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# Safety Data Sheet

**Revision Number:** 007.2

**Issue date:** 03/20/2025

## 1. IDENTIFICATION

**Product name:** **LOCTITE STYCAST US 5529 PTA known as HYSOL US5529 PART A 5 GAL A3**

**IDH number:** 524805

**Product type/ Recommended use:** Part A for 2-K-Polyurethane adhesive and sealant

**Item number:** UA5529-B80A3

**Restriction of Use:** None identified

**Region:** United States

**Company address:**
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

**Contact information:**
Telephone: +1 (860) 571-5100
MEDICAL EMERGENCY Phone: Poison Control Center
1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC
1-800-424-9300 (toll free) or 1-703-527-3887
MEDICAL EMERGENCY Phone: Poison Control Center
1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC
1-800-424-9300 (toll free) or 1-703-527-3887
Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

DANGER:

H315 - CAUSES SKIN IRRITATION.
H317 - MAY CAUSE AN ALLERGIC SKIN REACTION.
H319 - CAUSES SERIOUS EYE IRRITATION.
H332 - HARMFUL IF INHALED.
H334 - MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.
H372 - CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

| HAZARD CLASS | HAZARD CATEGORY |
|---|---|
| ACUTE TOXICITY INHALATION | 4 |
| SKIN IRRITATION | 2 |
| EYE IRRITATION | 2A |
| RESPIRATORY SENSITIZATION | 1 |
| SKIN SENSITIZATION | 1 |
| SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE | 1 |

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:**
P260 - Do not breathe vapors, mist, or spray.
P264 - Wash affected area 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.
P280 - Wear protective gloves, eye protection, and face protection.
P284 - [In case of inadequate ventilation] wear respiratory protection.

**Response:**
P302+P352 - IF ON SKIN: Wash with plenty of water.
P304+P340+P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position

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|---|---|
| | comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.<br>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P333+P313 - If skin irritation or rash occurs: Get medical attention.<br>P337+P313 - If eye irritation persists: Get medical attention.<br>P342+P311 - If experiencing respiratory symptoms: Call a poison center or physician.<br>P362+P364 - Take off contaminated clothing and wash it before reuse. |
| **Storage:** | Not prescribed |
| **Disposal:** | P501 - Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations. |

**Other hazards** Not available.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**See Section 11 for additional toxicological information.**

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Hazardous Component(s) | CAS Number | Weight %* |
|---|---|---|
| Methylenebis(phenylisocyanate) | 101-68-8 | 30 - 60 |
| Polymeric diphenylmethane diisocyanate | 9016-87-9 | 30 - 60 |
| Methylene bisphenyl isocyanate | 26447-40-5 | 10 - 30 |
| o-(p-Isocyanatobenzyl)phenyl isocyanate | 5873-54-1 | 1 - 5 |

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

## 4. FIRST AID MEASURES

### First Aid Measures by likely routes of exposure

| | |
|---|---|
| **Inhalation:** | Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life threatening. |
| **Skin contact:** | Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention. Wash clothing before reuse. |
| **Eye contact:** | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| **Ingestion:** | Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention. |
| **Most important symptoms and effects (acute and delayed):** | The most important known symptoms and effects, both acute and delayed, are described in Section 11: Toxicological Information. |
| **Indication of any immediate medical attention / special treatment needed:** | Eyes:Stain for evidence of corneal injury.If cornea is burned, instill antibiotic steroid preparation frequently.Workplace vapors have produced reversible corneal epithelial edema impairing vision.Skin:This compound is a known skin sensitizer.Treat symptomatically as for contact dermatitis or thermal burns.Ingestion:Treat symptomatically.There is no specific antidote.Inducing vomiting is contraindicated because of the irritating nature of this compound.Respiratory:This compound is a known pulmonary sensitizer. |

## 5. FIRE FIGHTING MEASURES

| | |
|---|---|
| **Extinguishing media:** | Water spray (fog), foam, dry chemical or carbon dioxide. |
| **Improper extinguishing agents:** | Not available. |
| **Special firefighting procedures:** | Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. During a fire, MDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. |

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**Unusual fire or explosion hazards:** Sealed containers at elevated temperatures or contaminated with water may rupture explosively. In case of fire, keep containers cool with water spray.

