

Safety Data Sheet

Material Name: Mule-Hide TPO Bonding Adhesive

SDS 10-2310

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Mule-Hide TPO Bonding Adhesive

Synonyms

Contact Adhesive

Chemical Family

Adhesive

Product Use

Contact Adhesive for TPO Single-ply roofing.

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

Section 2 - HAZARDS IDENTIFICATION

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

Flammable Liquids - Category 2

Aspiration Hazard - Category 1

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 2A

Skin Sensitization - Category 1A

Carcinogenicity - Category 2

Reproductive Toxicity - Category 1B

Specific Target Organ Toxicity - Single Exposure - Category 1 (central nervous system, kidneys, liver, respiratory system)

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 1 (central nervous system, respiratory system)

Specific Target Organ Toxicity - Repeated Exposure - Category 2 (blood, liver)

GHS Label Elements

Symbol(s)

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Signal Word

Danger

Hazard Statement(s)

Highly flammable liquid and vapor
May be fatal if swallowed and enters airways
Causes skin irritation
Causes serious eye irritation
May cause allergic skin reaction
Suspected of causing cancer
May damage fertility or the unborn child
Causes damage to organs
May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure
May cause damage to organs through prolonged or repeated exposure

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
Do not breathe dust/fume/gas/mist/vapours/spray
Wash thoroughly after handling
Contaminated work clothing must not be allowed out of the workplace
Do not eat, drink or smoke when using this product

Response

In case of fire: Use appropriate media to extinguish
If exposed: Call a POISON CENTER or doctor/physician
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor 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

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IF SWALLOWED: Immediately call a POISON CENTER/doctor
Do NOT induce vomiting
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

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| CAS | Component Name | Percent |
|--------------|---------------------------------------------|---------|
| Mixture | Polychloroprene | 7-13 |
| Mixture | Styrene butadiene polymer | 0.5-1.5 |
| Mixture | Chlorinated polypropylene | 0.1-1 |
| Trade Secret | Polyphenol antioxidant | 0.1-1 |
| 1309-48-4 | Magnesium oxide | 0.1-1 |
| 1314-13-2 | Zinc oxide | 0.1-1 |
| Trade Secret | Heat reactive phenolic resin | 1-5 |
| 108-88-3 | Toluene | 15-40 |
| 64742-89-8 | Solvent naphtha, petroleum, light aliphatic | 10-30 |
| 67-64-1 | Acetone | 5-10 |
| 1330-20-7 | Xylene | 0.5-1.5 |
| 100-41-4 | Ethylbenzene | 0.1-1 |

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

If exposed or concerned: Call a POISON CENTER or doctor/physician.

Inhalation

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Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

Skin

Remove contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation or rash occurs, seek medical advice/attention.

Eyes

Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause allergic skin reaction. Causes damage to central nervous system, kidneys, liver, and respiratory system. May cause drowsiness or dizziness.

Delayed

Suspected of causing cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure: central nervous system, respiratory system, blood, liver.

Note to Physicians

Contains: toluene, heptane.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Dry chemical, foam or carbon dioxide. Water may be ineffective.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Highly flammable liquid and vapor. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flashback.

Hazardous Combustion Products

Oxides of carbon, oxides of nitrogen

Advice for firefighters

Keep away from heat/sparks/open flame/hot surfaces - No smoking. Ground/bond container and receiving equipment. Take action to prevent static discharges.

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Fire Fighting Measures

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Remove all sources of ignition. Avoid breathing vapors. Ventilate affected area. Absorb with earth, sand or other non-combustible material and transfer to container. Dike for later disposal. Dispose in accordance with all applicable regulations.

Environmental Precautions

Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

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, and hot surfaces - No smoking. Ground/bond container and receiving equipment. Use explosion-proof equipment. Take precautionary measures against static discharge. Use non-sparking tools. Use only outdoors or in a well-ventilated area. Vapors will travel. Prevent vapors from entering buildings through open windows or ventilation systems. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. 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 away from heat and ignition sources. Do not cut, puncture, or weld on or near this container. Empty containers may contain product residue.

