

Material Name: Helix® Max Low-Rise Adhesive - Dual Tank - Part B SDS No: 10-2616B

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Helix® Max Low-Rise Adhesive - Dual Tank - Part B

Synonyms

Low pressure polyurethane foam adhesive

Product Use

Membrane and Insulation Adhesive

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 Drive Beloit, WI 53512

USA

Phone: 800-786-1492

Section 2 - HAZARDS IDENTIFICATION

Classification of substance or mixture

Product definition: Mixture

Classification: Gases Under Pressure- Compressed Gas

Skin Irritation- Category 2 Eye Irritation- Category 2A

Reproductive Toxicity- Category 2 (fertility) Reproductive Toxicity- Category 2 (unborn child)

Specific Target Organ Toxicity, Repeated Exposure- Category 2 (oral) (STOT RE 2)

Label elements

Labeling (Regulation (EC) No 1272/2008)

Hazard Symbols:



Signal Word: WARNING

Hazard Statements:

Contains gas under pressure; may explode if heated

Causes skin irritation



Material Name: Helix® Max Low-Rise Adhesive - Dual Tank - Part B SDS No: 10-2616B

Causes serious eye irritation

May cause damage to organs (kidney) through prolonged or repeated exposure (oral)

Suspected of damaging fertility. Suspected of damaging the unborn child

Prevention:

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Pressurized container: Do not pierce or burn, even after use.

Do not breathe dust, gas, mist, or vapours

Wash hands and other skin areas exposed to material thoroughly after handling

Use outdoors or in a well-ventilated area

Wear protective gloves, protective clothing and eye protection

Response:

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

Specific treatment: Seek immediate medical advice. Refer to product label and Section 4 of this SDS

If skin irritation or rash occurs: Get medical attention

If eye irritation persists: Get medical attention

Take off contaminated clothing and wash before reuse.

Storage:

Store locked up

Protect from sunlight. Store in a well-ventilated place.

Disposal:

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

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200 This product does not contain any components classified as hazardous under the referenced regulation.

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS	Component Name	Percent
Trade Secret	Proprietary Polyol Blend	
13674-84-5	tris(2-chloro-1-methylethyl)phosphate	7-10
111-46-6	Diethylene Glycol	10-15
811-97-2	1,1,1,2- Tetrafluoroethane	3-7
56968-08-2 Glycine, N-((2-hydroxy-5-nonylphenyl)methyl)-N-methyl-monosodium salt		0.3-1
108-01-0	2-dimethlaminoehtanol	0.3-1

Page 2 of 11 Issue date: 2015-05-08 Revision 1.0 Print date: 2016-06-17



Material Name: Helix® Max Low-Rise Adhesive - Dual Tank - Part B SDS No: 10-2616B

98-94-2	Cyclohexyldimehtylamine	0.1 -0.3
280-57-9	Triethylenediamine	0.1 -0.3

Section 4 - FIRST AID MEASURES

Inhalation

If product vapors causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen. If respiratory arrest occurs, start artificial respiration by a trained individual. Loosen tight fitting clothing such as a jacket or tie. Seek medical attention immediately.

Skin

Flush skin with large amounts of water while removing contaminated clothing. Gently wipe product from skin with a damp cloth and continue rinsing for 15 minutes. Wash clothing before reuse. Call a physician if irritation persists.

Eyes

Immediately flush eyes with large amounts of water for at least 15 minutes, holding the eyes open with fingers and occasionally lifting the upper and lower lids. Use lukewarm water if possible. If present and easy to do, remove contact lenses. If irritation persists, get medical attention.

Ingestion

If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

Most Important Symptoms/Effects

Inhalation

Mist or vapor may cause irritation of the nose, throat and respiratory tract. Symptoms may include sore throat, coughing, headache, nausea and shortness of breath. Inhalation of propellant may cause lightheadedness, headache and lethargy.

Eve

May cause eye irritation. Symptoms may include redness, swelling, stinging, and tearing. May cause temporary corneal injury. Product vapor may cause eye irritation with symptoms of burning and tearing.

Skin

May cause mild skin irritation. Symptoms may include localized redness and discomfort.

Ingestion

May cause gastrointestinal irritation: stomach distress, nausea, or vomiting. Repeated ingestion may be harmful.

