

# Safety Data Sheet



## 1. Product and Company Identification

Product Name: **Ultralane® 754A**  
Material Uses: Polyurethane Encapsulating, Sealing & Casting Hardener  
(M)SDS#: 754A-20191031  
Validation Date: October-31-2019  
Supplier/Manufacturer: Specialty Polymers & Services, Inc. (SP&S, Inc.)  
27822 Fremont Court  
Valencia, California (CA) 91355, U.S.A.  
Non-emergency phone number: (661) 294-1790 (7AM – 5PM PST)  
E-mail: msds@spolymers.com

In case of emergency: Chemtrec (800) 424-9300 or (703) 527-3887

## 2. Hazards Identification

### GHS CLASSIFICATION OF SUBSTANCE OR MIXTURE:

Skin corrosion/irritation:	Category 2, H315	Eye damage/irritation:	Category 2B, H320
Skin sensitization:	Category 1, H317	Respiratory sensitization:	Category 1, H334
Specific Target Organ Toxicity - Repeated Exposure:	Category 1, H372	Specific Target Organ Toxicity - Single Exposure (Respiratory Tract):	Category 3, H335
Carcinogenicity:	Category 2, H351	Acute Toxicity (Inhalation):	Category 4, H332

### GHS LABEL ELEMENTS:

#### HAZARD SYMBOLS:



#### SIGNAL WORDS:

Danger!

#### HAZARD STATEMENTS:

H315 Causes skin irritation.

H320 Causes eye irritation.

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H372 Causes damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H332 Harmful if inhaled.

### PRECAUTIONARY STATEMENTS:

**PREVENTION:** P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
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, clothing, and eye/face protection.  
P285 In case of inadequate ventilation wear respiratory protection.

- RESPONSE:** P301+P330+P331+P312 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call POISON CENTER and/or doctor if you feel unwell.  
 P303+P361+P364+P353+P352 IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash before reuse. Rinse skin with water/shower. Wash with plenty of soap and water.  
 P333+P313 If skin irritation or rash occurs: Get medical attention.  
 P304+P340+P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER and/or physician if you feel unwell.  
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER and/or physician.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313 If eye irritation persists: Get medical advice/attention.  
 P308+P313 IF exposed or concerned: Get medical attention.  
 P314 Get medical advice/attention if you feel unwell.  
 P391 Collect spillage.
- STORAGE:** P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.
- DISPOSAL:** P501 Dispose of contents and containers in accordance with local, regional and international regulations.

Precautionary statements are listed according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS) – Annex III

See toxicological information (section 11)

General Information: Read entire MSDS for a more thorough evaluation of the hazards

### 3. Composition / Information on Ingredients

Name	CAS Number	%
4,4'-Methylenediphenyl diisocyanate	101-68-8	50 - 90
Methylenediphenyl diisocyanate (MDI)	26447-40-5	55 - 95
Methylenediphenyl diisocyanate, homopolymer	39310-05-9	10 - 35

Note: CAS 101-68-8 is an MDI isomer that is part of CAS 26447-40-5

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

### 4. First Aid Measures

Eye Contact:	Check for and remove any contact lenses. Immediately flush eyes for at least 15 minutes with running water. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. Get immediate medical attention.
Skin Contact:	In case of contact, wash affected areas with plenty of water, and soap, if available, for several minutes. Remove and clean contaminated clothing and shoes before re-use. Get medical attention if irritation occurs. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser (such as D-Tam™, PEG-400) or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts, watchbands.
Inhalation:	Move exposed person to fresh air. If not breathing, give artificial respiration or oxygen; if by mouth to mouth use rescuer protection (pocket mask, etc.). If breathing is difficult, transport to medical care and, if available, give supplemental oxygen. Loosen tight clothing such as a collar, tie, belt, or waistband. Get immediate medical attention.
Ingestion:	Wash out mouth with water. If swallowed dilute by giving two (2) glasses water to drink. Do not give milk or alcoholic beverages. Do not induce vomiting until direct to do so by medical personnel. Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position. Get immediate medical attention.
Note to physician:	Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision. Skin: This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the compound. Inhalation: Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this

material should be removed from further exposure to any diisocyanate. Symptoms of poisoning may appear several hours later. Call poison control center if large quantities were ingested.