Incompatible Materials

Acids, bases, strong oxidizing agents

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

| | |
|----------------------------------|------------------------------------------------------------------------------|
| Styrene butadiene polymer | Mixture |
| NIOSH: | 10 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable dust |

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| OSHA (US): | 15 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable fraction | |
| Mexico: | 10 mg/m ³ TWA LMPE-PPT | 20 mg/m ³ STEL [LMPE-CT] |
| | | |
| Magnesium oxide | 1309-48-4 | |
| ACGIH: | 10 mg/m ³ TWA inhalable fraction | |
| NIOSH: | 750 mg/m ³ IDLH fume | |
| OSHA (US): | 15 mg/m ³ TWA fume, total particulate | |
| Mexico: | 10 mg/m ³ TWA LMPE-PPT as Mg fume | |
| | | |
| Zinc oxide | 1314-13-2 | |
| ACGIH: | 2 mg/m ³ TWA respirable fraction | 10 mg/m ³ STEL respirable fraction |
| NIOSH: | 5 mg/m ³ TWA dust and fume | 10 mg/m ³ STEL fume |
| | 15 mg/m ³ Ceiling dust | 500 mg/m ³ IDLH |
| OSHA (US): | 5 mg/m ³ TWA fume; 15 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable fraction | |
| Mexico: | 5 mg/m ³ TWA LMPE-PPT fume; 10 mg/m ³ TWA LMPE-PPT dust | |
| | 10 mg/m ³ STEL [LMPE-CT] fume | |
| | | |
| Toluene | 108-88-3 | |
| ACGIH: | 20 ppm TWA | |
| NIOSH: | 100 ppm TWA; 375 mg/m ³ TWA | 150 ppm STEL; 560 mg/m ³ STEL |
| | 500 ppm IDLH | |
| Europe: | 50 ppm TWA; 192 mg/m ³ TWA | 100 ppm STEL; 384 mg/m ³ STEL |
| | Possibility of significant uptake through the skin | |
| OSHA (US): | 200 ppm TWA | 300 ppm Ceiling |
| Mexico: | 50 ppm TWA LMPE-PPT; 188 mg/m ³ TWA LMPE-PPT | |
| | Skin - potential for cutaneous absorption | |
| | | |

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| | | |
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| Acetone | 67-64-1 | |
| ACGIH: | 250 ppm TWA | 500 ppm STEL |
| NIOSH: | 250 ppm TWA; 590 mg/m ³ TWA | 2500 ppm IDLH (10% LEL) |
| Europe: | 500 ppm TWA; 1210 mg/m ³ TWA | |
| OSHA (US): | 1000 ppm TWA; 2400 mg/m ³ TWA | |
| Mexico: | 1000 ppm TWA LMPE-PPT; 2400 mg/m ³ TWA LMPE-PPT | |
| | 1260 ppm STEL [LMPE-CT]; 3000 mg/m ³ STEL [LMPE-CT] | |
| | | |
| Xylene | 1330-20-7 | |
| ACGIH: | 100 ppm TWA | 150 ppm STEL |
| Europe: | 50 ppm TWA (pure); 221 mg/m ³ TWA (pure) | 100 ppm STEL (pure); 442 mg/m ³ STEL (pure) |
| | Possibility of significant uptake through the skin | |
| OSHA (US): | 100 ppm TWA; 435 mg/m ³ TWA | |
| Mexico: | 100 ppm TWA LMPE-PPT; 435 mg/m ³ TWA LMPE-PPT | |
| | 150 ppm STEL [LMPE-CT]; 655 mg/m ³ STEL [LMPE-CT] | |
| | | |
| Ethylbenzene | 100-41-4 | |
| ACGIH: | 20 ppm TWA | |
| NIOSH: | 100 ppm TWA; 435 mg/m ³ TWA | 125 ppm STEL; 545 mg/m ³ STEL |
| | 800 ppm IDLH (10% LEL) | |
| Europe: | 100 ppm TWA; 442 mg/m ³ TWA | 200 ppm STEL; 884 mg/m ³ STEL |
| | Possibility of significant uptake through the skin | |
| OSHA (US): | 100 ppm TWA; 435 mg/m ³ TWA | |
| Mexico: | 100 ppm TWA LMPE-PPT; 435 mg/m ³ TWA LMPE-PPT | |
| | 125 ppm STEL [LMPE-CT]; 545 mg/m ³ STEL [LMPE-CT] | |

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.

