Revision Number: 005.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **LOCTITE STYCAST US 0138-1 PTA known as HYSOL US0138-1 PART A GAL**

IDH number: 630140

Product type/use: Polyurethane resin

Item number: UA0138-B50

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
Internet: www.henkelna.com

The Environmental Protection Agency prohibits processing and distribution of this chemical/product for any use other than: (1) In hydraulic fluids either for the aviation industry or to meet military specifications for safety and performance where no alternative chemical is available that meets U.S. Department of Defense specification requirements, (2) lubricants and greases, (3) new or replacement parts for motor and aerospace vehicles, (4) as an intermediate in the manufacture of cyanoacrylate glue, (5) in specialized engine air filters for locomotive and marine applications, and (6) in adhesives and sealants before January 6, 2025, after which use in adhesives and sealants is prohibited. In addition, all persons are prohibited from releasing PIP (3:1) to water during manufacturing, processing and distribution in commerce, and must follow all existing regulations and best practices to prevent the release of PIP (3:1) to water during the commercial use of PIP (3:1).

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER:

CAUSES SKIN IRRITATION.
MAY CAUSE AN ALLERGIC SKIN REACTION.
CAUSES SERIOUS EYE IRRITATION.
MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.
MAY CAUSE RESPIRATORY IRRITATION.
CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1

PICTOGRAM(S)

Precautionary Statements

Prevention: Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection. In case of inadequate ventilation wear respiratory protection.

Response:	IF ON SKIN: Wash with plenty of water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician 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 skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. If experiencing respiratory symptoms: Call a poison center or physician. Take off contaminated clothing.
Storage:	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal:	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

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	Percentage*
Phenol, isopropylated, phosphate (3:1)	68937-41-7	10 - 30
Aromatic Ester	Proprietary	10 - 30
Methylenebis(phenylisocyanate)	101-68-8	10 - 30
Diphenylmethane diisocyanate, isomers and homologs	9016-87-9	10 - 30
Methylene bisphenyl isocyanate	26447-40-5	5 - 10
Triphenyl phosphate	115-86-6	1 - 5
Substituted silane	Proprietary	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

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. 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 unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
Symptoms:	See Section 11.
Notes to physician:	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.
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. In case of fire, keep containers cool with water spray. Explosive rupture is possible.

Unusual fire or explosion hazards: Sealed containers at elevated temperatures or contaminated with water may rupture explosively.

Hazardous combustion products: Oxides of carbon. Oxides of nitrogen. Hydrogen cyanide. Isocyanates. Oxides of phosphorus.

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: Remove all sources of ignition. Ensure adequate ventilation. Isolate area. Keep unnecessary personnel away. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. 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. 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: Use only with adequate ventilation. Exposure to vapors of heated MDI can be extremely dangerous. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep away from heat, spark and flame. Refer to Section 8.

Storage: Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. 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. If container is exposed to high heat (204.4 °C (400 °F)), it can be pressurized and possibly rupture.

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
Phenol, isopropylated, phosphate (3:1)	None	None	None	None
Aromatic Ester	None	None	None	None
Methylenebis(phenylisocyanate)	0.005 ppm TWA	0.02 ppm (0.2 mg/m3) Ceiling	None	None
Diphenylmethane diisocyanate, isomers and homologs	None	None	None	None
Methylene bisphenyl isocyanate	None	None	None	None
Triphenyl phosphate	3 mg/m3 TWA	3 mg/m3 PEL	None	None
Substituted silane	None	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. 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.

