



Revision Number: 008.0

Issue date: 01/20/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE 404 INSTANT ADHESIVE known as LOCTITE® 404™ INSTANT ADHESIVE	IDH number:	135465
Product use:	Adhesive	Item number:	46551
Company address:	Henkel Corporation 2515 Meadowpine Boulevard Mississauga, Ontario L5N 6C3	Region:	Canada
		Contact information:	Telephone: 905.814.6511 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	WHMIS hazard class:	B.3, D.2.A, D.2.B
Color:	Clear, Colorless		
Odor:	Sharp, Irritating		

WARNING: BONDS SKIN IN SECONDS.
MAY CAUSE EYE AND RESPIRATORY TRACT IRRITATION.

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.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Ethyl 2-cyanoacrylate	7085-85-0	60 - 100
Hydroquinone	123-31-9	0.1 - 1

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get 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:	80 - 93 °C (176°F - 199.4 °F) Tagliabue closed cup
Autoignition temperature:	485 °C (905°F)
Flammable/Explosive limits - lower:	Not determined
Flammable/Explosive limits - upper:	Not determined
Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear a self-contained breathing apparatus with a full face piece operated in pressure-demand or other positive pressure mode.
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.
Sensitivity to Mechanical Impact:	Not available.
Sensitivity to static discharge:	Not available.

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:	Ventilate area. Do not allow product to enter sewer or waterways.
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. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

- Handling:** Prevent contact with eyes, skin and clothing. Do not breathe 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.

For information on product shelf life contact Henkel Canada Customer Service at 800-263-5043.

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
Ethyl 2-cyanoacrylate	0.2 ppm TWA	None	None	None
Hydroquinone	1 mg/m ³ TWA (Dermal sensitization)	2 mg/m ³ PEL	None	None

- Engineering controls:** Use positive down-draft exhaust ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.
- Respiratory protection:** Use a NIOSH approved supplied air respirator with an organic cartridge if the potential to exceed established exposure limits exists.
- 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:** Use nitrile gloves and aprons as necessary to prevent contact. Do not use PVC, nylon or cotton.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state:** Liquid
- Color:** Clear, Colorless
- Odor:** Sharp, Irritating
- Odor threshold:** 1 - 2 ppm
- pH:** Not applicable
- Vapor pressure:** < 0.2 mm hg
- Boiling point/range:** > 149 °C (> 300.2 °F)
- Melting point/ range:** Not determined
- Specific gravity:** 1.09 at 23.9 °C (75.02 °F)
- Vapor density:** 3 Approximately
- Flash point:** 80 - 93 °C (176°F - 199.4 °F) Tagliabue closed cup
- Flammable/Explosive limits - lower:** Not determined
- Flammable/Explosive limits - upper:** Not determined
- Autoignition temperature:** 485 °C (905°F)
- Evaporation rate:** Not available.
- Solubility in water:** Polymerises in presence of water.
- Partition coefficient (n-octanol/water):** Not determined
- VOC content:** < 2 %; < 20 g/l (California SCAQMD Method 316B) (Estimated)

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions.
Hazardous reactions:	Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.
Hazardous decomposition products:	None
Incompatible materials:	Water, amines, alkalis and alcohols.
Conditions to avoid:	Spontaneous polymerization.

11. TOXICOLOGICAL INFORMATION

Acute oral product toxicity:	LD50 (rat) > 5,000 mg/kg (Estimated)
Acute dermal product toxicity:	LD50 (rabbit) > 2,000 mg/kg (Estimated)
Toxicologically synergistic products:	Not available.

Refer to the following for Irritancy of Product, Sensitization to Product, Carcinogenicity, Reproductive Toxicity, Teratogenicity, and Mutagenicity.

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)	ACGIH Carcinogen
Ethyl 2-cyanoacrylate	No	No	No	No
Hydroquinone	No	No	No	Group A3

Hazardous components	LD50s and LC50s	Health Effects/Target Organs
Ethyl 2-cyanoacrylate	None	Irritant, Allergen, Respiratory
Hydroquinone	Oral LD50 (RAT) = 320 mg/kg Oral LD50 (RABBIT) = 540 mg/kg Dermal LD50 (RAT) = > 900 mg/kg	Blood, Bone Marrow, Central nervous system, Developmental, Eyes, Immune system, Irritant, Liver, Mutagen, Skin, Thyroid

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

Canada Transportation of Dangerous Goods - Ground

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

International Air Transportation (ICAO/IATA)

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

Water Transportation (IMO/IMDG)

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

15. REGULATORY INFORMATION

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

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.