Chronic

Pre-existing disorders of the skin and respiratory system may be aggravated by exposure to this product. Diethylene glycol has caused reproductive and developmental effects in some laboratory animal's tests.

Note to physician

If case of an accident or if you feel unwell, seek medical advice immediately (show label or SDS if possible).

Page 3 of 11 Issue date: 2015-05-08 Revision 1.0 Print date: 2016-06-17



Material Name: Helix® Max Low-Rise Adhesive - Dual Tank - Part B SDS No: 10-2616B

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use dry chemical, carbon dioxide, alcohol resistant foams and water spray

Unsuitable methods of extinction

None

Special Hazards Arising from the Chemical

Cans, cylinders, or refillable tanks may explode due to the buildup of pressure when exposed to extreme heat. Highly toxic gases may be generated by thermal decomposition or combustion. Overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed.

Advice for firefighters

Keep upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray to keep fire-exposed containers cool.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective equipment recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Ventilate the area.

Methods and Materials for Containment and Cleaning Up

Cover drains and contain spill. Cover spilled material with a large quantity of inert absorbent. Collect material and place into an approved, open-head metal container. Clean contaminated area with soap and water.

Environmental Precautions

Avoid dispersal of spilled material or run-off and prevent contact with soil and entry into drains, sewers or waterways.

Reference to other sections

For indications about waste treatment, see Section 13

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Observe label precautions. Wear all appropriate protective equipment specified in Section 8. Keep containers closed when not in use.

Protection against fire and explosion:

Contents under pressure. Exposure to high temperatures can cause containers to rupture or explode.

Conditions for Safe Storage, Including any Incompatibilities

Store in a dry, well-ventilated area and away from incompatible materials (see Section 10.5). Storage temperature is 60-90°F (16-32°C). Products stored below 60°F (16°C) or above 90°F (32°C) must be given adequate time to warm up/cool down. Do not expose the tanks/kits to open flame or temperatures

Page 4 of 11 Issue date: 2015-05-08 Revision 1.0 Print date: 2016-06-17



SDS No: 10-2616B

Material Name: Helix® Max Low-Rise Adhesive - Dual Tank - Part B

above 122°F (50°C); storage at elevated temperatures can cause the container to rupture. Excessive heat can cause premature aging of components resulting in a shorter shelf life. Protect unused product from freezing. Storage below 60°F (16°C) may affect foam quality if chemicals are not warmed to room temperature before using. Protect containers from physical abuse. Always store the containers in the upright position. KEEP OUT OF REACH OF CHILDREN.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Diethylene Glycol	111-46-6
WEEL	10 mg/kg
1,1,1,2 Tetrafluoroethane	811-97-2
WEEL	1,000 ppm

Engineering Controls:

Use local and general exhaust ventilation to control levels of exposure.

Eye/face protection:

Wear protective goggles or safety glasses with side shields.

Respiratory Protection:

Atmospheric levels should be maintained below the exposure guidelines. Use products only in a well-ventilated area. Engineering and administrative (work practices) controls should be implemented to protect the workers. If atmospheric levels are expected to exceed the exposure levels, use a NIOSH approved air purifying respirator equipped with an organic vapor cartridge and a particulate filter. If atmospheric levels exceed 10 times the TLV or PEL level for which an air-purifying respirator is effective, use a powered air purifying respirator (PAPR). The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). The odor and irritancy of this material is inadequate to warn of excessive exposure.

Hand protection:

Use chemically resistant gloves (i.e. Nitrile gloves). Nitrile/butadiene rubber, butyl rubber, polyethylene, PVC (vinyl), or neoprene gloves are also effective. Glove selection should take into account potential body reactions to certain materials and manufacturer's instructions for use. Break through time of selected gloves must be greater than the intended use period.

