

### **SECTION 1: Identification**

### 1.1 GHS Product identifier

Product name	Terpro PUR Patch V- Part A

### 1.4 Supplier's details

Name	
Address	

Siplast 14911 Quorum Drive Suite 600 Dallas, TX 75254

Telephone

800-922-8800

### 1.5 Emergency phone number

800-424-9300 (CHEMTREC)

# **SECTION 2: Hazard identification**

### General hazard statement

According to Regulation 2012 OSHA Hazard Communications Standard: 29 CFR Part 1910.1200

### 2.1 Classification of the substance or mixture

### GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Acute toxicity, inhalation, Cat. 4
- Eye damage/irritation, Cat. 2
- Sensitization, respiratory, Cat. 1
- Skin corrosion/irritation, Cat. 2
- Sensitization, skin, Cat. 1
- Specific target organ toxicity (repeated exposure), Cat. 1
- Specific target organ toxicity (single exposure), Cat. 3

### 2.2 GHS label elements, including precautionary statements

### Pictograms



2.3

Signal word	Danger
Hazard statement(s)	
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H320	Causes eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause allergy of astima symptoms of breathing dimedities in innaled May cause respiratory irritation
H372	Causes damage to organs [Respiratory Tract] through prolonged or repeated exposure if inhaled.
Precautionary statement(s)	
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash face, hands, and any exposed skin 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 must not be allowed out of the workplace.
P280	Wear protective gloves.
P285	In case of inadequate ventilation wear respiratory protection.
P302+P350	IF ON SKIN: Gently wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove
	contact lenses if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at
1 304+1 341	rest in a position comfortable for breathing.
P342	If experiencing respiratory symptoms: Remove to fresh air.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional, and national
	regulations.
Other hazards which do not result EMERGENCY OVERVIEW	
Physical Appearance:	Clear straw color liquid.
CAUTION:	Contains DIPHENYLMETHANE DIISOCYANATE (CAS no. 101-68-8).
	Inhalation of MDI mists or vapors may cause respiratory irritation,
	breathlessness, chest discomfort and reduced pulmonary function.
	Overexposure well above the PEL may result in bronchitis, bronchial spasms
	and pulmonary edema. Long-term exposure to isocyanates has been
	reported to cause lung damage, including reduced lung function which may
	be permanent. Acute or chronic overexposure to isocyanates may cause
	sensitization in some individuals, resulting in allergic respiratory reactions
	including wheezing, shortness of breath and difficulty breathing.
POTENTIAL HEALTH EFFECTS	
Eyes:	May cause significant irritation to the eyes.
Skin:	Allergic reaction and significant irritation to the skin is possible.
Ingestion:	May cause significant irritation to the digestive tract.
Inhalation:	Irritating to the nose, throat and respiratory tract.

Sensitization:

Possible sensitizer by inhalation and skin contact.

# **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

Chemical Name	Wt.%	CAS
Polymeric Isocyanates	70-100	9016-87-9
Methylene Bisphenyl Isocyanate	5 - 15	101-68-8
Diphenylmethane-2,4'-di-isocyanate	3-7	5873-54-1
Diphenylmethane-2,2'-di-isocyanate	<1	2536-05-2

### Trade secret statement (OSHA 1910.1200(i))

Criteria for listing components in this SDS are as follows: Carcinogens are listed at 0.1% or greater; hazardous components according to regulation 2012 OSHA Hazard Communication Standard: 29 CFR 1910.1200 are listed at 1.0% or greater; non-hazardous components are not listed. This is not intended to be the complete compositional disclosure. If a "Trade Secret" "(TS)" is claimed in accordance to paragraph (i) of 1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

# **SECTION 4: First-aid measures**

#### 4.1 Description of necessary first-aid measures

If inhaled	Remove victim to fresh air and provide oxygen if breathing is difficult. Seek medical attention if cough or other symptoms develop.
In case of skin contact	Remove contaminated clothing and immediately wash affected skin area with plenty of soap and water. Seek medical attention. Either discard or wash contaminated clothing and shoes before reuse.
In case of eye contact	Immediately flush with plenty of water for two minutes. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Have eyes examined and tested by medical personnel.
If swallowed	Make sure victim is conscious and alert. If so, give 2-3 glasses of water to dilute. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Do not leave victim unattended as spontaneous vomiting my occur. Lay victim on side with head lower than waist to prevent aspiration of swallowed product. If victim is conscious and vomiting occurs, give water to further dilute the chemical.

