

**Section 1. Product and Company Information**

Product Name **TPO Primer**  
 CHEM LINK INC.  
 353 E. Lyons Street  
 Schoolcraft, MI 49087, USA  
 Tel: 269-679-4440  
 Fax: 269-679-4448

**EMERGENCY CONTACTS**

|                  |                                |
|------------------|--------------------------------|
| Call Chemtrec:   | USA: 1-800-424-9300            |
| International:   | (703) 527-3887                 |
| Product Use:     | Primer, mixture                |
| Chemical Family: | Mixture                        |
| SDS Prepared:    | 29-May-15                      |
| SDS Prepared by: | CHEM LINK Product Safety Group |

**Section 2. Hazards Identification****Hazardous classification:**

Flammable Liquids - Category 2  
 Skin Corrosion/Irritation - Category 2  
 Serious Eye Damage/Eye Irritation - Category 2A  
 Skin Sensitization - Category 1A  
 Carcinogenicity - Category 2  
 Specific Target Organ Toxicity - Single Exposure - Category 3  
 Signal Word: **Danger**

**Hazard Statements:**

Highly flammable liquid and vapor  
 Causes skin irritation  
 Causes serious eye irritation  
 May cause allergic skin reaction  
 Suspected of causing cancer  
 May cause drowsiness or dizziness

**Precautionary Statements:****Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Keep container tightly closed  
 Keep away from heat/sparks/open flame/hot surfaces - No smoking  
 Ground/Bond container and receiving equipment  
 Use explosion-proof electrical/ventilating/lighting equipment  
 Take precautionary measures against static discharge  
 Use only non-sparking tools  
 Use only outdoors or in a well-ventilated area  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Avoid breathing dust/fume/gas/mist/vapours/spray  
 Wash thoroughly after handling  
 Contaminated work clothing must not be allowed out of the workplace

**Response**

In case of fire: Use appropriate media to extinguish  
 IF exposed or concerned: Get medical advice/attention  
 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER if you feel unwell

**Label: Pictogram**

**Response (continued)****TPO Primer**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower

If skin irritation or rash occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

Specific treatment (see label)

**Storage**

Store in a well-ventilated place. Keep container tightly closed

Keep cool

Store locked up

**Disposal**

Dispose of contents/container in accordance with local/regional/national/international regulations

Carcinogenicity: This product contains a component known in the state of California to cause Cancer. Toluene

**Section 3. Composition / Information on Ingredients****HAZARDOUS INGREDIENTS**

| <u>Ingredient Name</u>                      | <u>CAS Number</u> | <u>Concentration</u> |
|---|-------------------|----------------------|
| Solvent naphtha, petroleum, light aliphatic | 64742-89-8        | 10-30%               |
| Isophorone Diisocyanate                     | Trade Secret      | 0.1-1%               |
| Toluene                                     | 108-88-3          | 40-70%               |
| Chlorinated polypropylene                   | Trade Secret      | 0.5-1.5%             |
| Heat reactive phenolic resin                | Trade Secret      | 0.1-1%               |
| Isophorondiamine-isobutyraldimine           | Trade Secret      | 0.1-1%               |

**Section 4. First Aid Measures****Description of Necessary Measures**

IF exposed or concerned: Get medical advice/attention.

**Inhalation**

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

**Skin**

Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.

**Eyes**

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Ingestion**

If swallowed, get medical attention.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically and supportively.

**Most Important Symptoms/Effects****Acute**

Causes skin irritation. Causes serious eye irritation. May cause allergic skin reaction. May cause drowsiness or dizziness.

**Delayed:** May cause allergic skin reaction. Suspected of causing cancer.

**Section 5. Fire Fighting Measures****Extinguishing Media****Suitable Extinguishing Media**

Dry chemical, foam or carbon dioxide. Water may be ineffective.

**Unsuitable Extinguishing Media**

Do not use high-pressure water streams.

**Special Hazards Arising from the Chemical**

Highly flammable liquid and vapor.

**Hazardous Combustion Products**

Carbon monoxide, carbon dioxide, oxides of nitrogen, aldehydes

**Fire Fighting Measures**

Move container from fire area if it can be done without risk.

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**Section 6. Accidental release measures****Personal Precautions, Protective Equipment and Emergency Procedures**

Wear personal protective clothing and equipment, see Section 8.