**Hazardous combustion products:** Hydrogen cyanide. Oxides of carbon. Oxides of nitrogen. Isocyanates. Toxic and irritating vapors.

## 6. ACCIDENTAL RELEASE MEASURES

**Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.**

**Environmental precautions:** Do not allow product to enter sewer or waterways.

**Clean-up methods:** Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. If temporary control of isocyanate vapor is required, a blanket of protein foam (available at most fire departments) may be placed over spill. Large quantities may be pumped into closed, but not sealed containers for disposal. For minor spills, absorb isocyanates with sawdust or other absorbent, shovel into suitable unsealed containers, transport to well ventilated area (outside) and treat with neutralizing solution: mixture of 80% water and 20% non-ionic surfactant Tergitol TMN-10; or 90% water, 3-8% concentrated ammonia and 2% detergent. Add about ten parts of neutralizer per part of isocyanate, with mixing. Allow to stand uncovered for 48 hours to let carbon dioxide escape. Decontaminate floor with decontamination solution letting stand for at least 15 minutes.

## 7. HANDLING AND STORAGE

**Handling:** Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Exposure to vapors of heated MDI can be extremely dangerous. Protect from moisture. Keep away from heat, spark and flame.

**Storage:** For safe storage, store at or below 30 °C (86°F)
Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected. MDI reacts slowly with water to form carbon dioxide gas. This gas can cause sealed containers to expand and possibly rupture. Store in a cool, dry place under low relative humidity, away from excessive heat.

**For information on product shelf life, please review labels on container or check the Technical Data Sheet.**

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.**

| Hazardous Component(s) | ACGIH TLV | OSHA PEL | AIHA WEEL | OTHER |
|---|---|---|---|---|
| Methylenebis(phenylisocyanate) | 0.005 ppm TWA | 0.02 ppm (0.2 mg/m3) Ceiling | None | None |
| Methylene bisphenyl isocyanate | 0.005 ppm TWA | None | None | None |

**Engineering controls:** Local exhaust should be used to maintain levels below the TLV whenever MDI is processed, heated or spray applied. Standard reference sources regarding industrial ventilation (i.e., ACGIH Industrial Ventilation) should be consulted for guidance about adequate ventilation. Air monitoring: Monitoring of airborne isocyanates in the breathing zone of individuals should become part of the overall employee exposure characterization program. Isocyanate exposure levels must be monitored. Monitoring techniques have been developed by NIOSH and OSHA. Medical Surveillance: Medical supervision of all employees who handle or come in contact with isocyanates is recommended. Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrent skin eczema or sensitization should be excluded from working with isocyanates. Once a person is diagnosed as sensitized to an isocyanate, no further exposure can be permitted.