## 5. Fire-Fighting Measures

Flash point:	>175°C (>347°F) closed cup
Hazardous Thermal Decomposition Products:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, oxides of nitrogen, unburned hydrocarbons (smoke), Isocyanate, Isocyanic Acid, hydrogen cyanide (hydrocyanic acid), metal oxides, other oxides, and other undetermined compounds. During fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Container may rupture from gas generation in a fire situation.
Extinguishing Media:	Carbon dioxide, foam, dry chemical, water spray as suitable for the surrounding fire. Do not use high volume water jet, as it may spread the fire.
Special Exposure Hazards:	Promptly isolate the scene by removing all persons from the vicinity of the fire. No actions shall be taken involving any personal risk or without suitable training.
Special Protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental Release Measures

Personal Precautions:	No actions shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering area. Keep personnel out of low areas. Do not touch or walk through spilled material. Spilled material may cause a slipping hazard. Avoid breathing vapor or mist and provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
Environmental Precautions:	Avoid dispersal of spilled material and runoff that leads to contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution.
Methods of Clean Up:	Stop leak if without risk. Move containers from spill area. Approach spill from up wind if possible. Prevent spill from entering sewers, rivers and other water courses, basements, or confined areas. Wash into effluent treatment plant or proceed as follows: Contain and collect spillage with non-combustible, absorbent material (e.g. sand, earth, vermiculite, or diatomaceous earth). Do not use absorbent materials such as cement powder (Note: may generate heat). Collect in suitable, properly labeled open containers. Do not place in sealed containers, as carbon dioxide gas and heat can be generated during the neutralization process. Suitable containers include metal drums, plastic drums, or polylined fiber pacs. Do not fill the container more than 2/3 full to allow for expansion.

Wash the spill site with large quantities of water. Attempt to neutralize by adding suitable decontaminant solution\*. If ammonia is used, use good ventilation to prevent vapor exposure. Wait at least 15 minutes after first application of the neutralizing solution. Cover the area with absorbent material and shovel this into a suitable and properly labeled container. With the lid still loosely in place, move container to an isolated, well-ventilated area to allow release of carbon dioxide. After 72 hours, seal the container, and properly dispose of the waste material and any contaminated equipment (i.e., broom or brush) in accordance with existing federal, state and local regulations. Dispose of only using a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information.

\*Formulation 1 (percentages by weight or volume): sodium carbonite 5 – 10%; liquid detergent 0.2 – 2%; and water to make up to 100%.

Formulation 2 (percentages by weight or volume): concentrated ammonia solution 3 – 8%; liquid detergent 0.2 – 2%; and water to make up 100%.

Formulation 1 reacts slower with diisocyanates but is more environmentally friendly than Formulation 2. Formulation 2 contains ammonia which presents health hazards. (See supplier safety information).

## 7. Handling and Storage

**Handling:** Wear appropriate personal protective equipment (see Section 8) when handling. Eating, drinking, and smoking should be prohibited in areas where chemicals are handled, stored, or processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in processes where this material is used. Keep in the original container or a suitable alternate made from a compatible material. Keep all containers tightly closed when not in use. Empty containers retain product residue and should be disposed of properly. Do not reuse empty containers for other purposes or to hold other materials.

**Storage:** Store in accordance with local regulations. Store between 20°C – 40°C to maintain shelf-life. Protect from atmospheric moisture. Do not store product contaminated with water to prevent potential hazardous reaction. If frozen material may crystallize and require heating to re-liquefy. Keep away from incompatible materials (see Section 10) and food and drink. Keep all containers tightly closed when not in use and tightly re-seal after use. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure Controls / Personal Protection

Ingredient	Exposure Limits
4,4'-Methylenediphenyl diisocyanate	ACGIH – TWA: 0.005 ppm OSHA PEL – Ceiling: 0.02 ppm / 0.2 mg/m <sup>3</sup> OSHA Z-1 – Ceiling: 0.02 ppm / 0.2 mg/m <sup>3</sup>
Triethyl phosphate	US WEEL – TWA: 7.45 mg/m <sup>3</sup>

**Recommended Monitoring Procedures:** If this product contains ingredients with exposure limits, personal, workplace, atmospheric, or biological monitoring may be required to determine the effectiveness of the ventilation system or other control measures and/or to determine whether it is necessary to use respiratory protective equipment. Consider European Standard EN 689 or similar industry or governmental guidelines for appropriate methods for the assessment of exposure by inhalation to chemical agents and/or hazardous substances.