#### 4.2 Most important symptoms/effects, acute and delayed

Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed. Gastrointestinal symptoms include nausea, vomiting and abdominal pain.

Results from a lifetime study in rats indicate that MDI aerosol was carcinogenic at 6 mg/m3, the highest dose tested. This is well above the recommended TLV of 5 ppb (0.05 mg/m3). Only irritation was noted at the lower concentration of 0.2 and 1 mg/m3. No birth defects of teratogenic effects were reported in a teratology study with rats exposed to 1, 4, and 12 mg/m3 polymeric MDI or 6 hr/day on days 6-15 of gestation. Embryotoxicity and fetotoxicity was reported at the top dose in the presence of maternal toxicity.

As a result of the previous repeated overexposures or single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to later exposure to isocyanate at levels well below the PEL/TLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. This increased lung sensitivity can persist for weeks and in severe cases for several years.

# **SECTION 5: Fire-fighting measures**

### 5.1 Suitable extinguishing media

Dry Chemical, Foam, or Carbon Dioxide. Water is not recommended do to reaction.

5.2 Specific hazards arising from the chemical Oxides of Nitrogen, Oxides of Carbon.

### 5.3 Special protective actions for fire-fighters

Do not release runoff from fire control methods to sewers or waterways. Firefighting personnel are required to use respiratory and eye protection. Full fire protective equipment (Bunker Gear) and self-contained breathing apparatus (SCBA) is recommended to be used for all indoor fires and any significant outdoor fires. SCBA may not be required for small outdoor fires that may easily be extinguished with a portable fire extinguisher.

# **SECTION 6: Accidental release measures**

### 6.1 Personal precautions, protective equipment and emergency procedures

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 diatomaceous earth, sawdust, vermiculite, or any appropriate readily available material and sweep or shovel absorbed material into closed containers for disposal. After all visible traces, including ignitable vapors, have been removed thoroughly wash the contaminated 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. Wear the appropriate personal protective equipment designated in Section 8, remove the leaking container to a containment area and place into an appropriate container to prevent any further spill.

Large Spill: Construct temporary dikes of dirt or sand to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on absorbent, such as diatomaceous earth, sawdust, vermiculite, or any appropriate readily available material and sweep or shovel adsorbed material into closed containers for disposal. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal. Wear the appropriate personal protective equipment designated in Section 8, close or cap leaking valves and/or block or plug hole in leaking container. Remove the leaking containers to a containment area and place into an appropriate container to prevent any further spill. Contain material as described above and call the local fire, police, or appropriate emergency response provider for immediate emergency assistance.

### 6.2 Environmental precautions

Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of material into sources of water.

### 6.3 Methods and materials for containment and cleaning up

Absorb spill with an emergency spill kit, diatomaceous earth, saw dust or equivalent inert material. Shovel up and dispose of at an appropriate waste disposal facility following applicable laws and regulations.

# **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Use with sufficient ventilation to keep employee exposure below recommended limits. Provide adequate ventilation for storage, handling and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and

prolonged skin exposure. Avoid breathing in vapors, mists, and aerosols. Do not allow product to contact open flame or electrical heating elements because dangerous decomposition products may form.

### 7.2 Conditions for safe storage, including any incompatibilities

Store product in original containers. Store container in a secure cool, dry, well-ventilated area at 55-85 deg. F. Opened containers should be blanketed with nitrogen gas at atmospheric pressure to avoid reaction with moisture. Contamination with moisture or "basic" compounds can cause dangerous pressure buildup in closed containers. Store and warehouse product in an appropriate area or facility. Segregate like materials together to avoid negative chemical reactions. Protect materials from excessive exposure to heat. Observe proper storage conditions and temperatures. If bulging of containers occurs, transfer to a well-ventilated area and open carefully to relieve pressure then reseal.

