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**Section 1 - PRODUCT AND COMPANY IDENTIFICATION**

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**Material Name:** TPO Cut-Edge Sealant**Synonym:** Industrial Sealant**Chemical Family:** Solvent Based Sealant**Product Use:** Sealant for TPO Single-Ply Roofing Membranes**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)

**Supplier Information:**

Mule-Hide Products Co., Inc  
1195 Prince Hall Dr.  
Beloit, WI 53511  
USA  
Phone: 800-786-1492

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**Section 2 - HAZARDS IDENTIFICATION**

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

Reproductive Toxicity- Category 2

Skin Irritation - Category 2

Aspiration Hazard - Category 1

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 2

Flammable Liquids- Category 2

**GHS Label Elements****Symbol(s)****Signal Word**

Danger

**Hazard Statement(s)**

H225: Highly flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H336: May cause drowsiness or dizziness.

H361: Suspected of damaging fertility or the unborn child.

H373: May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statement(s)****Prevention**

[201]: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
P233: Keep container tightly closed.  
P240: Ground/bond container and receiving equipment.  
P241: Use explosion-proof electrical/ventilating/lighting equipment.  
P242: Use only non-sparking tools.  
P243: Take precautionary measures against static discharge.  
P260: Do not breathe dust/fume/gas/mist/vapors/spray.  
P264: Wash hands, forearms, and other exposed areas thoroughly after handling.  
P271: Use only outdoors or in a well-ventilated area.  
P272: Contaminated work clothing should not be allowed out of the workplace.  
P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P313: IF exposed or concerned: Get medical advice/attention.  
P312: Call a POISON CENTER or doctor/physician if you feel unwell.  
P314: Get medical advice/attention if you feel unwell.  
P331: Do NOT induce vomiting.  
P332+P313: If skin irritation occurs: Get medical advice/attention.  
P337+P313: If eye irritation persists: Get medical advice/attention.  
P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
P362: Take off contaminated clothing and wash before reuse.  
P370+P378: In case of fire: Use appropriate media to extinguish.  
P391: Collect spillage.

**Storage**

P403 + P235 Store in a well-ventilated place. Keep cool  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed  
P405 Store locked up

**Disposal**

P501 Dispose of contents/container in accordance with local/regional/national/international regulations

**EMERGENCY OVERVIEW**

**IMMEDIATE CONCERNS: DANGER!** Extremely flammable liquid and vapor. Vapor may cause flash fire and explosion. Harmful or fatal if swallowed. Harmful if absorbed through the skin. Pulmonary aspiration hazard. After ingestion, may enter lungs and produce damage. High vapor concentrations may cause drowsiness. Can cause eye, skin and respiratory tract irritation.

**POTENTIAL HEALTH EFFECTS**

**EYES:** Can cause severe eye irritation and corneal damage.  
**SKIN:** Causes defatting and skin irritation. Can cause dermatitis.

**SKIN ABSORPTION:** May be absorbed through the skin in harmful amounts.

**INGESTION:** Can cause gastrointestinal irritation, nausea and vomiting. Aspiration of material into the lungs may cause chemical pneumonitis, which can be fatal. Harmful or fatal if swallowed.

**INHALATION:** May cause nose or throat irritation. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness).

**ROUTES OF ENTRY:** Eye Contact, Ingestion, Inhalation, Skin Absorption, and Skin Contact

**TARGET ORGAN STATEMENT:** Central Nervous System (CNS)

**IRRITANCY:** Eyes, nose, throat, respiratory tract, and skin irritation.

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### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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CAS	Component Name	Percent
108-88-3	Toluene	45 - 70
1330-20-7	Xylene(o-, m-, p-Isomers)	15-40

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### Section 4 - FIRST AID MEASURES

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**EYES:** Immediately flush eyes with plenty of tempered water (at least 15-20 minutes) lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash or dispose of clothing before reuse.

**INGESTION:** Do not induce vomiting, keep person warm, quiet and get medical attention immediately. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Aspiration of this material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**EYES:** Liquid and vapor can severely irritate the eyes depending on type of exposure (splash, vapor) and exposure time.