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: Reviewed MSDS. Reissued with new date.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR), and the MSDS contains all the information required by the CPR.

Prepared by: Catherine Bimler, Regulatory Affairs Specialist

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Revision Number: 004.0

Issue date: 03/08/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE MR 6222 known as Water Proofing Solution	IDH number:	135538
Product use:	Coating	Item number:	74126
Company address:	Henkel Canada Corporation 2515 Meadowpine Boulevard Mississauga, Ontario L5N 6C3	Region:	Canada
		Contact information:	Telephone: 905.814.6511 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	WHMIS hazard class:	B.2, D.2.A, D.2.B
Color:	Black		
Odor:	Sweet		

WARNING: FLAMMABLE LIQUID AND VAPOR.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.
HARMFUL IF SWALLOWED OR INHALED.
CAUSES EYE AND SKIN IRRITATION.

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

Potential Health Effects

Inhalation:	May cause central nervous system effects with nausea, dizziness and headache.
Skin contact:	May be harmful if absorbed through skin. Moderate skin irritation.
Eye contact:	Contact with eyes will cause irritation.
Ingestion:	Swallowing small amounts during normal handling is not likely to cause harmful effects; swallowing large amounts may be harmful. Aspirated material can enter the lungs and result in pneumonitis. May cause an aspiration hazard if swallowed. Central nervous system depression, including dizziness, drowsiness, fatigue, nausea, headache, unconsciousness.

Existing conditions aggravated by exposure: Pre-existing skin, respiratory, central nervous system, liver and kidney conditions may be susceptible. Eye, skin, and respiratory disorders.

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Toluene	108-88-3	30 - 60
Methyl ethyl ketone	78-93-3	10 - 30
Polychloroprene synthetic rubber	Unknown	5 - 10
Carbon black	1333-86-4	5 - 10
Silicic acid (H6Si2O7), aluminum salt (1:2)	22708-90-3	5 - 10
Xylenes	1330-20-7	1 - 5

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If symptoms develop and persist, get medical attention.
Skin contact:	Wash with soap and water. If symptoms develop and persist, get medical attention.
Eye contact:	In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.
Ingestion:	Get immediate medical attention. If vomiting occurs, prevent aspiration by keeping the patient's head below the knees. Do not induce vomiting.
Notes to physician:	Aspiration may cause pulmonary edema or aspiration pneumonia.

5. FIRE FIGHTING MEASURES

Flash point:	-1 °C (30.2 °F) Tagliabue closed cup
Autoignition temperature:	Not available.
Flammable/Explosive limits - lower:	1.4 % (Toluene)
Flammable/Explosive limits - upper:	7 % (Toluene)
Extinguishing media:	Foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Water should be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
Unusual fire or explosion hazards:	None Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back.
Hazardous combustion products:	Oxides of carbon. Oxides of aluminum.
Sensitivity to Mechanical Impact:	Not available.
Sensitivity to static discharge:	Not available.

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:	Contain spill. Do not allow product to enter sewer or waterways.
Clean-up methods:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up spilled material and place in a closed container for disposal.

7. HANDLING AND STORAGE

Handling:	Do not breathe gas/fumes/vapor/spray. Do not get on skin or clothing. Do not taste or swallow. Wash thoroughly after handling. Do not get in eyes.
Storage:	For safe storage, store at or below 37 °C (98.6 °F) Store away from heat, sparks, flames, or other sources of ignition.

For information on product shelf life contact Henkel Canada Customer Service at 800-263-5043.

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
Toluene	20 ppm TWA	200 ppm TWA 300 ppm Ceiling 500 ppm MAX. CONC 10 minutes	None	None
Methyl ethyl ketone	200 ppm TWA 300 ppm STEL	200 ppm (590 mg/m3) TWA	None	None
Polychloroprene synthetic rubber	None	None	None	None
Carbon black	3 mg/m3 TWA Inhalable fraction.	3.5 mg/m3 TWA	None	None
Silicic acid (H6Si2O7), aluminum salt (1:2)	1 mg/m3 TWA Respirable fraction.	None	None	None
Xylenes	100 ppm TWA 150 ppm STEL	100 ppm (435 mg/m3) TWA	None	None

Engineering controls:

Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s). Observe OSHA regulations for respirator use (29 CFR 1910.134).

Eye/face protection:

Goggles. Safety glasses with side-shields.