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Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear chemical safety goggles with a faceshield to protect against skin and eye contact when appropriate.

Skin Protection

Wear work clothes with long sleeves. Wear protective shoes.

Respiratory Protection

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|------------------------------|----------------------------|-----------------------------------------------|--------------------------|
| Appearance | yellowish liquid | Physical State | liquid |
| Odor | hydrocarbon | Color | yellowish |
| Odor Threshold | Not available | pH | Not available |
| Melting Point | -95 - -47 °C (-139--53 °F) | Boiling Point | 56 - 137 °C (133-279 °F) |
| Freezing point | Not available | Evaporation Rate | 3.2 |
| Boiling Point Range | Not available | Flammability (solid, gas) | Not available |
| Autoignition | 230 °C (475 °F) | Flash Point | -20 °C (-4 °F) |
| Lower Explosive Limit | 1 % | Decomposition | Not available |
| Upper Explosive Limit | 12.8 % | Vapor Pressure | 54.1 mmHg |
| Vapor Density (air=1) | 3.2 | Specific Gravity (water=1) | Not available |
| Water Solubility | Negligible | Partition coefficient: n-octanol/water | Not available |
| Viscosity | 2500 cps | Solubility (Other) | Hydrocarbons |
| Density | 0.849 (relative) | VOC | 670 g/L |

Other Information

No additional information available.

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Section 10 - STABILITY AND REACTIVITY

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 heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials

Acids, bases, strong oxidizing agents

Hazardous decomposition products

Oxides of carbon, oxides of nitrogen

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause drowsiness or dizziness. May cause respiratory irritation.

Skin Contact

Causes skin irritation. May cause allergic skin reaction.

Eye Contact

Causes serious eye irritation.

Ingestion

May be fatal if swallowed and enters airways. May cause gastrointestinal irritation.

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:

Polychloroprene (Mixture)

Oral LD50 Rat 20000 mg/kg

Styrene butadiene polymer (Mixture)

Oral LD50 Rat 6450 mg/kg

Chlorinated polypropylene (Mixture)

Oral LD50 Rat 5000 mg/kg

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Polyphenol antioxidant (Trade Secret)

Oral LD50 Rat >5000 mg/kg

Dermal LD50 Rabbit >5000 mg/kg

Inhalation LC50 Rat >165 mg/L 1 h

Magnesium oxide (1309-48-4)

Oral LD50 Rat >5000 mg/kg

Zinc oxide (1314-13-2)

Oral LD50 Rat >15000 mg/kg

Inhalation LC50 Rat >5.7 mg/L

Toluene (108-88-3)

Oral LD50 Rat >7000 mg/kg

Dermal LD50 Rabbit 12 - 14 g/kg

Inhalation LC50 Rat 30 - 35 mg/L

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

Oral LD50 Rat >2000 mg/kg

Dermal LD50 Rat >2000 mg/kg

Inhalation LC50 Rat >5000 ppm 1 hr

Acetone (67-64-1)

Oral LD50 Rat 5800 mg/kg

Dermal LD50 Guinea pig >7246 mg/kg

Inhalation LC50 Rat 32000 ppm 4 h

Xylene (1330-20-7)

Oral LD50 Rat 4300 mg/kg

Dermal LD50 Rabbit >2000 mg/kg

Inhalation LC50 Rat 29.08 mg/L 4 h

Ethylbenzene (100-41-4)

Oral LD50 Rat 3500 mg/kg

Dermal LD50 Rabbit 15400 mg/kg

Inhalation LC50 Rat 4000 ppm 4 hr

Immediate Effects

May be fatal if swallowed and enters airways. Cause skin irritation. Causes serious eye irritation. May cause allergic skin reaction. Causes damage to central nervous system, kidneys, liver, and respiratory system. May cause drowsiness or dizziness.

