



Revision Number: 002.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: MACROPLAST UR-8341
Product type: Polyurethane adhesive

IDH number: 1252532

Region: United States

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

Contact information:
Customer Service: 1-888-480-6889
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**

Physical state:	Liquid	HEALTH:	*2
Color:	Yellow	FLAMMABILITY:	1
Odor:	Odorless	PHYSICAL HAZARD:	1
		Personal Protection:	See MSDS Section 8
WARNING:	HARMFUL IF INHALED. CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. MAY CAUSE LUNG DAMAGE. MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION.		

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation:	May cause respiratory tract irritation. This product may cause sensitization by inhalation and skin contact. Overexposure to isocyanates may cause burning sensation of respiratory tract, cough, shallow breathing, burning sensation, tightness in chest, reduced lung function. As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. Chronic overexposure to isocyanates has been reported to cause lung damage.
Skin contact:	Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation of susceptible persons. Isocyanates react with skin protein and moisture and can cause irritation which may include the following symptoms: reddening, swelling, rash, scaling or blistering. May cause sensitization by inhalation and skin contact.
Eye contact:	Liquid or vapor can cause moderate to severe irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. Conjunctivitis.
Ingestion:	Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Not expected under normal conditions of use.

Existing conditions aggravated by exposure: Pre-existing skin or lung allergies may increase the chance of developing exaggerated allergic symptoms from exposure to this product.

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Methylenebis(phenylisocyanate)	101-68-8	10 - 30
Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	10 - 30
Methylene bisphenyl isocyanate	26447-40-5	0.1 - 1

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Immediately remove soiled or soaked clothing. Get medical attention.
Eye contact:	Check for and remove any contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion:	If material is ingested, immediately contact a physician or poison control center. Keep individual calm. DO NOT induce vomiting unless directed to do so by medical personnel.
Notes to physician:	Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrent skin eczema or sensitization should be excluded from working with isocyanates.

5. FIRE FIGHTING MEASURES

Flash point:	> 110 °C (> 230°F)
Autoignition temperature:	Not available.
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Extinguishing media:	Use extinguishing measures appropriate to local circumstances and the surrounding environment. 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. Keep unnecessary personnel away.
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:	Irritating and toxic gases or fumes may be released during a fire. Isocyanate vapors. Oxides of carbon. Oxides of nitrogen. Hydrogen cyanide.

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 empty into drains / surface water / ground water. Follow all local, state, federal and provincial regulations for disposal.
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Clean-up methods:

Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed. 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. Large quantities may be pumped into closed, but not sealed containers for disposal. If temporary control of isocyanate vapor is required, a blanket of protein foam (available at most fire departments) may be placed over spill.

7. HANDLING AND STORAGE

Handling:

Use only in well-ventilated areas. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Wear suitable protective clothing, safety glasses and gloves.

Storage:

Do not let moisture contaminate this material. Product reacts with water to release carbon dioxide, which could build up pressure in closed containers and lead to bursting. Do not reseal if moisture contamination is suspected. Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Protect from direct sunlight.

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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Methylenebis(phenylisocyanate)	0.005 ppm TWA	0.02 ppm (0.2 mg/m ³) Ceiling	None	None
Isocyanic acid, polymethylenepolyphenylene ester	0.005 ppm TWA	0.02 ppm (0.2 mg/m ³) Ceiling	None	None
Methylene bisphenyl isocyanate	None	None	None	None

Engineering controls:

Work should be done in an adequately ventilated area (i.e., ventilation sufficient to maintain concentrations below one half of the PEL and other relevant standards). Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination. Monitoring of airborne isocyanates in the breathing zone of individuals should become part of the overall employee exposure characterization program. Once a person is diagnosed as sensitized to an isocyanate, no further exposure can be permitted.

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s). A positive pressure, supplied-air respirator or a self-contained breathing apparatus is recommended when: airborne concentrations of isocyanate are known to exceed 0.005 ppm; operations are performed in a confined space or area with limited ventilation; material is heated or sprayed. Do not inhale vapors and fumes. 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. Do not wear contact lenses.

Skin protection:

Use impermeable gloves and protective clothing as necessary to prevent skin contact. The workplace should be equipped with an emergency shower and eye-rinsing facility.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Yellow
Odor:	Odorless
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	Not available.
Boiling point/range:	Not available.
Melting point/ range:	Not available.
Specific gravity:	1.10
Vapor density:	Not available.
Flash point:	> 110 °C (> 230°F)
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Autoignition temperature:	Not available.
Evaporation rate:	Not available.
Solubility in water:	Not soluble. Reacts slowly with water to liberate carbon dioxide gas.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	0 %

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions.
Hazardous reactions:	Polymerization can occur.
Hazardous decomposition products:	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Hydrogen cyanide. Isocyanate vapors
Incompatible materials:	Reaction with water, formation of CO ₂ Moisture. Amines. Alcohols. Strong acids. Strong alkalis.
Conditions to avoid:	Avoid moisture. Container can be pressurised by carbon dioxide due to reaction with humid air and/or water. Prolonged heating at temperatures above 150 °C. Protect from direct sunlight.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Methylenebis(phenylisocyanate)	No	No	No
Isocyanic acid, polymethylenepolyphenylene ester	No	No	No
Methylene bisphenyl isocyanate	No	No	No

Hazardous components	Health Effects/Target Organs
Methylenebis(phenylisocyanate)	Irritant, Respiratory, Allergen
Isocyanic acid, polymethylenepolyphenylene ester	Allergen, Irritant, Kidney, Liver, Respiratory
Methylene bisphenyl isocyanate	Allergen, Irritant, Mutagen, Respiratory

12. ECOLOGICAL INFORMATION

Ecological information:	Do not empty into drains, soil or bodies of water.
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13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal:	Legal disposition of wastes is the responsibility of the owner/generator of the waste. Applicable federal, state and/or local regulations must be followed during treatment, storage, or disposal of waste containing this product.
Hazardous waste number:	To the best of our knowledge, this product is not listed nor does it meet the criteria of a hazardous waste if discarded in its purchased form. However, under RCRA, it is the responsibility of the user to determine at the time of disposal whether a product meets any of the RCRA hazardous waste criteria. This is because product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics under the new Toxicity Characteristics Leaching Procedure (TCLP) 40 Code of Federal Regulations 261.20-24.

14. TRANSPORT INFORMATION

The shipping classification in this section are for bulk packaging only. Shipping classification may be different for non-bulk packaging as exceptions may apply. Refer to shipping documents for package specific transportation classification.

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

Proper shipping name:	Environmentally hazardous substances, liquid, n.o.s.
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
DOT Reportable quantity:	Methylene diphenyl diisocyanate

International Air Transportation (ICAO/IATA)

Proper shipping name:	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:	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 or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12(b) Export Notification:	None above reporting de minimus
CERCLA/SARA Section 302 EHS:	None above reporting de minimis
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health, Reactive
CERCLA/SARA 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). Isocyanic acid, polymethylenepolyphenylene ester (CAS# 9016-87-9).
CERCLA Reportable quantity:	Methylenebis(phenylisocyanate) (CAS# 101-68-8) 5,000 lbs. (2,270 kg) Isocyanic acid, polymethylenepolyphenylene ester (CAS# 9016-87-9) 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/NDL Status:	All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
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WHMIS hazard class:

D.2.A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: This Material Safety Data Sheet contains changes from the previous version in Section(s): 1, 2, 3, and related sections.

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