**SKIN:** Mild to moderate skin irritant.

**SKIN ABSORPTION:** May be absorbed through the skin and can contribute to overall exposure. Effects are similar to CNS depression.

**INGESTION:** May result in central nervous system (CNS) depression with symptoms such as headaches, nausea, vomiting, diarrhea, dizziness, incoordination and unconsciousness. Aspiration of material into lungs may cause chemical pneumonitis which can be fatal.

**INHALATION:** High vapor concentrations may cause CNS depression with symptoms including light headedness, giddiness, nausea, drowsiness, headache, nose, throat and respiratory tract irritation, reduced appetite, confusion, and unconsciousness.

**ACUTE TOXICITY:** High vapor concentrations may cause central nervous system (CNS) depression with symptoms including light headedness, giddiness, nausea, drowsiness, headache, nose, throat and respiratory tract irritation, reduced appetite, confusion and unconsciousness.

**CHRONIC EFFECTS:** Damage to the nervous system of the extremities, peripheral neuropathy, with symptoms including numbness, tingling and weakness in the toes and fingers, sensory impairment to touch, pain, vibration and temperature, muscular weakness, blurred vision, coldness of extremities, loss of body weight and reflexes, and even paralysis. Frequent or prolonged contact may irritate the skin and cause a skin rash(dermatitis).

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## Section 5 - FIRE FIGHTING MEASURES

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**FLAMMABLE CLASS: Class IB**

**GENERAL HAZARD: Flammable liquid and vapor.**

### Extinguishing Media

Dry chemical, foam, carbon dioxide, water spray or fog.

### Explosion Hazards

Avoid fire, sparks, static electricity and hot surfaces. Liquid readily evaporates at room/ambient temperature. Vapors are invisible, flammable, heavier than air, and may accumulate in low areas and spread long distances. Distant ignition and flashback are possible.

### Hazardous Combustion Products

Carbon Monoxide, Carbon Dioxide, Aldehydes

### Fire Fighting Measures

As in any fire, wear self-contained breathing apparatus with pressure-demand, full face piece SCBA (MSHA/NIOSH approved or equivalent) and full protective gear.

**Sensitive to Static Discharge:** Likely to catch fire from near-by spark. Static charge may accumulate by flow or agitation. Grounding and bonding of containers is required.

**Hazardous Decomposition Products:** Carbon Monoxide and Carbon Dioxide may form when heated to decomposition.

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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**SMALL SPILL:** Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on absorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces, including ignitable vapors, have been removed, thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal. Only those persons who are adequately trained, authorized, and wearing the required personal protective equipment (PPE) should participate in spill response and clean-up.

**LARGE SPILL:** Keep spectators away. Only those persons who are adequately trained, authorized and wearing the required personal protective equipment (PPE) should participate in spill response and clean-up. Ventilate the area by natural means or by explosion proof mechanical means (i.e. fans). Know and prepare for spill response before using or handling this product. Eliminate all ignition sources (flames, hot surfaces, portable heaters and sources of electrical, static, or frictional sparks). Dike and contain spill with inert material (e.g. sand, earth). Transfer liquids to covered and labeled metal containers for recovery or disposal, or remove with inert absorbent. Use only non-sparking tools and appropriate PPE. Place absorbent diking materials in covered metal containers for disposal. Prevent contamination of sewers, streams, and groundwater with spilled material or used absorbent.

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### Section 7 - HANDLING AND STORAGE

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**GENERAL PROCEDURES:** For professional or industrial use only. Follow label instructions. Keep out of the reach of children. Not for consumption. No smoking. Do not breathe vapors. Avoid contact with body. Turn off all pilot lights, flames, stoves, heaters, electric motors, welding equipment and other sources of ignition. Empty containers must not be washed and re-used for any purpose. Contact lens wearers must wear protective eye wear around chemical vapors and liquid. Wash hands thoroughly after handling. Flammable vapors may cause flash fire or ignite explosively. To prevent build-up of vapors, use adequate natural and/or mechanical ventilation (e.g. open all windows and doors to achieve cross ventilation). Containers may be hazardous when empty. Never use welding or cutting torch on or near container. Do not cut, drill, grind, or expose containers to heat, sparks, static electricity or other source of ignition. Explosion may occur causing injury or death.

