

Section 1. Product and Company Information

Product Name **TPO Primer**
CHEM LINK INC.
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Schoolcraft, MI 49087, USA
Tel: 269-679-4440
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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**

Label: Pictogram**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

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.

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.

Section 7. Handling and Storage

Handling Obtain special instructions before use. Do not handle until all safety precautions have been
Precautions: 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

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

Toluene	108-88-3
ACGIH:	20 ppm TWA
NIOSH:	100 ppm TWA; 375 mg/m3 TWA 150 ppm STEL; 560 mg/m3 STEL
	500 ppm IDLH
Europe:	50 ppm TWA; 192 mg/m3 TWA 100 ppm STEL; 384 mg/m3 STEL
	Possibility of significant uptake through the skin
OSHA (US):	200 ppm TWA 300 ppm Ceiling
Mexico:	50 ppm TWA LMPE-PPT; 188 mg/m3 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**Eyeface 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

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

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

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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Comonent Carcinogenicity

Toluene	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.

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

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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.

Toluene	108-88-3
SARA 313	1 % de minimis concentration
CERLA	1000 lb final RQ; 454 kg final RQ
TSCA 12 b	Section 4, 1 % de minimus 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

Toluene	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.