Delayed Effects

Suspected of causing cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure: central nervous system, respiratory system, blood, liver.

Irritation/Corrosivity Data

Causes skin irritation. Causes serious eye irritation.

Respiratory Sensitization

No data available.

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Dermal Sensitization

May cause allergic skin reaction.

Component Carcinogenicity

| | |
|------------------------|-----------------------------------------------------------------------|
| Polychloroprene | Mixture |
| IARC: | Supplement 7 [1987]; Monograph 19 [1979] (Group 3 (not classifiable)) |
| | |
| Magnesium oxide | 1309-48-4 |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| | |
| Toluene | 108-88-3 |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| IARC: | Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable)) |
| | |
| Acetone | 67-64-1 |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| | |
| Xylene | 1330-20-7 |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| IARC: | Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable)) |
| | |
| Ethylbenzene | 100-41-4 |
| ACGIH: | A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans |
| IARC: | Monograph 77 [2000] (Group 2B (possibly carcinogenic to humans)) |
| DFG: | Category 4 (no significant contribution to human cancer) |
| OSHA: | Present |

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

central nervous system, liver, respiratory system, kidneys

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Specific Target Organ Toxicity - Repeated Exposure

central nervous system, liver, respiratory system, blood

Aspiration hazard

May be fatal if swallowed and enters airways.

Medical Conditions Aggravated by Exposure

May cause allergic skin reaction. Aspiration into the lungs may cause chemical pneumonitis.

Additional Data

No additional information available.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Avoid release to the environment.

Component Analysis - Aquatic Toxicity

| | |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Polyphenol antioxidant | Trade Secret |
| Fish: | LC50 96 h Oncorhynchus mykiss >0.2 mg/L [semi-static] |
| Algae: | EC50 72 h Pseudokirchneriella subcapitata >0.2 mg/L IUCLID |
| Invertebrate: | EC50 48 h Daphnia magna >0.2 mg/L IUCLID |
| | |
| Toluene | 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]; 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 |
| | |
| Solvent naphtha, petroleum, light aliphatic | 64742-89-8 |

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| | |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Algae: | EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID |
| | |
| Acetone | 67-64-1 |
| Fish: | LC50 96 h Oncorhynchus mykiss 4.74 - 6.33 mL/L; LC50 96 h Pimephales promelas 6210 - 8120 mg/L [static]; LC50 96 h Lepomis macrochirus 8300 mg/L |
| Invertebrate: | EC50 48 h Daphnia magna 10294 - 17704 mg/L [static] EPA; EC50 48 h Daphnia magna 12600 - 12700 mg/L IUCLID |
| | |
| Xylene | 1330-20-7 |
| Fish: | LC50 96 h Pimephales promelas 13.4 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 2.661 - 4.093 mg/L [static]; LC50 96 h Oncorhynchus mykiss 13.5 - 17.3 mg/L; LC50 96 h Lepomis macrochirus 13.1 - 16.5 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 19 mg/L; LC50 96 h Lepomis macrochirus 7.711 - 9.591 mg/L [static]; LC50 96 h Pimephales promelas 23.53 - 29.97 mg/L [static]; LC50 96 h Cyprinus carpio 780 mg/L [semi-static]; LC50 96 h Cyprinus carpio >780 mg/L; LC50 96 h Poecilia reticulata 30.26 - 40.75 mg/L [static] |
| Invertebrate: | EC50 48 h water flea 3.82 mg/L; LC50 48 h Gammarus lacustris 0.6 mg/L |
| | |
| Ethylbenzene | 100-41-4 |
| Fish: | LC50 96 h Oncorhynchus mykiss 11 - 18 mg/L [static]; LC50 96 h Oncorhynchus mykiss 4.2 mg/L [semi-static]; LC50 96 h Pimephales promelas 7.55 - 11 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 32 mg/L [static]; LC50 96 h Pimephales promelas 9.1 - 15.6 mg/L [static]; LC50 96 h Poecilia reticulata 9.6 mg/L [static] |
| Algae: | EC50 72 h Pseudokirchneriella subcapitata 4.6 mg/L IUCLID; EC50 96 h Pseudokirchneriella subcapitata >438 mg/L IUCLID; EC50 72 h Pseudokirchneriella subcapitata 2.6 - 11.3 mg/L [static] EPA; EC50 96 h Pseudokirchneriella subcapitata 1.7 - 7.6 mg/L [static] EPA |
| Invertebrate: | EC50 48 h Daphnia magna 1.8 - 2.4 mg/L IUCLID |

Persistence and Degradability

No information available for the product.



