/m3

**Methylene bisphenyl isocyanate**

ACGIH TLV-TWA:	0.005 ppm	0.051 mg/m3	
STEL:	ppm		
OSHA PEL:	0.02 ppm	0.2 mg/m3	ceiling

*Note: Because of this product's physical composition, the release or generation of a dust is not expected to occur under normal conditions of use.*

**Section 7: Fire Protection Information**

<b>Flash point:</b>	24oF, -4oC	Test method: setaflash closed cup
<b>Explosive limits:</b>	LEL (%) - not established	UEL (%) - not established
<b>Auto-ignition temperature:</b>	not established	

**Extinguishing media:**

*Small fires:* use dry chemical, carbon dioxide, halon, water spray, or foam.

*Large fires:* use water spray, fog, or alcohol foam.

**Special fire fighting procedures:**

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.

**Unusual fire and explosion hazards:**

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. A spark, flame, cigarette, electric motor, static discharge, engine, pilot light, hot surface, or other ignition source can ignite vapors.

**Section 8: Reactivity Data**

**Stable under normal conditions of storage and use:** yes

**Materials to avoid:**

- Amines.
- Acids.
- Strong bases.
- Water.

**Hazardous polymerization:**

Hazardous polymerization will not occur.

## RC-50E MSDS

### Thermal decomposition products:

If heated to high temperatures, this product may emit the following compounds:

Flammable solvent vapors.

Isocyanate containing compounds.

Oxides of nitrogen.

Oxides of sulfur.

Phosgene.

Smoke, soot, & toxic fumes (e.g. carbon dioxide & carbon monoxide).

## Section 9: Spill and Leak Procedures

### Response to spills:

Stop discharge, if it can be performed safely, and contain material. 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.

### Precautions:

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.

### Disposal methods:

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)

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 appropriated government environmental agencies if further guidance is required.

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.

Do not store above: 95oF, 35oC

### 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:*

**HMIS classification - health: 2\*; flammability: 3; reactivity: 0.**

\* = chronic effects

## RC-50E MSDS

### Section 11: Physical Data

<b>% Non-volatile (by weight):</b>	< 33
<b>pH:</b>	not applicable
<b>Vapor density (air=1):</b>	not established
<b>Solubility in water:</b>	insoluble
<b>Evaporation rate (n-butyl acetate=1)</b>	> 1
<b>Vapor pressure (mmHg @25oC):</b>	not established
<b>Specific gravity (water=1);</b>	> 1
<b>Approximate boiling point:</b>	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

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

*Supplemental section 12 information:*

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 listing (40 CFR 710).

SARA title information

Section 313 - toxic chemicals

Pursuant to section 313 of SARA title", 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 of SARA title", this product does not contain an extremely hazardous substance.

Section 311/312 - hazard categories

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

**Fire hazard:** yes

**Sudden release of pressure hazard:** yes

**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 requirement set forth under the Canadian workplace hazardous materials information system (WHMIS).

Claim for exemption registry No.: not applicable

Expiration date: not applicable

**Section 14: Users Responsibility**

A bulletin such as this cannot be expected to cover all possible individual situations. 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 that 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.

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

Neil Dalton  
Director of Environment, Health and Safety  
Yokohama Tire Corporation  
1500 Indiana Avenue  
Salem, VA 24153  
Tel.) 540-375-8209  
Fax.)540-375-0226

**RC-50NM MSDS**

State of California addendum to the material safety data sheet

Product name: **RC-50E Body 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 substances "known to the state of California to cause cancer, birth defects or other reproductive harm."

Ingredients

Carbon Black

**RC-50NM MSDS**

Commonwealth of Pennsylvania addendum to the material safety data sheet

Product name: **RC-50E Body 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.

**Ingredients**

	<b><u>CAS Number</u></b>	<b><u>Weight %</u></b>
Ethyl acetate / Acetic acid ethyl ester	141-78-6	60 - 90
Non-hazardous trade secret ingredient(s)	Proprietary	5-10
Tris(4-isocyanatophenyl) thiophosphate	4151-51-3	5-10
Carbon black	1333-86-4	5-10
Butyl acetate, N- / 1-Butyl acetate	123-86-4	1-5
Methylene bisphenyl isocyanate / diphenylmethane diisocyanate	101-68-8	0.9

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