# **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

#### EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
	EXPOSURE LIMITS			
Chemical Name	Туре		ppm	mg/m <sup>3</sup>
Methylene Bisphenyl Isocyanate ACGIH TLV	TWA	.02	.2	
	USHA PEL	STEL	.02	
	ACGIH TLV	TWA	.005	
	Supplier OEL	TWA	[1]	[1]
		STEL	[1]	[1]
OSHA TABLE COMMENTS:	·	•		•
1. Not Established				

### 8.2 Appropriate engineering controls

Proper industrial hygiene practices are required for workers and should be achieved though engineering controls including ventilation with a high turnover rate whenever feasible. When such controls are not available or not feasible to achieve full protection, respirators for workers (and others in the area) and other personal protective equipment is mandated. Exhaust air may need to be scrubbed (cleaned) or filtered to reduce environmental contamination and odors.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

### Eye/face protection

Wear safety goggles or safety glasses with side shields when handling and mixing this material.

### Skin protection

Wear impervious compatible chemical resistant protective clothing such as neoprene or butyl rubber gloves, aprons, boots or Tyvek coveralls, as appropriate to prevent contact with skin.

### **Respiratory protection**

For respirator selection and training, seek professional advice. Whenever workplace conditions require a use of a respirator, follow a respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements. Wear an OSHA/NIOSH approved respirator selected on its suitability to provide adequate worker protection for the chemicals used and given working conditions including the level of airborne contamination and presence of sufficient oxygen.

### **Environmental exposure controls**

Always follow "Good personal hygiene practices" when working with this material. Always practice "good personal hygiene" during and after use of this materials, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. DO NOT eat, drink, or smoke in work areas that contain hazardous chemicals.

### **SECTION 9: Physical and chemical properties**

### Basic physical and chemical properties

Physical state Appearance Color Odor Odor threshold Melting point/freezing point Boiling point or initial boiling point and boiling range Flammability Lower and upper explosion limit/flammability limit Flash point Explosive properties Auto-ignition temperature Decomposition temperature Oxidizing properties pН Kinematic viscosity Solubility Partition coefficient n-octanol/water (log value) Vapor pressure Evaporation rate Density and/or relative density Relative vapor density

Liquid No data available. Clear to pale vellow Faint aromatic odor. No data available. < 0°C (32°F) 208°C (406.4°F) No data available. No data available. > 93.34°C (200.01°F) Pensky-Martens CC No data available. Insoluble in water, reacts with evolution of CO2 No data available. < 0.001 mmHg at 25°C No data available. 1.12 g/cm3 at 25°C (77°F) No data available.

### Particle characteristics

No data available.

#### Supplemental information regarding physical hazard classes No data available.

### Further safety characteristics (supplemental)

(VOC): to 0 g/l Calculated Notes: VOC listed on the SDS is for this component only. Mixed VOC for the combined product may have a different value.

(VOC): to 5 g/l Estimated After Mixed

# **SECTION 10: Stability and reactivity**

### 10.1 Reactivity

Yes

### 10.2 Chemical stability

This material (product) is stable under normal ambient conditions of temperature and pressure. Follow recommendations for proper storage and use.

### 10.3 Possibility of hazardous reactions

May occur is material is in contact with moisture.

#### 10.4 Conditions to avoid

Avoid high temperatures, sources of ignition, and moisture.

#### 10.5 Incompatible materials

Water, strong bases, strong acids, strong oxidizing agents, alcohols, and amines.

#### 10.6 Hazardous decomposition products

Thermal oxidative decomposition of this product can produce CO, NOx, HCN, and HDI vapors. Some curing agents will react to produce a large amount of heat.

### **SECTION 11: Toxicological information**

### Information on toxicological effects

#### Acute toxicity

DERMAL LD50: > 9400 mg/kg (rabbit) ORAL LD50: > 2000 mg/kg (rat) INHALATION LC50: .49 mg/l, 490, (4 HR rat)

#### Germ cell mutagenicity

Product is a blend of material that has been shown to be Ames Negative (non mutogenic)

#### Carcinogenicity

IARC: Not Listed by IARC. NTP: Not listed by NTP. OSHA: Not listed by OSHA.

#### Additional information

This product does not contain substances considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens. The chemical, physical, and toxicological properties have not been thoroughly investigated or tested to the best of our knowledge.

### **SECTION 12: Ecological information**

ENVIRONMENTAL DATA: No environmental data has been established or is available for this product.

**GENERAL COMMENTS:** Avoid contaminating waterways.

### **SECTION 13: Disposal considerations**

#### **Disposal methods**

#### Product disposal

See the manufacturer's instructions to mix together with the proper components of multi-component materials and allow to harden. Dispose solids at an appropriate waste disposal facility according to current applicable laws and regulations.