**HANDLING:** Use adequate ventilation and appropriate respiratory protection to avoid breathing vapors when cover is removed. Ground and bond all equipment when handling flammable solvent-borne material.

#### Storage

Keep container closed when not in use. Store in a dry, well ventilated area, out of the sun and away from ignition sources. Do not remove or deface label. Prevent water or moist air from entering container.

**STORAGE TEMPERATURE:** 15.5°C (60°F) Minimum to 35°C (95°F) Maximum

#### Incompatible Materials

Strong oxidizing agents, acids, bases

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### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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#### Component Exposure Limits

<b>Toluene</b>	108-88-3	
OSHA (US):	200 ppm TWA	300 ppm STEL Ceiling
ACGIH:	20 ppm TWA	

<b>Xylene(o-, m-, p-Isomers)</b>	1330-20-7	
<b>OSHA (US):</b>	100ppm TWA; 435 mg/m <sup>3</sup> TWA	
<b>ACGIH</b>	100 ppm TWA; 434 mg/m <sup>3</sup> TWA	150 ppm; 651 mg/m <sup>3</sup> STEL

### Engineering Controls

Provide sufficient explosion proof mechanical (general and/or local exhaust) ventilation to maintain exposure below the occupational exposure limit and exposure concentration.

### Individual Protection Measures, such as Personal Protective Equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles) or a full face respirator.

#### Skin Protection

Wear chemical protective clothing & boots to prevent repeated or prolonged skin contact. Wear impervious gloves, if needed, to prevent repeated or prolonged skin contact.

#### Respiratory Protection

NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

#### Glove Recommendations

Wear appropriate chemical resistant gloves such as nitrile rubber.

**WORK HYGIENIC PRACTICES:** Use good hygiene practices when handling this material. Wash hands thoroughly after use.

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### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	viscous liquid	<b>Physical State</b>	liquid
<b>Odor</b>	Solvent-like	<b>Color</b>	clear
<b>Boiling Point Range</b>	110.6°C(231°F) to 137°C(278.6°F)	<b>Flammability Limit</b>	1.0 to 7.1

<b>Autoignition</b>	526 °C (980 °F)	<b>Flash Point</b>	8.9°C (48 °F)
Specific Gravity (water=1)	0.872	<b>% Volatile (by weight)</b>	84.1
<b>Vapor Density (air=1)</b>	4	<b>VOC</b>	732.800 g/L EPA method 24
<b>Density</b>	7.27 lbs/gal		

**COMMENTS:** 5.27 lb VHAP/lb Solid 84.1% by weight HAP

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### Section 10 - STABILITY AND REACTIVITY

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**Reactivity**

No reactivity hazard is expected.

**Chemical Stability**

Stable under normal conditions of use.

**Possibility of Hazardous Reactions**

Hazardous polymerization will not occur.

**Conditions to Avoid**

Avoid fire, sparks, static electricity and hot surfaces.

**Incompatible Materials**

Strong oxidizing agents, strong acids and strong bases.

**Hazardous decomposition products**

Carbon monoxide and carbon dioxide may form when heated to decomposition.

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### Section 11 - TOXICOLOGICAL INFORMATION

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**Information on Likely Routes of Exposure****Inhalation**

May cause respiratory irritation.

**Skin Contact**

Causes skin irritation.

**Irritation**

Eyes, nose, throat, respiratory tract irritation.

**Corrosivity**

Not applicable

**Sensitization:**

Not applicable

**Neurotoxicity:**

Not applicable

**Genetic Effects:**

Not applicable

**Mutagenicity:**

**Material Name: TPO Cut-Edge Sealant**

Not applicable

**Reproductive Effects:**

This product contains toluene, a chemical known to the state of California to cause birth defects or other reproductive harm.

