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**Section 1 - PRODUCT AND COMPANY IDENTIFICATION**

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**Material Name**

TPO Primer

**Chemical Family**

Primer, mixture

**Restrictions on Use**

For industrial use only.

**Manufacturer Information**

Carlisle SynTec  
1285 Ritner Highway  
Carlisle, PA 17013 USA  
Phone: +1-800-479-6832  
Emergency Phone #: +1-800-424-9300 (Chemtrec)

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**Section 2 - HAZARDS IDENTIFICATION**

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**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

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

**GHS Label Elements**

**Symbol(s)**



**Signal Word**

Danger

**Hazard Statement(s)**

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

## Safety Data Sheet

Material Name: TPO Primer

Product #: 310471

### Precautionary Statement(s)

#### 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  
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

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### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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CAS	Component Name	Percent
64742-89-8	Solvent naphtha, petroleum, light aliphatic	10-30
Trade Secret	Isophorone Diisocyanate	0.1-1

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108-88-3	Toluene	40-70
Trade Secret	Chlorinated polypropylene	0.5-1.5
Trade Secret	Heat reactive phenolic resin	0.1-1
Trade Secret	Isophorondiamine-isobutyraldimine	0.1-1

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### Section 4 - FIRST AID MEASURES

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#### 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.

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### Section 5 - FIRE FIGHTING MEASURES

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#### 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

## Safety Data Sheet

**Material Name: TPO Primer**

**Product #: 310471**

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

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### **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

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### **Precautions for Safe Handling**

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 and ignition sources. Do not puncture or burn containers, even when empty. Empty containers may contain product residue.

### **Incompatible Materials**

Strong oxidizing agents, acids, bases

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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## Safety Data Sheet

**Material Name: TPO Primer**

**Product #: 310471**

### Component Exposure Limits

<b>Toluene</b>	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

#### 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.

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	orange to red liquid	<b>Physical State</b>	liquid
<b>Odor</b>	characteristic	<b>Color</b>	orange to red
<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</b>	2.7

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Material Name: TPO Primer

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<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: n-octanol/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

### 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.

## Safety Data Sheet

**Material Name: TPO Primer**

**Product #: 310471**

### 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 LD50 Rabbit 4000 mg/kg

Inhalation LC50 Rat 5 mg/l 4 h

Toluene (108-88-3)

Oral LD50 >7000 mg/kg

Dermal LD50 12 - 14 g/kg

Inhalation LC50 30 - 35 mg/L

Chlorinated polypropylene (Trade Secret)

Oral Rat 5000 mg/kg

Heat reactive phenolic resin (Trade Secret)

Oral LD50 Rat 2160 mg/kg

Dermal Rabbit 1880 mg/kg

Isophorondiamine-isobutyraldimine (Trade Secret)

Oral Rat 4150 mg/kg [OECD Test Guideline 401]

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.

### Component Carcinogenicity

<b>Toluene</b>	108-88-3
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**Material Name: TPO Primer**

**Product #: 310471**

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

**Component Analysis - Aquatic Toxicity**

<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] (1 day 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];



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	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
<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

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### Section 13 - DISPOSAL CONSIDERATIONS

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**Disposal Methods**

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.

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### Section 14 - TRANSPORT INFORMATION

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**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:**

## Safety Data Sheet

**Material Name:** TPO Primer

**Product #:** 310471

**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
CERCLA:	1000 lb final RQ; 454 kg final RQ
TSCA 12b:	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

**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)

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**Material Name: TPO Primer**
**Product #: 310471**

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**

## Safety Data Sheet

**Material Name: TPO Primer**

**Product #: 310471**

Health: 3 Fire: 3 Reactivity: 0

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

### Summary of Changes

Revision Date: June 1, 2018

Revision Note: General Update

### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

### Other Information

#### Disclaimer:

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.