Revision Number: 002.1

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Loctite(R) 3631 Proform(TM) Hot Melt Adhesive Moisture Curing Urethane
Product type: Hotmelt adhesive

IDH number: 237305
Item number: 31279
Region: United States

Company address:
Henkel Corporation
1001 Trout Brook Crossing
Rocky Hill, Connecticut 06067

Contact information:
Telephone: 860.571.5100
Emergency telephone: 860.571.5100
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS:

Physical state:	Solid	**HEALTH:**	*2
Color:	Off white	**FLAMMABILITY:**	1
Odor:	little intrinsic odour	**PHYSICAL HAZARD:**	0
		Personal Protection:	See MSDS Section 8

WARNING: MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION.
MOLTEN ADHESIVE MAY CAUSE SEVERE BURNS.
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Relevant routes of exposure: Eyes, Skin, Inhalation

Potential Health Effects

Inhalation: Continuous breathing of vapors above molten adhesive may irritate mucous membranes. This product may cause sensitization by inhalation and skin contact. Dusts from solid adhesive may cause irritation.

Skin contact: Molten adhesive may cause severe burns. Repeated or prolonged skin contact may result in allergic sensitization.

Eye contact: Can cause mechanical irritation if dusts are generated. Molten adhesive in eyes will cause severe and permanant damage.

Ingestion: Ingestion causes irritation and effects similar to inhalation.

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 material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Methylenebis(phenylisocyanate)	101-68-8	10 - 30
Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-	25322-69-4	10 - 30

4. FIRST AID MEASURES

Inhalation: Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin contact:	Molten adhesive may cause severe burns. Cool melted product on skin with plenty of water. Do not remove solidified product. Cover affected areas with clean sheeting or gauze and seek immediate medical attention. No attempt should be made to remove material from skin or to remove contaminated clothing as damaged skin can be easily torn.
Eye contact:	If eye contact occurs with molten material immediately cool with water. Do not remove adhesive. Seek medical attention.
Ingestion:	If material is ingested, immediately contact a physician or poison control center.

5. FIRE FIGHTING MEASURES

Flash point:	> 232 °C (> 449.6 °F)
Autoignition temperature:	Not determined
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide. Use extinguishing measures appropriate to local circumstances and the surrounding environment.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Unusual fire or explosion hazards:	None
Hazardous combustion products:	Hydrogen cyanide. Acrid smoke and fumes. Thermal decomposition can lead to release of irritating gases and vapors. Isocyanate vapors. Oxides of carbon.

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 material to contaminate ground water system.
Clean-up methods:	Store in a partly filled, closed container until disposal. Ensure adequate ventilation. If product is molten at time of spill, allow it to polymerize before scraping up. If product is solid at time of spill, sweep up. Avoid creating static electricity while sweeping as static discharge may occur. Store picked up product for either reuse or disposal.

7. HANDLING AND STORAGE

Handling:	Do not place wet or damp solid into melt tank. Do not wear contact lenses. Always be careful around molten material. Avoid skin contact with molten resins. Follow suggested application temperature.
Storage:	For safe storage, store at or below 38 °C (100.4 °F)

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/m3) Ceiling	None	None
Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-	None	None	10 mg/m3 TWA Aerosol.	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. Heat only in areas with appropriate exhaust ventilation.

Respiratory protection: In case of insufficient ventilation wear suitable respiratory equipment. Observe OSHA regulations for respiratory use (29 CFR 1910.134). Respirator with combination filter for vapor/particulate.

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: Insulated gloves and long sleeved clothing are strongly recommended when working with molten adhesive.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid
Color: Off white
Odor: little intrinsic odour
Odor threshold: Not available
pH: Not applicable
Vapor pressure: 0.00001 mm hg
Boiling point/range: Not available
Melting point/ range: 120 °C (248°F)
Specific gravity: 1.2
Vapor density: Not determined
Flash point: > 232 °C (> 449.6 °F)
Flammable/Explosive limits - lower: Not applicable
Flammable/Explosive limits - upper: Not applicable
Autoignition temperature: Not determined
Evaporation rate: Not applicable
Solubility in water: Not soluble. Reacts slowly with water to liberate carbon dioxide gas.
Partition coefficient (n-octanol/water): Not determined
VOC content: 0 g/l

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous reactions: Will not occur.

Hazardous decomposition products: None under normal use.

Incompatible materials: Humid air and/or water will produce carbon dioxide which will pressurize the container.

Conditions to avoid: Container can be pressurised by carbon dioxide due to reaction with humid air and/or water.

11. TOXICOLOGICAL INFORMATION

Acute oral product toxicity: LD50 (rat) > 9,000 mg/kg

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Methylenebis(phenylisocyanate)	No	No	No
Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-	No	No	No

Hazardous components	Health Effects/Target Organs
Methylenebis(phenylisocyanate)	Irritant, Respiratory, Allergen
Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-	Allergen, Cardiac, Central nervous system, Irritant

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. This product is not a RCRA hazardous waste when discarded. Processing, use, or contamination of this product may change the hazard classification and waste management options.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

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

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

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: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None
Exceptions: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: One or more components of this product are not listed on the U.S. Toxic Substances Control Act (TSCA) inventory. As such, this product may only be used for research and development purposes as described in 40 CFR 720.36. All other components of this product are listed or are exempt from listing.
TSCA 12(b) Export Notification: None above reporting de minimus

CERCLA/SARA Section 302 EHS: None above reporting de minimus
CERCLA/SARA Section 311/312: Delayed Health, Immediate Health
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).
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.

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: New Material Safety Data Sheet format.

Prepared by: Regulatory Affairs

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