Other Protective Equipment

Use clothing that protects against dermal exposure. Appropriate protective clothing varies depending on the potential for exposure. To ensure proper skin protection, wear PPE in such a manner that no skin is exposed

Hygiene measures:

An eye wash station or portable eye wash station should be in the area. Wash hands thoroughly after use, before eating, drinking or using the lavatory. Employees/Users should be educated and trained in the safe use and handling of this product.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Page 5 of 11 Issue date: 2015-05-08 Revision 1.0 Print date: 2016-06-17



Material Name: Helix® Max Low-Rise Adhesive - Dual Tank - Part B SDS No: 10-2616B

General physical form	Clear to light yellow liquid. Forms an off-white to yellowish froth when released from the container				
Odor	Slight fluorocarbon and amine odor	Physical State	liquid		
Odor Threshold	Not available	Color	Clear to light yellow		
		рН	Not available		
Freezing point	Not available	Evaporation Rate	Not available		
Boiling Point	Propellant -26°C (-15°F), >93 °C (> 200°F) Resin	Flammability (solid, gas)	Not applicable		
Autoignition	Not available	Flash Point	Approx. >93°C (200°F)		
Density (20 °C)	Approx. 1.1 g/cm ³	Decomposition	Not available		
Self Igniting	Not self ingniting	Vapor Pressure(40 °C)	<1 mm Hg		
Vapor Density (air=1)	N/A	Specific Gravity (water=1)	Not available		
Water Solubility	Partially soluble	Partition coefficient: n- octanol/water	Not available		

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Stable under normal conditions of use and recommended storage conditions. See Section 7 for storage recommendations.

Possibility of hazardous reactions

Exposure to elevated temperatures can cause containers to rupture or explode. Contents are under pressure.

Conditions to avoid

Temperatures below 60°F (16°C) or temperatures above 90°F (32°C). Avoid heat and flames.

Incompatible materials

Isocyanates, acids and strong oxidizers.

Hazardous decomposition products

May include, and are not limited to: oxides of carbon, oxides of nitrogen, hydrogen fluoride and traces of hydrogen cyanide.

Page 6 of 11 Issue date: 2015-05-08 Revision 1.0 Print date: 2016-06-17



Material Name: Helix® Max Low-Rise Adhesive - Dual Tank - Part B SDS No: 10-2616B

Section 11 - TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity: No known acute effects

Assessment other acute effects

Assessment of STOT single: Based on the available information there is no specific target organ toxicity to be expected after a single exposure. Based on expert judgement

Skin irritation

Skin contact causes irritation

Eve irritation

Causes eye irritation

Sensitization

No data available. Chemical structure does not suggest a sensitizing effect.

Genotoxicity

No data available

Mutagenicity

No data available

Specific organ toxicity- single exposure

No data available

Specific organ toxicity- repeated exposure

No data available

Aspiration hazard

No data available

Further information

Assessment of mutagenicity: The chemical structure does not suggest a specific alert for such an effect. Assessment of repeated dose toxicity: repeated exposure may affect certain organs. Assessment of carcinogenicity: The chemical structure does not suggest a specific alert for such an effect. Reproductive toxicity: the results of animal studies suggest a fertility impairing effect. Assessment of teratogenicity: indications of possible developmental toxicity/teratogenicity were seen in animal studies. This product has not been tested. These statements are based on the properties of the individual components.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

The ecotoxicity of this product has not been experimentally determined. However, it is expected to have low acute aquatic toxicity based on the acute aquatic toxicity of the individual components and their concentrations in this composition.

Persistence and degradability

Poorly biodegradable

Bioaccumulation potential

Product is not expected to bioaccumulate

Page 7 of 11 Issue date: 2015-05-08 Revision 1.0 Print date: 2016-06-17



Material Name: Helix® Max Low-Rise Adhesive - Dual Tank - Part B SDS No: 10-2616B

Mobility in soil

Not expected to adsorb to solid soil phase

Results of PBT and vPvB assessment

No data available

Other adverse effects

Additional ecological information: Do not allow material to run into surface waters, wastewater, or soil. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal

Section 13 - DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Always wear proper protective equipment as you would while spraying the two-component foam in a well-ventilated area.

Procedure for handling empty or partially used disposable cylinders:

- 1. DO NOT INCINERATE TANKS
- 2. Dispense the foam into a waste container like a cardboard box or plastic bag. Depressurize the used cylinders using the dispensing unit with a new nozzle attached. Spray the foam until one of the components/cylinders no longer sprays chemical.
- 3. Remove the nozzle and then continue to depressurize by dispensing the chemicals into a waste container (a box lined with a plastic bag) that has adequate industrial liquid absorbing medium in the bottom. Dispense the residual chemicals until the pressure is down to a minimum or there are just large bubbles in the hose.
- 4. Close the cylinder valves completely, and then operate the dispensing unit again to empty and depressurize the hoses. Use a 9/16" wrench and remove the hoses from the cylinders. Use caution in case there is some residual chemical and/or pressure in the hoses.
- 5. Invert the cylinder and point away from face. Slowly open the cylinder over the waste container to catch any residual spray.
- 6. Return the cylinder to an upright position. Shake the container; there should not be any sloshing of liquid. Make sure to leave valves OPEN-do not close.
- 7. DISPOSE OF EMPTY CYLINDERS ACCORDING TO APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. CHECK WITH YOUR LOCAL WASTE DISPOSAL SERVICE FOR GUIDANCE.