**Engineering measures:** No special ventilation requirements are necessary for this product. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure below the recommended or statutory limits.

**Hygiene measures:** Wash hands, forearms, and face thoroughly after handling any chemical products, before eating, smoking, and using the lavatory and at the end of the work period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protection

**Respiratory:** A respiratory protection program in compliance with 29CFR1910.134, or other applicable regulatory standard must be followed whenever exposure limits may be exceeded. If engineering controls are not feasible, or if inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Hands:** Wear neoprene, nitrile rubber or other suitable impervious gloves; consider European Standard EN374 or similar industry or governmental guidelines. Consider the parameters specified by the glove manufacture and check gloves during use to ensure they are retaining their protective properties. Gloves selected must have a breakthrough rating appropriate for the work shift. If a risk assessment indicates that it is necessary, gloves should always be worn when handling chemical products.

**Eyes:** When a risk assessment indicates, safety eyewear complying with an approved standard, such as OSHA Standard 29CFR1910.133 or European Standard EN166, should be used to avoid exposure to liquid splashes, mists, or dusts. If contact is possible, at a minimum use chemical splash goggles. If significant splash hazard may occur, consider using a full-face shield.

**Skin:** Personal Protective equipment for the body should be selected based on the task being performed and the risks involved. Typical protective equipment includes non-absorbent lab coats, disposable protective sleeves, coats, or whole-body suits. Consider CFR1910.132 and CFR1910.136 for OSHA approved standards on protective clothing and footwear. Consider seeing a safety specialist to determine the appropriate level of protection for your task.

**Environmental Exposure Controls:** Emissions from ventilation or work processes should be checked to ensure they comply with the requirements of environmental regulations. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and Chemical Properties

Appearance:	Clear light yellow to amber liquid	Odor	Slight
Boiling Point:	>250°C (>482°F)	Freezing Point:	Not determined
Flash Point:	>175°C (>347°F) closed cup	pH:	Not determined
Auto-ignition Temperature:	>400°C (>752°C)	Flammable Limits:	Not determined
Vapor Pressure:	< 1 mm Hg at 20°C (68 °F)	Water Solubility:	Reacts with water
Specific Gravity:	~1.20	Vapor Density:	>1 (Air = 1)
Evaporation Rate:	<1 (butyl acetate =1)	VOC:	<12 g/ L (estimated)
Viscosity:	50 cP		

## 10. Stability and Reactivity

Chemical Stability:	This product is stable, under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous Polymerization:	Under normal conditions of storage and use, hazardous polymerization will not occur. MDI is not soluble in water and sinks to the bottom but reacts slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat.
Conditions to Avoid:	High temperatures and exposure to water, strong oxidizing agents, acids, bases, amines, polyols, alcohols, ammonia, metal compounds, moist air. Diisocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanate. The reaction of polyols and isocyanates generate heat.
Hazardous Decomposition	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal Decomposition products may include the following materials: carbon dioxide, carbon monoxide, oxides of nitrogen, unburned hydrocarbons (smoke), Isocyanate, Isocyanic Acid, hydrogen cyanide (hydrocyanic acid), metal oxides, other oxides, and other undetermined compounds. During fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Container may rupture from gas generation in a fire situation.

## 11. Toxicological Information

### Acute Toxicity

Product/Ingredient Name	Test	Endpoint	Species	Result
4,4'-Methylenediphenyl diisocyanate	OECD 403 Acute Inhalation Toxicity	LC50 Inhalation Dusts & mists	Rat - Male, Female	0.368 mg/l
	OECD 402 Acute Dermal Toxicity	LD50 Dermal	Rabbit - Male, Female	>9,400 mg/kg
	OECD 401 Acute Oral Toxicity	LD50 Oral	Rat - Male	>2,000 mg/kg