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Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

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

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: Adhesives

Hazard Class: 3

UN/NA #: UN1133

Packing Group: II

Required Label(s): 3

Additional information: Special Provisions (172.102): 149, B52, IB2, T4, TP1, TP8

IATA Information:

UN#: UN1133

IMDG Information:

UN#: UN1133

TDG Information:

UN#: UN1133

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 |

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| | |
|---------------------|------------------------------------|
| Acetone | 67-64-1 |
| CERCLA: | 5000 lb final RQ; 2270 kg final RQ |
| Xylene | 1330-20-7 |
| SARA 313: | 1 % de minimis concentration |
| CERCLA: | 100 lb final RQ; 45.4 kg final RQ |
| Ethylbenzene | 100-41-4 |
| SARA 313: | 0.1 % de minimis concentration |
| CERCLA: | 1000 lb final RQ; 454 kg final RQ |

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 |
|---------------------------|-----------|-----|-----|-----|-----|-----|
| Styrene butadiene polymer | Mixture | No | Yes | Yes | Yes | Yes |
| Magnesium oxide | 1309-48-4 | Yes | Yes | Yes | Yes | Yes |
| Zinc oxide | 1314-13-2 | Yes | Yes | Yes | Yes | Yes |
| Toluene | 108-88-3 | Yes | Yes | Yes | Yes | Yes |
| Acetone | 67-64-1 | Yes | Yes | Yes | Yes | Yes |
| Xylene | 1330-20-7 | Yes | Yes | Yes | Yes | Yes |
| Ethylbenzene | 100-41-4 | 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 cancer

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 |
| Ethylbenzene | 100-41-4 |
| Carc: | carcinogen , 6/11/2004 |

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

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products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

| | |
|------------------------|-----------|
| Magnesium oxide | 1309-48-4 |
| | 1 % |
| Zinc oxide | 1314-13-2 |
| | 1 % |
| Toluene | 108-88-3 |
| | 1 % |
| Acetone | 67-64-1 |
| | 1 % |
| Ethylbenzene | 100-41-4 |
| | 0.1 % |

Component Analysis - Inventory
Polychloroprene (Mixture)

| 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 | Yes |

Styrene butadiene polymer (Mixture)

| US | CA | EU | AU | PH | JP - ENCS | JP - ISHL | KR - KECI/KECL | KR - TCCA | CN | NZ | MX |
|-----|-----|-----|-----|-----|-----------|-----------|----------------|-----------|-----|-----|-----|
| Yes | NSL | EIN | Yes | Yes | Yes | No | Yes | No | Yes | Yes | Yes |

Chlorinated polypropylene (Mixture)

| 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 |

Polyphenol antioxidant (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 | No |

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Magnesium oxide (1309-48-4)

| 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 |

Zinc oxide (1314-13-2)

| 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 |

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 |

Solvent naphtha, petroleum, light aliphatic (64742-89-8)

| US | CA | EU | AU | PH | JP - ENCS | JP - ISHL | KR - KECI/KECL | KR - TCCA | CN | NZ | MX |
|-----|-----|-----|-----|-----|-----------|-----------|----------------|-----------|-----|-----|-----|
| Yes | DSL | EIN | Yes | Yes | No | No | Yes | No | Yes | Yes | Yes |

Acetone (67-64-1)

| 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 |

Xylene (1330-20-7)

| 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 |

Ethylbenzene (100-41-4)

| 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 |

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Yellow dye (2481-94-9)

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----------|-----------|----------------|-----------|-----|-----|-----|
| 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 |

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2* Fire: 3 Reactivity: 0

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

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



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