#### Other disposal recommendations

Refer to Section 6. Accidental Release Measures for additional information.

# **SECTION 14: Transport information**

### DOT (US)

UN Number: 3082 Class: 9 Packing Group: III Proper Shipping Name: Other regulated substances, liquid, n.o.s. (contains 4,4'-Diphenylmethane Diisocyanate (MDI)) Reportable quantity (RQ): 10549 kg Other Shipping Information: When in individual containers of less than the Product RQ, this material ships as non-regulated.

### IMDG

Proper Shipping Name: Not Regulated

### ΙΑΤΑ

Proper Shipping Name: Not Regulated

# **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations specific for the product in question

UNITED STATES SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT) FIRE: No PRESSURE GENERATING: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes 313 REPORTABLE INGREDIENTS: 101-68-8 Diisocyanates

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT) CERCLA REGULATORY: 101-68-8 Diisocyanates

### **TSCA (TOXIC SUBSTANCE CONTROL ACT)**

TSCA STATUS: All ingredients in this mixture are listed with the TSCA Chemical Substance Inventory.

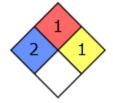
**REGULATIO NS STATE REGULATIONS:** The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS. Methylene bis(phenylisocyanate) (MDI) CAS# 101-68-8

New Jersey Environmental Hazardous Substances, New Jersey Workplace Hazardous Substances Pennsylvania Environmental Hazardous Substances, Pennsylvania Hazardous Substances

### **HMIS Rating**



### NFPA Rating



# **SECTION 16: Other information**

### 16.1 Further information/disclaimer

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty, or guarantee, expressed or implied, is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license of valid patents.



# **SECTION 1: Identification**

### 1.1 GHS Product identifier

Product name	Terapro PUR Patch V Part B
ribuuotinamo	

### 1.4 Supplier's details

Name Address Siplast 14911 Quorum Drive Suite 600 Dallas, TX 75254

Telephone

800-922-8800

### 1.5 Emergency phone number

800-424-9300 (CHEMTREC)

# **SECTION 2: Hazard identification**

### 2.1 Classification of the substance or mixture

### GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Eye damage/irritation, Cat. 2B

### 2.2 GHS label elements, including precautionary statements

### **Pictograms**



Signal word

Warning

Causes eye irritation

Hazard statement(s) H320

Precautionary statement(s) P264 P305+P351+P338

Wash face, hands, and any exposed skin thoroughly after handling. 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.
2.3	Other hazards which do not result in classification EMERGENCY OVERVIEW	
	Physical Appearance: Immediate Concerns:	Pigmented Liquid. USE WITH CAUTION! This product may cause eye, skin, and respiratory tract irritation. This product may cause allergic skin reaction.
	POTENTIAL HEALTH EFFECTS	
	Eyes:	May cause mild eye irritation include stinging, tearing, and redness.
	Skin:	May cause skin irritation. Prolonged or repeated contact may result in defatting and drying of the skin causing skin irritation and dermatitis (rash). Symptoms may include redness, burning and cracking of the skin.
	Ingestion:	May cause significant irritation to the digestive tract.
	Inhalation:	Irritating to the nose, throat and respiratory tract.

# **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

Chemical Name	Wt.%	CAS
Castor Oil	40-60	8001-79-4
Ethoxylated, Propoxylated Ethylenediamine	3-6	26316-40-5

### Trade secret statement (OSHA 1910.1200(i))

Criteria for listing components in this SDS are as follows: Carcinogens are listed at 0.1% or greater; hazardous components according to regulation 2012 OSHA Hazard Communication Standard: 29 CFR 1910.1200 are listed at 1.0% or greater; non-hazardous components are not listed. This is not intended to be the complete compositional disclosure. If a "Trade Secret" "(TS)" is claimed in accordance to paragraph (i) of 1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

# **SECTION 4: First-aid measures**

### 4.1 Description of necessary first-aid measures

If inhaled	Remove victim to fresh air and provide oxygen if breathing is difficult. Seek medical attention if cough or other symptoms develop.
In case of skin contact	Remove contaminated clothing and immediately wash affected skin area with plenty of soap and water. Seek medical attention. Either discard or wash contaminated clothing and shoes before reuse.
In case of eye contact	Immediately flush with plenty of water for two minutes. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Have eyes examined and tested by medical personnel.
If swallowed	Make sure victim is conscious and alert. If so, give 2-3 glasses of water to dilute. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Do not leave victim unattended as spontaneous vomiting my occur. Lay victim on side with head lower than waist to prevent aspiration of swallowed product. If victim is conscious and vomiting occurs, give water to further dilute the chemical.