### Irritation / Corrosion

Product/Ingredient Name	Test	Species	Result
4,4'-Methylenediphenyl diisocyanate	OECD 404 Acute Dermal Irritation/Corrosion	Rabbit	Irritant
	OECD 405 Acute Eye Irritation/Corrosion	Rabbit	Non-irritant

### Sensitizer

Product/Ingredient Name	Test	Species	Result
4,4'-Methylenediphenyl diisocyanate	OECD 429 local lymph node assay (LLNA)	Mouse	Sensitizing
	OECD 406 Skin Sensitization	Guinea pig	Sensitizing
	No official guidelines - Respiratory	Guinea pig	Sensitizing

### Mutagenicity

Product/Ingredient Name	Test	Result
4,4'-Methylenediphenyl diisocyanate	OECD Test Guideline 471: In vitro, Metabolic activation: +/-, Concentration: ca 50 µg/plate	Negative
	OECD Test Guideline 474: In vivo, Application route: Inhalation, Exposure: 3 weeks (118 mg/m <sup>3</sup> dose)	Negative

**Conclusion/ Summary:** the weight of scientific evidence indicates that the components of this product are not genotoxic

### Carcinogenicity

Polymeric MDI has been classified as IARC Group 3 ("Not classifiable as to its carcinogenicity to humans") (1999) indicating there is inadequate evidence available to describe the carcinogenic potential.

No other components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, or OSHA.

### Reproductive Toxicity

Product/Ingredient Name	Test	Species	Maternal Toxicity	Fertility	Developmental Effects
Not data available					

## Teratogenicity

Product/Ingredient Name	Test	Species	Results
4,4'-Methylenediphenyl diisocyanate	OECD 414 Prenatal Developmental Toxicity Study	Rat - Female	Negative - Inhalation

## Potential Acute Health Effects

Inhalation:	Vapors or mist can irritate (burning sensation) the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). May cause an allergy or asthma symptoms.
Ingestion:	May cause irritation of the digestive tract. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea
Skin Contact:	Causes skin irritation with symptoms of reddening, itching, and swelling. Person previously sensitized can experience allergic skin reactions with symptoms of reddening, itching, swelling, and rash. Contact with MDI can cause discoloration.
Eye Contact:	Causes eye irritation with symptoms of reddening, tearing, stinging, and swelling. May temporary corneal injury. Vapor or aerosol may cause irritation with symptoms of burning and tearing.

## Potential Chronic Health Effects

Product/Ingredient Name	Test	Endpoint	Species	Results
4,4'-Methylenediphenyl diisocyanate	90 days, inhalation (18 hrs/day, 5 days/week)	Sub-chronic NOAEL Inhalation	Rat – Male & Female	0.3 - mg/m <sup>3</sup>
	OECD Test Guideline 453 (2 years, 5d exposures)	NOEC (dust/mist)	Rat – Male & Female	0.2 - mg/m <sup>3</sup>
	OECD Test Guideline 413 (2,160 hours, 5d exposures)	NOEC (dust/mist)	Rat – Male & Female	< 4 - mg/m <sup>3</sup>

General:	Once sensitized, an allergic reaction may occur when subsequently exposed to very low levels
Target Organs:	Can cause damage to Respiratory tract through prolonged or repeated exposure if inhaled. Inhalation may cause allergy or asthma symptoms or breathing difficulties
Carcinogenicity:	Suspected of causing cancer.
Mutagenicity:	No known significant effects or critical hazards
Teratogenicity:	No known significant effects or critical hazards
Developmental Effects:	No known significant effects or critical hazards
Fertility Effects:	No known significant effects or critical hazards

## 12. Ecological Information

**Environmental Effects:** This product is not classified as environmentally hazardous; however, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

### Aquatic Ecotoxicity

Product/Ingredient Name	Test	Endpoint	Exposure	Species	Result
4,4'-Methylenediphenyl diisocyanate	OECD 203, Acute Toxicity Test	Acute LC50	96 hours Static	Fish	>1000 mg/l
	OECD 211 Reproduction Test	Chronic NOECr	21 days Semi-static	Daphnia	>10 mg/l
	OECD 202 Acute Immobilization Test	Acute EC50	24 hours Static	Daphnia	>1000 mg/l
	OECD 201 Growth Inhibition Test	Chronic NOECr	72 hours Static	Algae	1640 mg/l