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, this should be permitted only for short periods of time (less than one hour) at relatively low concentrations (at or near the TLV). However, due to the poor warning properties of MDI, proper fit and timely replacement of filter elements must be ensured. 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:	Amber
Odor:	Slight
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	2.0 mm hg Estimated
Boiling point/range:	Not available.
Melting point/ range:	Not available.
Specific gravity:	1.21
Vapor density:	3.8 Approximately
Flash point:	233.9 °C (453.02 °F) Closed cup
Flammable/Explosive limits - lower:	Not determined
Flammable/Explosive limits - upper:	Not determined
Autoignition temperature:	Not determined
Flammability:	Not applicable
Evaporation rate:	< 1
Solubility in water:	Negligible. Reacts slowly with water to liberate carbon dioxide gas.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	0 %; 0 g/l Estimated
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	Exothermic. Contact with moisture, other materials which can react with isocyanates, or temperatures above 204.4°C (400°F), may cause polymerization.
Hazardous decomposition products:	Thermal decomposition can lead to release of irritating gases and vapors. Oxides of carbon. Hydrogen cyanide. MDI vapors and aerosols. Organic compounds. Oxides of nitrogen. Isocyanate vapors Oxides of phosphorus.
Incompatible materials:	Water, amines, alkalis and alcohols. Will cause some corrosion of copper alloys and aluminum.
Reactivity:	Not available.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition. Extremes of temperature. Avoid contact with water. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:	Skin, Inhalation, Eyes, Ingestion. Aerosols or vapors can be formed during heating, foaming, or spraying.

Potential Health Effects/Symptoms

Inhalation: 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.

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.

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: May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Phenol, isopropylated, phosphate (3:1)	None	No Target Organs
Aromatic Ester	None	Irritant
Methylenebis(phenylisocyanate)	Inhalation LC50 (Rat, 4 h) = 0.38 mg/l	Irritant, Respiratory, Allergen
Diphenylmethane diisocyanate, isomers and homologs	None	Allergen, Irritant, Kidney, Liver, Respiratory
Methylene bisphenyl isocyanate	None	Allergen, Irritant, Mutagen, Respiratory
Triphenyl phosphate	Oral LD50 (Rat) = 3.8 g/kg Oral LD50 (Mouse) = 1.3 g/kg Oral LD50 (Rat) = 10.8 g/kg Dermal LD50 (Rabbit) = > 7.9 g/kg	Adrenals, Allergen, Gastrointestinal, Irritant, Kidney, Nervous System, Reproductive
Substituted silane	None	Allergen, Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Phenol, isopropylated, phosphate (3:1)	No	No	No
Aromatic Ester	No	No	No
Methylenebis(phenylisocyanate)	No	No	No
Diphenylmethane diisocyanate, isomers and homologs	No	No	No
Methylene bisphenyl isocyanate	No	No	No
Triphenyl phosphate	No	No	No
Substituted silane	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

14. TRANSPORT INFORMATION

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

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

Proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (Triphenyl phosphate, Triisopropylated phenyl phosphate)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
Marine pollutant:	Triphenyl phosphate, Triisopropylated phenyl phosphate

International Air Transportation (ICAO/IATA)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

Water Transportation (IMO/IMDG)

Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triphenyl phosphate, Triisopropylated phenyl phosphate)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
Marine pollutant:	Triphenyl phosphate, Triisopropylated phenyl phosphate

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 6 Risk Management Rules	The Environmental Protection Agency prohibits processing and distribution of this chemical/product for any use other than: (1) In hydraulic fluids either for the aviation industry or to meet military specifications for safety and performance where no alternative chemical is available that meets U.S. Department of Defense specification requirements, (2) lubricants and greases, (3) new or replacement parts for motor and aerospace vehicles, (4) as an intermediate in the manufacture of cyanoacrylate glue, (5) in specialized engine air filters for locomotive and marine applications, and (6) in adhesives and sealants before January 6, 2025, after which use in adhesives and sealants is prohibited. In addition, all persons are prohibited from releasing PIP (3:1) to water during manufacturing, processing and distribution in commerce, and must follow all existing regulations and best practices to prevent the release of PIP (3:1) to water during the commercial use of PIP (3:1).
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:	Immediate Health, Delayed Health
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). Diphenylmethane diisocyanate, isomers and homologs (CAS# 9016-87-9).
CERCLA Reportable quantity:	Methylenebis(phenylisocyanate) (CAS# 101-68-8) 5,000 lbs. (2,270 kg)
California Proposition 65:	This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status:	Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 1,15,16

Prepared by: Product Safety and Regulatory Affairs

Issue date: 03/04/2021

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