Skin protection:

Use impermeable gloves and protective clothing as necessary to prevent skin contact. Use of Butyl or Nitrile Rubber gloves is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Black
Odor:	Sweet
Odor threshold:	Not available.
pH:	Not available.
Vapor pressure:	Not available.
Boiling point/range:	Not available.
Melting point/ range:	Not available.
Specific gravity:	0.85 at 26.7 °C (80.06 °F)
Vapor density:	Not available.
Flash point:	-1 °C (30.2 °F) Tagliabue closed cup
Flammable/Explosive limits - lower:	1.4 % (Toluene)
Flammable/Explosive limits - upper:	7 % (Toluene)
Autoignition temperature:	Not available.
Evaporation rate:	7.7 (Ether = 1)
Evaporation rate:	> 7.7 (Ether = 1)
Solubility in water:	Slight
Partition coefficient (n-octanol/water):	Not available.
VOC content:	83.8 %; 712 g/l EPA Method 24

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Hydrogen chloride. Carbonyl chloride.
Incompatible materials:	Strong acids. Strong oxidizing agents.
Conditions to avoid:	Not determined

11. TOXICOLOGICAL INFORMATION

Toxicologically synergistic products: Not available.

Refer to the following for Irritancy of Product, Sensitization to Product, Carcinogenicity, Reproductive Toxicity, Teratogenicity, and Mutagenicity.

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)	ACGIH Carcinogen
Toluene	No	No	No	Group A4
Methyl ethyl ketone	No	No	No	No
Polychloroprene synthetic rubber	No	No	No	No
Carbon black	No	Group 2B	No	Group A3
Silicic acid (H ₆ Si ₂ O ₇), aluminum salt (1:2)	No	No	No	Group A4
Xylenes	No	No	No	Group A4

Hazardous components	LD50s and LC50s	Health Effects/Target Organs
Toluene	Oral LD50 (RAT) = 5,000 mg/kg Oral LD50 (RAT) = 2.6 g/kg Dermal LD50 (rabbit) = 12,124 mg/kg Inhalation LC50 (RAT, 1 h) = 26,700 mg/l Inhalation LC50 (RAT, 4 h) = 8,000 mg/l Inhalation LC50 (RAT, 2 h) = 12,200 mg/l	Behavioral, Cardiac, Central nervous system, Developmental, Ear, Irritant
Methyl ethyl ketone	Oral LD50 (RAT) = 2,300 - 3,500 mg/kg Oral LD50 (RAT) = 4,500 - 6,800 mg/kg Dermal LD50 (rabbit) > 8,000 mg/kg Inhalation LC50 (RAT, 4 h) = 11,700 mg/l	Irritant, Central nervous system
Polychloroprene synthetic rubber	None	No Data
Carbon black	Oral LD50 (RAT) > 8,000 mg/kg	Respiratory, Some evidence of carcinogenicity
Silicic acid (H ₆ Si ₂ O ₇), aluminum salt (1:2)	None	No Records
Xylenes	Oral LD50 (RAT) = 4,300 mg/kg Oral LD50 (RAT) = 6,670 mg/kg Oral LD50 (RAT) = 3,523 - 8,600 mg/kg Dermal LD50 (rabbit) > 43 g/kg Inhalation LC50 (RAT, 4 h) = 6,350 mg/l	Cardiac, Central nervous system, Irritant, Kidney, Liver

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

Canada Transportation of Dangerous Goods - Ground

Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Toluene, Methyl ethyl ketone)
Hazard class or division: 3
Identification number: UN 1993
Packing group: II

International Air Transportation (ICAO/IATA)

Proper shipping name: Flammable liquid, n.o.s. (Toluene, Methyl ethyl ketone)
Hazard class or division: 3
Identification number: UN 1993
Packing group: II
Exceptions: May Qualify as Consumer Commodity, (Not more than 500 ml), ID8000

Water Transportation (IMO/IMDG)

Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Toluene, Methyl ethyl ketone)
Hazard class or division: 3
Identification number: UN 1993
Packing group: II
Exceptions: Limited quantity (Not more than 5 L).

15. REGULATORY INFORMATION

Canada Regulatory Information

CEPA DSL/NDL Status: One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-Domestic Substances List.

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.

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 1

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR), and the MSDS contains all the information required by the CPR.

Prepared by: Kyra Kozak Woods, Manager, Regulatory Affairs

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Revision Number: 003.0

Issue date: 08/25/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE SF 75326 CLEAN UP SOLVENT known as Clean Up Solvent	IDH number:	234979
Product use:	Solvent	Item number:	75326
		Region:	Canada
Company address:	Contact information:		
Henkel Corporation	Telephone: 905.814.6511		
2515 Meadowpine Boulevard	MEDICAL EMERGENCY Phone: Poison Control Center		
Mississauga, Ontario L5N 6C3	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	WHMIS hazard class:	B.3, D.2.B
Color:	Clear		
Odor:	Mild, amine-like		

WARNING: COMBUSTIBLE LIQUID.
CAUSES EYE IRRITATION.
MAY CAUSE SKIN IRRITATION.
MAY BE HARMFUL IF INHALED.