NOTE: After dispensing if one cylinder has chemical left in it; treat as hazardous material.

Section 14 - TRANSPORT INFORMATION

Note: Transportation information is for reference only. Customer is urged to consult 49 CFR 100-177 information manual for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

Land transport US DOT Information:

UN1956 Compressed Gas n.o.s. (Fluorinated hydrocarbon, nitrogen) 2.2 (Non-Flammable Gas Label)

Air transport IATA/CAO Information:

UN1956 Compressed Gas n.o.s. (Fluorinated hydrocarbon, nitrogen) 2.2 (Non-flammable Gas Label) Packing Instruction (Cargo & Passenger) 200

Page 8 of 11 Issue date: 2015-05-08 Revision 1.0 Print date: 2016-06-17



Material Name: Helix® Max Low-Rise Adhesive - Dual Tank - Part B SDS No: 10-2616B

Sea transport IMDG Information:

UN1956 Compressed Gas n.o.s. (Fluorinated hydrocarbon, nitrogen) 2.2 (Non-flammable Gas Label)

Section 15 - REGULATORY INFORMATION

Safety, health, and environmental regulations/legislations specific for the substance or mixture

U.S. Federal Regulations:

OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CFR 1910-1200

TSCA Status: All components of this product are listed on the Toxic Substance Control Act (TSCA) Inventory. This product is not subject to TSCA 12(b) Export Notification.

Superfund Amendments and Reauthorization Act (SARA)

SARA Section 311/312 Hazard Categories: Acute Health Hazard, Chronic Health Hazard, Sudden Release of Pressure Hazard

SARA 313 Information: No components of the product are subject to reporting levels established by Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

SARA 302/304 Extremely Hazardous Substance: No components of the product exceed the threshold (de minimis) reporting levels established by these sections of the Title III of SARA.

SARA 302/304 Emergency Planning & Notification: No components of the product exceed the threshold (de minimis) report levels established by these sections of the Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): None of the substances in this product are contained in levels that exceed the threshold (de minimis) reporting levels established by CERCLA

Clean Air Act (CAA) – This product does not have any components listed as a Hazardous Air Pollutant (HAP) designated in CAA Section 112 (b). This product does not contain any Class 1 or Class 2 Ozone depletors.

Clean Water Act (CWA) – This products does not have any components listed as a Hazardous Substance under the CWA. None of the chemicals in these products are listed as Priority Pollutants under the CWA. None of the chemicals listed in these products are listed as Toxic Pollutants under the CWA.

U.S. State Regulations:

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains substances known to the State of California to cause cancer or other reproductive harm.

Other U.S. State Inventories:

Diethylene glycol (CAS#111-46-6) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/air Pollutants lists: MN, PA

1,1,1,2- Tetrafluoroethane (CAS #811-97-2) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: ME, WI

Page 9 of 11 Issue date: 2015-05-08 Revision 1.0 Print date: 2016-06-17



Material Name: Helix® Max Low-Rise Adhesive - Dual Tank - Part B SDS No: 10-2616B

Section 16 - OTHER INFORMATION











HMIS Rating

Health: 2 Fire: 1 Physical Hazard: 1

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

NFPA Ratings

Health: 2 Fire: 1 Reactivity: 1

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

Summary of Changes

New SDS: November 28, 2015

Key / Legend

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

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition

Issue date: 2015-05-08 Revision 1.0 Print date: 2016-06-17 Page 10 of 11



Safety Data Sheet
Material Name: Helix® Max Low-Rise Adhesive - Dual Tank - Part B SDS No: 10-2616B

that the person receiving it shall make his own determination of the suitability of the material for this particular use

Page 11 of 11 Issue date: 2015-05-08 Revision 1.0 Print date: 2016-06-17