



Revision Number: 002.2

Issue date: 04/13/2010

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: TECHNOMELT PUR 513C KNOWN AS PURMELT QR 513C
Product type: Polyurethane adhesive
Company address: Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 542817
Region: United States
Contact information:
Telephone: 860.571.5100
Poison Control Center: 1-877-671-4608. For transportation emergencies, CHEMTREC: 1-800-424-9300.
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

| | | | |
|------------------------|-----------|-----------------------------|--------------------|
| Physical state: | Solid | HMIS: | |
| Color: | Off white | HEALTH: | *2 |
| Odor: | None | FLAMMABILITY: | 1 |
| | | PHYSICAL HAZARD: | 0 |
| | | Personal Protection: | See MSDS Section 8 |

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

Relevant routes of exposure: Eyes, Skin, Inhalation

Potential Health Effects

Inhalation: 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). Repeated exposure may lead to respiratory sensitization reactions, producing an asthma-like condition.

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

Eye contact: Can cause mechanical irritation if dusts are generated. Liquid or vapor can cause moderate to severe irritation. Molten adhesive in eyes will cause severe and permanent 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 | 1 - 5 |

4. FIRST AID MEASURES

| | |
|----------------------|---|
| Inhalation: | Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. |
| 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: | > 180 °C (> 356°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: | Thermal decomposition can lead to release of irritating gases and vapors. Oxides of carbon. Hydrogen cyanide. Isocyanate 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 material to contaminate ground water system. |
| Clean-up methods: | Ensure adequate ventilation. Wear protective clothing, gloves and safety glasses. Spilled material will solidify. Scrape up spilled material and place in a closed container for disposal. |

7. HANDLING AND STORAGE

| | |
|------------------|---|
| Handling: | Avoid skin contact with molten resins. Follow suggested application temperature. Do not place wet or damp solid into melt tank. |
| 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 ¹ | 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. Heat only in areas with appropriate exhaust ventilation. Do not make the container seal gastight.

Respiratory protection:

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. Concentrations greater than the TLV can occur when MDI is sprayed, heated or used in a poorly ventilated area. Observe OSHA regulations for respiratory 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.

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: | None |
| Odor threshold: | Not available |
| pH: | Not applicable |
| Vapor pressure: | < 0.0001 mm hg (20 °C (68°F)) For MDI |
| Boiling point/range: | Not available |
| Melting point/ range: | 65 °C (149°F) (Softening Point) |
| Specific gravity: | 1.2 |
| Vapor density: | Not determined |
| Flash point: | > 180 °C (> 356°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 %; 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) > 5,000 mg/kg

| Hazardous components | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|--------------------------------|----------------|-----------------|---|
| Methylenebis(phenylisocyanate) | No | No | No |

| Hazardous components | Health Effects/Target Organs |
|--------------------------------|---------------------------------|
| Methylenebis(phenylisocyanate) | Irritant, Respiratory, Allergen |

12. ECOLOGICAL INFORMATION

Ecological information: Not available

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of 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. Dispose of according to Federal, State and local governmental regulations.

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: 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 minimus

CERCLA/SARA Section 311/312: Immediate Health, Delayed 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).

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: Ed Waldynski, Regulatory Affairs Specialist

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation does not assume responsibility for any results obtained by persons over whose methods Henkel Corporation has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any of Henkel Corporation's products. In light of the foregoing, Henkel Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation further disclaims any liability for consequential or incidental damages of any kind, including lost profits.