### 5.1 Suitable extinguishing media

Dry Chemical, Foam, or Carbon Dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop spill or leak and to disperse vapors.

### 5.2 Specific hazards arising from the chemical

Oxides of Nitrogen, Oxides of Carbon.

### 5.3 Special protective actions for fire-fighters

Do not release runoff from fire control methods to sewers or waterways. Firefighting personnel are required to use respiratory and eye protection. Full fire protective equipment (Bunker Gear) and self-contained breathing apparatus (SCBA) is recommended to be used for all indoor fires and any significant outdoor fires. SCBA may not be required for small outdoor fires that may easily be extinguished with a portable fire extinguisher.

### **SECTION 6: Accidental release measures**

### 6.1 Personal precautions, protective equipment and emergency procedures

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 diatomaceous earth, sawdust, vermiculite, or any appropriate readily available material and sweep or shovel absorbed material into closed containers for disposal. After all visible traces, including ignitable vapors, have been removed thoroughly wash the contaminated 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.

Wear the appropriate personal protective equipment designated in Section 8, remove the leaking container to a containment area and place into an appropriate container to prevent any further spill.

Large Spill: Construct temporary dikes of dirt or sand to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on absorbent, such as diatomaceous earth, sawdust, vermiculite, or any appropriate readily available material and sweep or shovel adsorbed material into closed containers for disposal. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal.

Wear the appropriate personal protective equipment designated in Section 8, close or cap leaking valves and/or block or plug hole in leaking container. Remove the leaking containers to a containment area and place into an appropriate container to prevent any further spill.

Contain material as described above and call the local fire, police, or appropriate emergency response provider for immediate emergency assistance.

### 6.2 Environmental precautions

Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of material into sources of water.

### 6.3 Methods and materials for containment and cleaning up

Absorb spill with an emergency spill kit, diatomaceous earth, saw dust or equivalent inert material. Shovel up and dispose of at an appropriate waste disposal facility following applicable laws and regulations.

# **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Use with sufficient ventilation to keep employee exposure below recommended limits. Provide adequate ventilation for storage, handling and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure. Avoid breathing in vapors, mists, and aerosols. Do not allow product to contact open flame or electrical heating elements because dangerous decomposition products may form.

### 7.2 Conditions for safe storage, including any incompatibilities

Store product in original containers. Store container in a secure cool, dry, well-ventilated area at 55-85 deg. F. Opened containers should be blanketed with nitrogen gas at atmospheric pressure to avoid reaction with moisture. Contamination with moisture or "basic" compounds can cause dangerous pressure buildup in closed containers. Store and warehouse product in an appropriate area or facility. Segregate like materials together to avoid negative chemical reactions. Protect materials from excessive exposure to heat. Observe proper storage conditions and temperatures. If bulging of containers occurs, transfer to a well-ventilated area and open carefully to relieve pressure then reseal.

### **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

1. Castor Oil (CAS: 8001-79-4 EC: 232-293-8) REL-TWA: 10 mg/m3 (Total) (NIOSH)

REL-TWA: 5 mg/m3 (Resp) (NIOSH)

### 8.2 Appropriate engineering controls

Proper industrial hygiene practices are required for workers and should be achieved through engineering controls including ventilation with a high turnover rate whenever feasible. When such controls are not available or not feasible to achieve full protection, respirators for workers (and others in the area) and other personal protective equipment is mandated. Exhaust air may need to be scrubbed (cleaned) or filtered to reduce environmental contamination and odors.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

Wear safety goggles or safety glasses with side shields when handling and mixing this material.

### **Skin protection**

Wear impervious compatible chemical resistant protective clothing such as neoprene or butyl rubber gloves, aprons, boots or Tyvek coveralls, as appropriate to prevent contact with skin.

### **Respiratory protection**

For respirator selection and training, seek professional advice. Whenever workplace conditions require a use of a respirator, follow a respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements. Wear an OSHA/NIOSH approved respirator selected on its suitability to provide adequate worker protection for the chemicals used and given working conditions including the level of airborne contamination and presence of sufficient oxygen.