**Methods and Materials for Containment and Cleaning Up**

Remove all sources of ignition. Avoid breathing vapors. Wear self-contained breathing apparatus and protective clothing. Ventilate the area. Use non-sparking tools. Large spills: Dike for later disposal. Cleanup Methods: Absorb with sand or other non-combustible material. Use clean non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal. Dispose in accordance with all applicable federal, state/regional and local laws and regulations.

**Environmental Precautions**

Avoid release to the environment. Collect spillage.

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**Section 7. Handling and Storage**

Handling  
Precautions: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. KEEP OUT OF REACH OF CHILDREN.

**Conditions for Safe Storage, Including any Incompatibilities**

Store in a well-ventilated place. Keep container tightly closed

Keep cool

Store locked up

Keep dry. Keep away from heat

empty. Empty containers may contain product residue.

**Incompatible Materials**

Strong oxidizing agents, acids, bases

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**Section 8. Exposure Controls / Personal Protection****Component Exposure Limits**

|                |   |  |
|----------------|---|--|
| <b>Toluene</b> | 108-88-3  |  |
| ACGIH:         | 20 ppm TWA  |  |
| NIOSH:         | 100 ppm TWA; 375 mg/m <sup>3</sup> TWA 150 ppm STEL; 560 mg/m <sup>3</sup> STEL |  |
|                | 500 ppm IDLH  |  |
| Europe:        | 50 ppm TWA; 192 mg/m <sup>3</sup> TWA   | 100 ppm STEL; 384 mg/m <sup>3</sup> STEL |
|                | Possibility of significant uptake through the skin                              |  |
| OSHA (US):     | 200 ppm TWA   | 300 ppm Ceiling                          |
| Mexico:        | 50 ppm TWA LMPE-PPT; 188 mg/m <sup>3</sup> TWA LMPE-PPT                         |  |
|                | Skin - potential for cutaneous absorption                                       |  |

**Biological limit value**

There are no biological limit values for any of this product's components.

**Engineering Controls**

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

**Individual Protection Measures, such as Personal Protective Equipment****Eye/face protection**

Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin Protection**

Wear appropriate chemical resistant clothing. Wear protective shoes.

**Respiratory Protection**

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**Glove Recommendations**

Wear appropriate chemical resistant gloves.

**Section 9. Physical and Chemical Properties**

|                              |                      |  |                         |
|------------------------------|----------------------|--|-------------------------|
| <b>Appearance</b>            | orange to red liquid | <b>Physical State</b>                        | liquid                  |
| <b>Odor</b>                  | characteristic       | <b>Color</b>                                 | orange to red liquid    |
| <b>Odor Threshold</b>        | Not available        | <b>pH</b>                                    | Not available           |
| <b>Melting Point</b>         | -95 °C(-139° F)      | <b>Boiling Point</b>                         | 111 - 141 °C(232-259°F) |
| <b>Freezing point</b>        | Not available        | <b>Evaporation Rate 2.7</b>                  |                         |
| <b>Boiling Point Range</b>   | Not available        | <b>Flammability (solid, gas)</b>             | Not available           |
| <b>Autoignition</b>          | 500 °C(932°F)        | <b>Flash Point</b>                           | 4 °C(40°F)              |
| <b>Lower Explosive Limit</b> | 0.9                  | <b>Decomposition</b>                         | Not available           |
| <b>Upper Explosive Limit</b> | 6.7                  | <b>Vapor Pressure</b>                        | 19.3 mmHg               |
| <b>Vapor Density (air=1)</b> | 3.4                  | <b>Specific Gravity (water=1)</b>            | Not available           |
| <b>Water Solubility</b>      | Insoluble            | <b>Partition coefficient: noctanol/water</b> | Not available           |
| <b>Viscosity</b>             | <200 cps             | <b>Solubility (Other)</b>                    | Not available           |
| <b>Density</b>               | 0.75 - 0.81          | <b>VOC</b>                                   | 645 g/L                 |

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**Section 10. Stability and Reactivity****Reactivity**

No reactivity hazard is expected.

**Chemical Stability**

Stable under normal conditions of use.

**Possibility of Hazardous Reactions**

Will not polymerize.

**Conditions to Avoid**

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

**Incompatible Materials**

Strong oxidizing agents, acids, bases

**Hazardous decomposition products**

Carbon monoxide, carbon dioxide, aldehydes

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**Section 11. Toxicological Information****Information on Likely Routes of Exposure****Inhalation**

May cause drowsiness or dizziness.

**Skin Contact**

May cause allergic skin reaction. Causes skin irritation.

**Eye Contact**

Causes serious eye irritation.

**Ingestion**

No information on significant adverse effects.