### Persistence and Degradability

Product/Ingredient Name	Test	Period	Result
4,4'-Methylenediphenyl diisocyanate	OECD 302C Inherent Biodegradability: Modified MITI Test (II)	28 days	0%

Product/Ingredient Name	Aquatic half-life	Photolysis	Biodegradability
4,4'-Methylenediphenyl diisocyanate	Fresh water 0.83 days	-	Not biodegradable

### Bioaccumulative potential

Product/Ingredient Name	Log P <sub>ow</sub>	BCF	Potential
4,4'-Methylenediphenyl diisocyanate	< 3	92	low

Other adverse effects: No known significant effects or critical hazards

Other information: BOD5: Not determined      COD: Not Determined      TOC: Not determined

## 13. Disposal Consideration

**Waste Disposal Method:** Disposal of this products, solutions, and by-products should always comply with the requirements of environmental and waste disposal legislation and any regional or local authority requirements. Dispose of surplus, non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed on untreated to the sewer system unless this is complaint with all applicable laws and regulations. Incineration by an approved and licensed contractor is the most common

disposal method. Packaging materials that and absorbents containing the product can typically be landfilled or incinerated. Contact local authorities to determine the proper means of disposal in your area.

**14. Transport Information**

**DOT (US) Classification:** Not regulated for transportation purposes under 49CFR in containers less than 5000 lbs. when transported by motor vehicle, rail car, or aircraft.

**TDG (Canadian) Classification:** Not regulated for transportation purposes when transported by road or rail.

**IATA (Air):** Not regulated for transportation purposes,

**IMDG (Ocean):** Not regulated for transportation purposes,

**15. REGULATORY INFORMATION**

**US Federal Regulations:**

**Occupational Safety and Health Act (OSHA):** This product is a hazardous chemical under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**SARA Title III: Section 304 - CERCLA:** This product contains chemicals regulated under Section 304 as extremely hazardous substance(s) for emergency release notification ("CERCLA" List):

Ingredient	CAS #	Component RQ (lbs.)	Calculated Product RQ (Lbs.)
4,4'-Methylenediphenyl diisocyanate	101-68-8	5000	>8,000

**SARA Title III: Section 311/312 - Hazard Communication Standard (HCS):** Per the June 13, 2016 Federal Register notice, EPA harmonized the EPCRA 311/312 hazard categories with the 2012 OSHA hazard communication standard for classifying and labeling of chemicals (i.e. GHS). Please refer to section 2 of the SDS to identify the appropriate hazard categories for reporting purposes.

**SARA Title III: Section 313 Toxic Chemical List (TCL):** This product does contain one or more toxic chemicals for routine annual Toxic Chemical Release Reporting under section 313 (40 CFR 372).

4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8), 50 - 90%

**TSCA Section 8(b) - Inventory Status:** All chemical(s) comprising this product are listed on the TSCA inventory.

**TSCA Section 12(b) - Export Notification:** This product does not contain chemicals which are subject to Section 12(b) export notification:

**State Regulations:**

**California Proposition 65:** **⚠ WARNING:** This product can expose you to chemicals including Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**International Regulations:**

**WHMIS:** Class D-2A: Material causing other toxic effects (Very toxic).  
Class D-2B: Material causing other toxic effects (Toxic).

**International Lists:**

Australia Inventory (AICS):	all components are listed or exempt	Korea Inventory (ECL):	all components are listed or exempt
Canadian Inventory (CEPA-DSL):	all components are listed or exempt	Philippines Inventory (PICCS):	all components are listed or exempt
China Inventory (IECSC):	all components are listed or exempt		

**16. OTHER INFORMATION**

Hazardous Material Information System (HMIS) - USA		National Fire Protection Association (USA):	
Health	2*		
Flammability	1		
Physical Hazards	1		
Personal Protection	C*		

\*suggested minimum personal protection equipment. End user must determine appropriateness of these suggestions for their applications and usage conditions.

**Reason Issued:** update  
**Prepared By:** Preston White  
**Approved By:** Chris Meyer Title: Vice President

**NOTICE TO READER:** While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF PRODUCTS FOR THE USER'S PARTICULAR PURPOSE(S).

THIS PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.