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

Potential Health Effects

Inhalation:	Vapors may cause headaches, nausea, dizziness and respiratory tract irritation. May be harmful if inhaled.
Skin contact:	May cause skin irritation. Prolonged or repeated contact has caused severe dermatitis including blisters, cracking, edema and redness.
Eye contact:	Causes eye irritation.
Ingestion:	May cause gastrointestinal tract irritation if swallowed.

Existing conditions aggravated by exposure: None generally recognized.

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
N-Methyl-2-pyrrolidone	872-50-4	60 - 100

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.

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. Never give anything by mouth to an unconscious person. Get medical attention.

5. FIRE FIGHTING MEASURES

Flash point: 92.7 °C (198.86 °F) Closed cup

Autoignition temperature: 270 °C (518°F)

Flammable/Explosive limits - lower: 1.3 %

Flammable/Explosive limits - upper: 9.5 %

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. In case of fire, keep containers cool with water spray.

Unusual fire or explosion hazards: Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back. Vapors may form explosive mixtures with air. Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers.

Hazardous combustion products: Oxides of carbon. Oxides of nitrogen. Irritating organic vapours. Hydrocarbons.

Sensitivity to Mechanical Impact: Not available.

Sensitivity to static discharge: Not available.

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. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a closed container until ready for disposal. Rinse spill area with water. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling: Keep container closed. Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. 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.

For information on product shelf life contact Henkel Canada Customer Service at 800-263-5043.

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
N-Methyl-2-pyrrolidone	None	None	10 ppm (40 mg/m ³) TWA (SKIN)	None

Engineering controls:	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
Respiratory protection:	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
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:	Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. Neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Clear
Odor:	Mild, amine-like
Odor threshold:	Not available.
pH:	7.2
Vapor pressure:	0.29 mm hg (20 °C (68°F))
Boiling point/range:	202 °F (94.4 °C)
Melting point/ range:	-24.4 °C (-11.9 °F)
Specific gravity:	1.025 - 1.035 at 25 °C (77°F)
Vapor density:	Not available.
Flash point:	92.7 °C (198.86 °F) Closed cup
Flammable/Explosive limits - lower:	1.3 %
Flammable/Explosive limits - upper:	9.5 %
Autoignition temperature:	270 °C (518°F)
Evaporation rate:	Not available.
Solubility in water:	Miscible
Partition coefficient (n-octanol/water):	Not available.
VOC content:	99 %; 1,028.9 g/l EPA Method 24

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen. Hydrocarbons. Irritating organic vapours.
Incompatible materials:	Strong acids, alkalis and oxidizing agents. Strong reducing agents.
Conditions to avoid:	Exposure to moisture. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials. Extremes of temperature and direct sunlight.

11. TOXICOLOGICAL INFORMATION

Product toxicity data:	Non-sensitizing to guinea pigs (1% v/v solution)., Non-sensitizing (Human RIPT - 15 applications)., Non-mutagenic (In-vivo and in-vitro).
Acute oral product toxicity:	LD50 (rat) 4,200 mg/kg
Acute dermal product toxicity:	LD50 (rat) 8,000 mg/kg
Acute inhalation product toxicity:	LC50 (rat) > 400 ppm

Toxicologically synergistic products: Not available.

Refer to the following for Irritancy of Product, Sensitization to Product, Carcinogenicity, Reproductive Toxicity, Teratogenicity, and Mutagenicity.

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)	ACGIH Carcinogen
N-Methyl-2-pyrrolidone	No	No	No	No

Hazardous components	LD50s and LC50s	Health Effects/Target Organs
N-Methyl-2-pyrrolidone	Oral LD50 (RAT) = 4,320 mg/kg Oral LD50 (RAT) = 3,914 mg/kg Dermal LD50 (RABBIT) = 8,000 mg/kg	Blood, Bone Marrow, Central nervous system, Immune system, Irritant, Lung

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

Canada Transportation of Dangerous Goods - Ground

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

15. REGULATORY INFORMATION

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

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.

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 2,4,5,6,7,8,10

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR), and the MSDS contains all the information required by the CPR.

Prepared by: Sheila Gines, Regulatory Affairs Specialist

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