### **Environmental exposure controls**

Always follow "Good personal hygiene practices" when working with this material. Always practice "good personal hygiene" during and after use of this materials, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. DO NOT eat, drink, or smoke in work areas that contain hazardous chemicals.

# **SECTION 9: Physical and chemical properties**

### Basic physical and chemical properties

Physical state Appearance Color Odor Odor threshold Liquid Viscous Liquid Amber Odorless No data available.

- Melting point/freezing point Boiling point or initial boiling point and boiling range Flammability Lower and upper explosion limit/flammability limit Flash point Explosive properties Auto-ignition temperature Decomposition temperature Oxidizing properties pН Kinematic viscosity Solubility Partition coefficient n-octanol/water (log value) Vapor pressure Evaporation rate Density and/or relative density Relative vapor density
- No data available. > 300°C (572°F) No data available. No data available. > 200°C (392°F) Closed Cup No data available. Not Available No data available. No data available. No data available. 2000 to 3000 cPs at 25°C Insoluble No data available. No data available. No data available. 1.30 g/cm3 at 25°C No data available.

### Particle characteristics

No data available.

### Supplemental information regarding physical hazard classes

(VOC): to 0 g/l Calculated Notes: VOC listed on the SDS is for this component only. Mixed VOC for the combined product may have a different value.

(VOC): to 5 g/l Estimated After Mixed

### Further safety characteristics (supplemental)

Partition Coefficient: N-octanol/Water: No data available

# **SECTION 10: Stability and reactivity**

### 10.1 Reactivity

Yes

### 10.2 Chemical stability

This material (product) is stable under normal ambient conditions of temperature and pressure. Follow recommendations for proper storage and use.

- **10.3 Possibility of hazardous reactions** Will not occur.
- **10.4 Conditions to avoid** Protect from freezing.
- **10.5** Incompatible materials Acids, alkalis, and oxidizing agents.
- **10.6 Hazardous decomposition products** Carbon monoxide, carbon dioxide, aldehydes.

# **SECTION 11: Toxicological information**

Information on toxicological effects

#### Carcinogenicity

IARC: Not Listed by IARC. NTP: Not listed by NTP. OSHA: Not listed by OSHA.

#### Summary of evaluation of the CMR properties

The chemical, physical, and toxicological properties have not been thoroughly investigated or tested to the best of our knowledge.

### **SECTION 12: Ecological information**

ENVIRONMENTAL DATA: No environmental data has been established or is available for this product.

**GENERAL COMMENTS:** Avoid contaminating waterways.

### **SECTION 13: Disposal considerations**

#### Disposal methods

#### Product disposal

See the manufacturer's instructions to mix together with the proper components of multi-component materials and allow to harden. Dispose solids at an appropriate waste disposal facility according to current applicable laws and regulations.

#### Other disposal recommendations

Refer to Section 6. Accidental Release Measures for additional information.

### **SECTION 14: Transport information**

### DOT (US)

Proper Shipping Name: Not Regulated

#### IMDG

Proper Shipping Name: Not Regulated

#### ΙΑΤΑ

Proper Shipping Name: Not Regulated

### **SECTION 15: Regulatory information**

#### 15.1 Safety, health and environmental regulations specific for the product in question

UNITED STATES SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT) FIRE: No PRESSURE GENERATING: No REACTIVITY: No ACUTE: Yes CHRONIC: No

#### **TSCA (TOXIC SUBSTANCE CONTROL ACT)**

TSCA STATUS: All ingredients in this mixture are listed with the TSCA Chemical Substance Inventory.

# **REGULATIONS STATE REGULATIONS:** The following product components are cited on certain state lists as mentioned. Non-listed

components may be shown in the composition section of the MSDS.

New Jersey Environmental Hazardous Substances, New Jersey Workplace Hazardous Substances

Pennsylvania Environmental Hazardous Substances, Pennsylvania Hazardous Substances

**DOMESTIC SUBSTANCE LIST (INVENTORY):** This product or its components are listed or exempt from the Canadian Domestic Substance List (DSL). Components not listed have been submitted to Environment Canada.

### **HMIS Rating**



# **SECTION 16: Other information**

### 16.1 Further information/disclaimer

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