**Acute and Chronic Toxicity****Component Analysis - LD50/LC50**

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

Oral LD50 Rat >2000 mg/kg

Dermal LD50 Rat >2000 mg/kg

Inhalation Rat >5000 ppm 1 hour

Isophorone Diisocyanate (Trade Secret)

Oral LD50 Rat >20000 mg/kg

Dermal Rat >5000 mg/kg [OECD Test Guideline 402]

**Immediate Effects**

Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness.

May cause allergic skin reaction.

**Delayed Effects**

May cause allergic skin reaction. Suspected of causing cancer.

**Irritation/Corrosivity Data**

Causes skin irritation. Causes serious eye irritation.

**Respiratory Sensitization**

No information available for the product.

**Dermal Sensitization**

May cause allergic skin reaction.

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## TPO Primer

**Comonent Carcinogenicity**

|                |   |
|----------------|---|
| <b>Toluene</b> | 108-88-3  |
| ACGIH:         | A4 - Not Classifiable as a Human Carcinogen                           |
| IARC:          | Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable)) |

**Germ Cell Mutagenicity**

No information available for the product.

**Tumorigenic Data**

No data available

**Reproductive Toxicity**

No information available for the product.

**Specific Target Organ Toxicity - Single Exposure**

central nervous system

**Specific Target Organ Toxicity - Repeated Exposure**

No target organs identified.

**Aspiration hazard**

No information available for the product.

**Medical Conditions Aggravated by Exposure**

No data available.

**Section 12. Ecological Information**

No known applicable information.

|  |  |
|--|--|
| <b>Solvent naphtha, petroleum, light aliphatic</b> | 64742-89-8   |
| Algae  | EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID   |
| <b>Isophorone Diisocyanate</b>                     | Trade Secret   |
| Fish   | LC50 96 h Oncorhynchus mykiss 9.22 mg/L  |
| Invertebrate                                       | EC50 48 h Daphnia magna 6.14 mg/L IUCLID   |
| <b>Toluene</b>                                     | 108-88-3   |
| Fish   | LC50 96 h Pimephales promelas 15.22 - 19.05 mg/L [flow-through] (1day old);<br>LC50 96 h Pimephales promelas 12.6 mg/L [static];<br>LC50 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L [flow-through];<br>LC50 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L [static];<br>LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static];<br>LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static];<br>LC50 96 h Oryzias latipes 54 mg/L [static];<br>LC50 96 h Poecilia reticulata 28.2 mg/L [semi-static];<br>LC50 96 h Poecilia reticulata 50.87 - 70.34 mg/L [static] |
| Algae  | EC50 96 h Pseudokirchneriella subcapitata >433 mg/L IUCLID;<br>EC50 72 h Pseudokirchneriella subcapitata 12.5 mg/L [static] EPA  |
| Invertebrate                                       | EC50 48 h Daphnia magna 5.46 - 9.83 mg/L [static] EPA;<br>EC50 48 h Daphnia magna 11.5 mg/L IUCLID   |
| <b>Heat reactive phenolic resin</b>                | Trade Secret   |
| Fish   | LC50 96 h Pimephales promelas 0.25 mg/L [flow-through]   |
| Algae  | EC50 72 h Desmodesmus subspicatus 1.1 mg/L IUCLID EC50 96 h Pseudokirchneriella subcapitata 1.9 mg/L IUCLID  |
| Invertebrate                                       | EC50 48 h Daphnia magna 0.07 - 0.12 mg/L [static] EPA  |

**Section 13. Disposal Considerations**

Dispose of contents/container in accordance with local/regional/national/international regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

**Section 14. Transport Information****US DOT Information:**

**Shipping Name:**ADHESIVES

**Hazard Class:** 3

**UN/NA #:** UN1133

**Packing Group:** II

**Required Label(s):** 3

**IATA Information:**

**Shipping Name:**ADHESIVES

**Hazard Class:** 3

**UN#:** UN1133

**Packing Group:** II

**Required Label(s):** 3

**TDG Information:**

**Shipping Name:**ADHESIVES

**Hazard Class:** 3

**UN#:** UN1133

**Packing Group:** II

**Section 15. Regulatory Information****U.S. Federal Regulations**

**This material contains one or more of the following chemicals required to be identified under SARA**

Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

|                  |  |
|------------------|--|
| <b>Toluene</b>   | 108-88-3   |
| <b>SARA 313</b>  | 1 % de minimis concentration   |
| <b>CERLA</b>     | 1000 lb final RQ; 454 kg final RQ                                      |
| <b>TSCA 12 b</b> | Section 4, 1 % de minimis concentration (related to Hydrocarbons, C>4) |