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| **Respiratory protection:** | Concentrations greater than the TLV can occur when MDI is sprayed, heated or used in a poorly ventilated area. In such cases, or whenever concentrations of MDI exceed the TLV, respiratory protection must be worn. A positive pressure, supplied-air respirator or a self-contained breathing apparatus is recommended. In situations where MDI is not sprayed, heated, or used in a poorly ventilated area, and a supplied-air or self-contained breathing apparatus is unavailable or its use impractical, at least an air-purifying cartridge and particulate pre-filters must be worn. However, due to the poor warning properties of MDI, proper fit and timely replacement of filter elements must be ensured. However, this should be permitted only for short periods of time (less than one hour) at relatively low concentrations (at or near the TLV). Observe OSHA regulations for respirator use (29 CFR 1910.134). |
| **Eye/face protection:** | Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available. |
| **Skin protection:** | Permeation resistant gloves (butyl rubber, nitrile rubber, polyvinyl alcohol). However, please note that polyvinyl alcohol degrades in water. Cover as much of the exposed skin area as possible with appropriate clothing. If skin creams are used, keep the area covered by the cream to a minimum. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Physical state:** | Liquid |
| **Color:** | Dark brown |
| **Odor:** | Musty |
| **Odor threshold:** | Not available. |
| **pH:** | Not available. |
| **Vapor pressure:** | < 0.0001 mm hg (25 °C (77°F)) |
| **Boiling point/range:** | > 200 °C (> 392°F)1,013 hPa |
| **Melting point/ range:** | Not available. |
| **Density/Relative density:** | 1.24 at 25 °C (77°F) |
| **Relative vapor density:** | Not available. |
| **Flash point:** | 225.6 °C (438.08 °F) Flash Point, Pensky-Martens |
| **Flammable/Explosive limits - lower:** | Not available. |
| **Flammable/Explosive limits - upper:** | Not available. |
| **Autoignition temperature:** | Not available. |
| **Flammability:** | Not applicable |
| **Evaporation rate:** | Not available. |
| **Solubility:** | Reacts slowly with water to liberate carbon dioxide gas. Water |
| **Partition coefficient n-octanol/water (logarithmic value):** | Not available. |
| **VOC content:** | 0 % (value for resin and hardener together) (estimated) |
| **Dynamic viscosity:** | Not available. |
| **Kinematic viscosity:** | Not available. |
| **Particle characteristics:** | Not available. |
| **Decomposition temperature:** | Not available. |

## 10. STABILITY AND REACTIVITY

| | |
|---|---|
| **Stability:** | Stable under normal conditions of storage and use. |
| **Hazardous reactions:** | Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols. |
| **Hazardous decomposition products:** | Thermal decomposition can lead to release of irritating gases and vapors. Hydrogen cyanide. MDI vapors and aerosols. Oxides of carbon. Oxides of nitrogen. |
| **Incompatible materials:** | Water. Amines. Strong bases. Alcohols. Copper alloys. |
| **Reactivity:** | Not available. |
| **Conditions to avoid:** | Keep away from heat, spark and flame. High temperatures. Contamination with water. Store away from incompatible materials. |

## 11. TOXICOLOGICAL INFORMATION

| | |
|---|---|
| **Likely routes of exposure:** | Skin, Inhalation, Eyes, Ingestion |

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**Potential Health Effects/Symptoms**

**Inhalation:** Harmful if inhaled. May cause respiratory tract irritation. May cause allergic respiratory reaction. Methylene bisphenyl isocyanate (MDI) vapors or mist at concentrations above the TLV can irritate the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Persons with preexisting, nonspecific bronchial hyper-reactivity can respond to concentrations below the TLV with similar symptoms as well as lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthma attack, could be immediate or delayed (up to several hours after exposure). Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Over exposure to isocyanates has also been reported to cause lung damage (including decrease in lung function) which may be permanent. This product contains modified rosin.

**Skin contact:** Causes skin irritation. May cause allergic skin reaction. Isocyanates react with skin protein and moisture and can cause irritation which may include the following symptoms: reddening, swelling, rash, scaling or blistering. Animal tests have indicated that respiratory sensitization can result from skin contact with MDI. These data reinforce the need to prevent direct skin contact with MDI.

**Eye contact:** Causes serious eye irritation. Liquid, aerosols or vapor are irritating and can cause tearing, reddening and swelling. May cause corneal injury. Damage however is usually reversible.

