# Material Safety Data Sheet

Henkel Technologies

**Revision Date:** 09/21/2007 **Issue date:** 09/21/2007

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product name:** 455 Prism® Low Odor/Low Bloom Gel Instant Adhesive
**Item No. :** 22309 / IDH No. 231525
**Product type:** Cyanoacrylate
**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.loctite.com

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous components | % | ACGIH TLV | OSHA PEL | OTHER |
|---|---|---|---|---|
| Beta-Methoxyethyl cyanoacrylate<br>27816-23-5 | 60-100 | None | None | 0.2 ppm TWA |
| Filler<br>Proprietary | 1-5 | 10mg/m³ Inhalable fraction, 3mg/m³ Respirable fraction, TWA | 5mg/m³ Respirable dust, 15mg/m³ Total dust | None |

## 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**HMIS:**

**Physical state:** Gel
**Color:** Light yellow Cloudy
**Odor:** Negligible

**HEALTH:** 2
**FLAMMABILITY:** 2
**PHYSICAL HAZARD:** 1
**Personal Protection:** See Section 8

**WARNING:** BONDS SKIN IN SECONDS.
MAY CAUSE EYE AND RESPIRATORY IRRITATION.
COMBUSTIBLE LIQUID AND VAPOR.

**Relevant routes of exposure:** Skin, Inhalation, Eyes

**Potential Health Effects**

**Inhalation:** Exposure to vapors above the established exposure limit results in respiratory irritation which may lead to difficulty in breathing and tightness in the chest.

**Skin contact:** Bonds skin in seconds. May cause skin irritation. Cyanoacrylates have been reported to cause allergic reaction but due to rapid polymerization at the skin surface, an allergic response is rare. Cyanoacrylates generate heat on solidification. In rare circumstances a large drop will burn the skin. Cured adhesive does not present a health hazard even if bonded to the skin.

**Eye contact:** Irritating to eyes. Causes excessive tearing. Eyelids may bond.

**Ingestion:** Not expected to be harmful by ingestion. Rapidly polymerizes (solidifies) and bonds in mouth. It is almost impossible to swallow.

**Existing conditions aggravated by exposure:** Eye, skin, and respiratory disorders.

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

## 4. FIRST AID MEASURES

**Inhalation:** Remove to fresh air. If discomfort persists seek medical attention.

**Skin contact:** Do not pull bonded skin apart. Soak in warm soapy water. Gently peel apart using a blunt instrument. If skin is burned due to the rapid generation of heat by a large drop, seek medical attention. If lips are bonded, apply warm water to the lips and encourage wetting and pressure from saliva in mouth. Peel or roll lips apart. Do not pull lips apart with direct opposing force.

**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. Get medical attention. If eyelids are bonded closed, release eyelashes with warm water by covering with a wet pad. Do not force eye open. Cyanoacrylate will bond to eye protein and will cause a lachrymatory effect which will help to debond the adhesive. Keep eye covered until debonding is complete, usually within 1-3 days. Medical attention should be sought in case solid particles of polymerized cyanoacrylate trapped behind the eyelid caused abrasive damage.

**Ingestion:** Ensure breathing passages are not obstructed. The product will polymerize rapidly and bond to the mouth making it almost impossible to swallow. Saliva will separate any solidified product in several hours. Prevent the patient from swallowing any separated mass.

**Notes to physician:** Surgery is not necessary to separate accidentally bonded tissues. Experience has shown that bonded tissues are best treated by passive, non-surgical first aid. If rapid curing has caused thermal burns they should be treated symptomatically after adhesive is removed.

## 5. FIRE-FIGHTING MEASURES

**Flash point:** 80ºC (176ºF) to 93.4ºC (200ºF) Tagliabue closed cup

**Autoignition temperature:** Not determined

**Flammable/Explosive limits-lower %:** Not determined

**Flammable/Explosive limits-upper %:** Not determined

**Extinguishing media:** Dry powder. Foam. Carbon dioxide.

**Special fire fighting procedures:** Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

**Unusual fire or explosion hazards:** None

**Hazardous combustion products:** Trace amounts of toxic and/or irritating fumes may be released and the use of breathing apparatus is recommended.

## 6. ACCIDENTAL RELEASE MEASURES

**Environmental precautions:** Ventilate area. Prevent product from entering the drains.

**Clean-up methods:** Do not use cloths for mopping up. Flood with water to complete polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste.

## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes, skin and clothing. Avoid breathing vapor and mist. Wash thoroughly after handling. Avoid contact with fabric or paper goods. Contact with these materials may cause rapid polymerization which can generate smoke and strong irritating vapors, and cause thermal burns.

**Storage:** Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

**Incompatible products:** No special restrictions on storage with other products.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:** Use positive down-draft exhaust ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

**Respiratory protection:** Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

**Skin protection:** Use nitrile gloves and aprons as necessary to prevent contact. Do not use PVC, nylon or cotton.

**Eye/face protection:** Chemical splash goggles or safety glasses with side shields.

**See Section 2 for exposure limits.**

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Gel
**Color:** Light yellow Cloudy
**Odor:** Negligible
**Vapor pressure:** Less than 0.2 mm Hg
**pH:** Not applicable
**Boiling point/range:** Greater than 149ºC (300ºF)
**Melting point/range:** Not determined
**Specific gravity:** 1.1
**Vapor density:** Approximately 3
**Evaporation rate:** Not available
**Solubility in water:** Polymerizes in presence of water
**Partition coefficient (n-octanol/water):** Not applicable
**VOC content:** Less than 2%; 20 g/L (California SCAQMD Method 316B) (estimated)

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions

**Hazardous polymerization:** Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

**Hazardous decomposition products:** None

**Incompatability:** Water, amines, alkalis and alcohols.

**Conditions to avoid:** Spontaneous polymerization

## 11. TOXICOLOGICAL INFORMATION

**Product toxicity data:** Acute oral LD50 >5000mg/kg (rat)(estimated). Acute dermal LD50 >2000mg/kg (rabbit)(estimated).

**Carcinogen Status**

| Hazardous components | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen |
|---|---|---|---|
| Beta-Methoxyethyl cyanoacrylate 27816-23-5 | No | No | No |
| Filler Proprietary | No | No | No |

**Literature Referenced Target Organ & Other Health Effects**

| Hazardous components | Health Effects/Target Organs |
|---|---|
| Beta-Methoxyethyl cyanoacrylate 27816-23-5 | Allergen, Irritant |
| Filler Proprietary | Irritant |

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not known

## 13. DISPOSAL CONSIDERATIONS

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

**Recommended method of disposal:** Dispose of in accordance with Federal, State and local regulations.

**EPA hazardous waste number:** Not a RCRA hazardous waste.

## 14. TRANSPORT INFORMATION

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

| | |
|---|---|
| **Proper shipping name:** | Combustible liquids, n.o.s. (Cyanoacrylate ester) |
| **Hazard class or division:** | 3 |
| **Identification number:** | NA 1993 |
| **Packing group:** | None |
| ***Exceptions:*** | (Not more than 450 Liters) Unrestricted |
| **Marine pollutant:** | None |

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

| | |
|---|---|
| **Proper shipping name:** | Aviation regulated liquids, n.o.s (Cyanoacrylate ester) |
| **Hazard class or division:** | 9 |
| **Identification number:** | UN 3334 |
| **Packing group:** | III |
| ***Exceptions:*** | (Not more than 500ml) Unrestricted |

**WaterTransportation (IMO/IMDG):**

| | |
|---|---|
| **Proper shipping name:** | Unrestricted |
| **Hazard class or division:** | None |
| **Identification number:** | None |
| **Packing group:** | None |
| **Marine pollutant:** | 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.

**CERCLA/SARA Section 302 EHS:** None.
**CERCLA/SARA Section 311/312:** Immediate Health Hazard, Delayed Health Hazard, Fire, 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). Beta-methoxyethyl cyanoacrylate (CAS# 27816-23-5).

**California Proposition 65:** No California Proposition 65 listed chemicals are known to be present.

**Canada Regulatory Information**

**CEPA DSL/NDSL Status:** Contains one or more components listed on the Non-Domestic Substances list. All components are listed on or are exempt from listing on the Domestic Substances List. Please contact Product Safety and Regulatory Affairs for more information.
**WHMIS hazard class:** B.3, D.2.B

## 16. OTHER INFORMATION

**This material safety data sheet contains changes from the previous version in sections:** 3,9

**Prepared by:** C.J. Michaels, Manager, Regulatory Affairs

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