**SARA Section 311/312 (40 CFR 370 Subparts B and C)**

**Acute Health: Yes Chronic Health: Yes Fire: Yes Pressure: No Reactivity: No**

**U.S. State Regulations**

The following components appear on one or more of the following state hazardous substances lists:

| Component | CAS      | CA  | MA  | MN  | NJ  | PA  |
|-----------|----------|-----|-----|-----|-----|-----|
| Toluene   | 108-88-3 | Yes | Yes | Yes | Yes | Yes |

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

**WARNING!** This product contains a chemical known to the state of California to cause reproductive/developmental effects

Toluene 108-88-3

Repro/Dev. Tox developmental toxicity , 1/1/1991

**Section 15. Regulatory Information (continued)****Canadian WHMIS Ingredient Disclosure List (IDL)**

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

|                |          |
|----------------|----------|
| <b>Toluene</b> | 108-88-3 |
|                | 1%       |

**Component Analysis - Inventory**

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

|     |     |     |     |     |         |         |              |         |     |     |     |
|-----|-----|-----|-----|-----|---------|---------|--------------|---------|-----|-----|-----|
| US  | CA  | EU  | AU  | PH  | JP-ENCS | JP-ISHL | KR-KECI/KECL | KR-TCCA | CN  | NZ  | MX  |
| Yes | DSL | EIN | Yes | Yes | No      | No      | Yes          | No      | Yes | Yes | Yes |

Isophorone Diisocyanate (Trade Secret)

|     |     |     |     |     |         |         |              |         |     |     |     |
|-----|-----|-----|-----|-----|---------|---------|--------------|---------|-----|-----|-----|
| US  | CA  | EU  | AU  | PH  | JP-ENCS | JP-ISHL | KR-KECI/KECL | KR-TCCA | CN  | NZ  | MX  |
| Yes | DSL | EIN | Yes | Yes | No      | No      | Yes          | No      | Yes | Yes | Yes |

Toluene (108-88-3)

|     |     |     |     |     |         |         |              |         |     |     |     |
|-----|-----|-----|-----|-----|---------|---------|--------------|---------|-----|-----|-----|
| US  | CA  | EU  | AU  | PH  | JP-ENCS | JP-ISHL | KR-KECI/KECL | KR-TCCA | CN  | NZ  | MX  |
| Yes | DSL | EIN | Yes | Yes | Yes     | No      | Yes          | No      | Yes | Yes | Yes |

Chlorinated polypropylene (Trade Secret)

|     |     |    |     |     |         |         |              |         |     |     |    |
|-----|-----|----|-----|-----|---------|---------|--------------|---------|-----|-----|----|
| US  | CA  | EU | AU  | PH  | JP-ENCS | JP-ISHL | KR-KECI/KECL | KR-TCCA | CN  | NZ  | MX |
| Yes | DSL | No | Yes | Yes | Yes     | No      | Yes          | No      | Yes | Yes | No |

Heat reactive phenolic resin (Trade Secret)

|     |     |     |     |     |         |         |              |         |     |     |     |
|-----|-----|-----|-----|-----|---------|---------|--------------|---------|-----|-----|-----|
| US  | CA  | EU  | AU  | PH  | JP-ENCS | JP-ISHL | KR-KECI/KECL | KR-TCCA | CN  | NZ  | MX  |
| Yes | DSL | EIN | Yes | Yes | Yes     | No      | Yes          | No      | Yes | Yes | Yes |

Isophorondiamine-isobutyraldimine (Trade Secret)

|     |     |     |     |     |         |         |              |         |     |     |    |
|-----|-----|-----|-----|-----|---------|---------|--------------|---------|-----|-----|----|
| US  | CA  | EU  | AU  | PH  | JP-ENCS | JP-ISHL | KR-KECI/KECL | KR-TCCA | CN  | NZ  | MX |
| Yes | DSL | EIN | Yes | Yes | Yes     | No      | No           | No      | Yes | Yes | No |

**Section 16. Other Information****HMIS Rating**

Health: 3 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

**NFPA Ratings**

Health: 3 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe



**Disclaimer**

To the best of our knowledge, the information contained herein is accurate. However CHEM LINK INC. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be handled with care. Although we have described herein all of the hazards to which we are currently aware, we cannot guarantee that these are the only hazards which exist. The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.