**Ingestion:** Irritation and corrosive action can occur in the mouth, stomach tissue and digestive tract if swallowed. Symptoms can include sore throat, abdominal pain, nausea, vomiting and diarrhea.

| Hazardous Component(s) | LD50s and LC50s |
|---|---|
| Methylenebis(phenylisocyanate) | None |
| Polymeric diphenylmethane diisocyanate | None |
| Methylene bisphenyl isocyanate | None |
| o-(p-Isocyanatobenzyl)phenyl isocyanate | Inhalation LC50 (Rat, 4 h) = 645 mg/m3<br>Inhalation LC50 (Rat, 4 h) = 0.49 mg/l<br>Inhalation LC50 (Rat, 4 h) = 310 mg/m3<br>Inhalation LC50 (Rat, 4 h) = 387 mg/m3 |

| Hazardous Component(s) | Immediate Health Effects | Delayed Health Effects | Chronic Health Effects |
|---|---|---|---|
| Methylenebis(phenylisocyanate) | Irritant | Allergen | Respiratory |
| Polymeric diphenylmethane diisocyanate | Irritant | Allergen | Kidney<br>Liver<br>Respiratory |
| Methylene bisphenyl isocyanate | Irritant | Allergen | Mutagen<br>Respiratory |
| o-(p-Isocyanatobenzyl)phenyl isocyanate | Irritant | Allergen | Respiratory |

| Hazardous Component(s) | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|---|---|---|---|
| Methylenebis(phenylisocyanate) | No | No | No |
| Polymeric diphenylmethane diisocyanate | No | No | No |
| Methylene bisphenyl isocyanate | No | No | No |
| o-(p-Isocyanatobenzyl)phenyl isocyanate | No | No | No |

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available.

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## 13. DISPOSAL CONSIDERATIONS

**Information provided is for unused product only.**

**Recommended method of disposal:** Dispose of according to Federal, State and local governmental regulations. Empty containers must be handled with care due to product residue.

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any packaging.

**U.S. Department of Transportation Ground (49 CFR)**

| | |
|---|---|
| **Proper shipping name:** | RQ, Environmentally hazardous substance, liquid, n.o.s. |
| **Hazard class or division:** | 9 |
| **Identification number:** | UN 3082 |
| **Packing group:** | III |
| **DOT Hazardous Substance(s):** | Methylene diphenyl diisocyanate |

**International Air Transportation (ICAO/IATA)**

| | |
|---|---|
| **Proper shipping name:** | RQ, Environmentally hazardous substance, liquid, n.o.s. |
| **Hazard class or division:** | 9 |
| **Identification number:** | UN 3082 |
| **Packing group:** | III |

**Water Transportation (IMO/IMDG)**

| | |
|---|---|
| **Proper shipping name:** | RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| **Hazard class or division:** | 9 |
| **Identification number:** | UN 3082 |
| **Packing group:** | III |

## 15. REGULATORY INFORMATION

**United States Regulatory Information**

| | |
|---|---|
| **TSCA 8 (b) Inventory Status:** | All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory. |
| **TSCA 12 (b) Export Notification:** | None above reporting de minimis |
| **CERCLA/SARA Section 302 EHS:** | None above reporting de minimis. |
| **CERCLA/SARA Section 311/312:** | Please refer to the GHS classification in Section 2 |
| **CERCLA/SARA Section 313:** | This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Methylenebis(phenylisocyanate) (CAS# 101-68-8). Polymeric diphenylmethane diisocyanate (CAS# 9016-87-9). |
| **CERCLA Reportable quantity:** | Methylenebis(phenylisocyanate) (CAS# 101-68-8) 5,000 lbs. (2,270 kg) |
| **California Proposition 65:** | No California Proposition 65 listed chemicals are known to be present. |

**Canada Regulatory Information**

| | |
|---|---|
| **CEPA DSL/NDSL Status:** | All components are listed on or are exempt from listing on the Canadian Domestic Substances List. |

## 16. OTHER INFORMATION

**This safety data sheet contains changes from the previous version in sections:** New Safety Data Sheet format.

**Prepared by:** Regulatory Affairs

**Issue date:** 03/20/2025

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