**Component Analysis - LD50/LC50**

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

Toluene (108-88-3)

Oral LD50 Rat 2600 mg/kg - 7500 mg/kg

Dermal LD50 Rabbit 12,124 mg/kg

Inhalation LD50 Rat 8000 ppm (4hr dose)

Xylene (1330-20-7)

Oral LD50 Rat 4300 mg/kg

Dermal LD50 Rabbit 2000 mg/kg

Inhalation LD50 Rat 26800 ppm

**Component Carcinogenicity**

<b>Toluene</b>	108-88-3
IARC:	3
<b>Xylene(o-, m-, p-Isomers)</b>	1330-20-7
IARC:	3

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**Section 12 - ECOLOGICAL INFORMATION**

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**Environmental Data**

This product contains components that will normally float on water. These components may be harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment.

**Ecotoxicological Information:**

Contains components that are potentially toxic to freshwater and saltwater ecosystems.

**Bioaccumulation/Accumulation**

Contains components with the potential to bio-accumulate.

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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.

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## Section 14 - TRANSPORT INFORMATION

Chemical Name	Wt. %	CAS
Toluene	45 - 70	108-88-3
Xylenes (o-,m-,p- Isomers)	15 - 40	1330-20-7

**US DOT Information:**
**Shipping Name:** ADHESIVES

**Hazard Class:** 3

**UN/NA #:** UN1133

**Packing Group:** II

**NAERG:** 128

**Marine Pollutant #1:** None

**OTHER SHIPPING INFORMATION:** contains (Toluene, Xylene)

**SPECIAL SHIPPING NOTES:** If individual container size is less than 1.3 gallons, the proper shipping name is:

ORM-D Consumer Commodity

Non-Regulated

## Section 15 - REGULATORY INFORMATION

**U.S. Federal Regulations**

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

**SARA Section 311/312 (40 CFR 370 Subparts B and C)**
**Acute Health:** Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactivity:** No

**EPCRA SECTION 313 SUPPLIER NOTIFICATION**

Chemical Name	Wt. %	CAS
Toluene	45 - 70	108-88-3
Xylenes (o-,m-,p- Isomers)	15 - 40	1330-20-7

**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**

Chemical Name	Wt. %	CERCLA RQ
Toluene	45 - 70	
Xylenes (o-,m-,p- Isomers)	15 - 40	100

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

## Safety Data Sheet

**Material Name: TPO Cut-Edge Sealant**
**SDS 10-3405**

Chemical Name	CAS	TSCA SECTION
Toluene	108-88-3	1,000 lbs.
Xylenes (o-,m-,p- Isomers)	1330-20-7	8a, 8d, 12b,

**CLEAN AIR ACT**

Chemical Name	Wt.%	CAS
Toluene	45 - 70	108-88-3
Xylenes (o-,m-,p- Isomers)	15 - 40	1330-20-7

**CALIFORNIA PROPOSITION 65:** This product contains toluene, a chemical known to the state of California to cause birth defects or other reproductive harm.

Chemical Name	Wt.%	Listed
Toluene	45 – 70	Developmental Toxicity

**STATES WITH SPECIAL REQUIREMENTS**
**Canadian WHMIS Ingredient Disclosure List (IDL)**
**CANADA**
**WHMIS HAZARD SYMBOL AND CLASSIFICATION**


Flammable Liquid

Toxic

**DOMESTIC SUBSTANCE (INVENTORY):** Toluene and Xylene are specified on the Canadian Domestic Substance List (DSL).

Chemical Name	Requirements
Toluene	New Jersey Right to Know List Pennsylvania Right to Know List Massachusetts Toxic Use Reduction Act (TURA) Reportable Chemical
Xylenes (o-,m-,p-Isomers)	New Jersey Right to Know List Pennsylvania Right to Know List Massachusetts Toxic Use Reduction Act (TURA) Reportable Chemical Illinois Right to Know List Minnesota Right to Know List Rhode Island Right to Know List

**Section 16 - OTHER INFORMATION**

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**HMIS Rating**

Health: 2 Fire: 3 Reactivity: 0 Personal Protection B

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

**NFPA Ratings**

Health: 2 Fire: 3 Reactivity: 0

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

**Summary of Changes**

New SDS: April 17, 2015

**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.