



Revision Number: 007.0

Issue date: 01/17/2020

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE ECCOBOND F 123-H known as TRA-BOND F123-H
Product type/use: Hardener
Restriction of Use: None identified
Company address: Henkel Corporation
 One Henkel Way
 Rocky Hill, Connecticut 06067

IDH number: 1569074
Item number: X
Region: United States
Contact information:
 Telephone: +1 (860) 571-5100

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER: HARMFUL IF SWALLOWED.
 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.
 MAY CAUSE AN ALLERGIC SKIN REACTION.
 SUSPECTED OF CAUSING CANCER.
 MAY DAMAGE FERTILITY OR THE UNBORN CHILD.

HAZARD CLASS	HAZARD CATEGORY
ACUTE TOXICITY ORAL	4
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1
CARCINOGENICITY	2
REPRODUCTIVE TOXICITY	1B

PICTOGRAM(S)



Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
2-Ethyl-4-methylimidazole	931-36-2	60 - 80
imidazole	288-32-4	10 - 30
4-Methylimidazole	822-36-6	5 - 10
Tetraethylene pentamine	112-57-2	1 - 5
3,6-diazaoctanethylenediamin	112-24-3	0.1 - 1
3,6,9,12-tetraazatetradecamethylenediamine	4067-16-7	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

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. Get medical attention. Wash clothing before reuse.
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.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

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:	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Hazardous combustion products:	Oxides of carbon, oxides of nitrogen, irritating organic vapors. Ammonia.

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. Ensure adequate ventilation. Isolate area. Keep unnecessary personnel away. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Store in a closed container until ready for disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling: Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not taste or swallow. 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, 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 Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
2-Ethyl-4-methylimidazole	None	None	None	None
imidazole	None	None	None	None
4-Methylimidazole	None	None	None	None
Tetraethylene pentamine	None	None	1 ppm (5 mg/m ³) TWA Aerosol. (SKIN) Aerosol. (Skin sensitizer)	None
3,6-diazaoctanethylenediamin	None	None	1 ppm (6 mg/m ³) TWA (SKIN)	None
3,6,9,12-tetraazatetradecamethylenediamine	None	None	None	None

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection: Use a NIOSH approved air-purifying respirator 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. 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. Cover as much of the exposed skin area as possible with appropriate clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Light yellow
Odor:	Ammonia
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	< 1.00 mm hg
Boiling point/range:	Not determined
Melting point/ range:	Not determined
Specific gravity:	1
Vapor density:	> 5.0
Flash point:	> 93 °C (> 199.4 °F) Closed cup
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not applicable
Solubility in water:	Soluble
Partition coefficient (n-octanol/water):	Not determined

VOC content: < 0.1 % (by weight)
Viscosity: Not available.
Decomposition temperature: Not available.

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. Irritating vapors. Ammonia.

Incompatible materials: Strong oxidizing agents. Strong acids and strong bases.

Reactivity: Not available.

Conditions to avoid: High temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

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

Potential Health Effects/Symptoms

Inhalation: May cause severe irritation. Harmful if inhaled; may cause delayed lung damage.
Skin contact: Causes skin burns. May cause allergic skin reaction.
Eye contact: Causes serious eye damage. Burns of the eye may cause blindness.
Ingestion: Harmful if swallowed. Irritation and corrosive action can occur in the mouth, stomach tissue and digestive tract if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
2-Ethyl-4-methylimidazole	None	No Target Organs
imidazole	None	Allergen, Developmental, Gastrointestinal, Liver, Reproductive
4-Methylimidazole	Oral LD50 (Mouse) = 370 mg/kg Oral LD50 (Rat) = 751 mg/kg Dermal LD50 (Rabbit) = 440 mg/kg	No Data
Tetraethylene pentamine	Oral LD50 (Rat) = 3.99 g/kg Oral LD50 (Rat) = 2.1 g/kg Dermal LD50 (Rabbit) = 0.66 g/kg	Irritant, Mutagen, Allergen
3,6-diazaoctanethylenediamin	None	Allergen, Corrosive, Developmental, Irritant, Mutagen
3,6,9,12-tetraazatetradecamethylenediamine	None	Irritant, Allergen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
2-Ethyl-4-methylimidazole	No	No	No
imidazole	No	No	No
4-Methylimidazole	No	Group 2B	No
Tetraethylene pentamine	No	No	No
3,6-diazaoctanethylenediamin	No	No	No
3,6,9,12-tetraazatetradecamethylenediamine	No	No	No

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.
Hazardous waste number:	Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. D002: Corrosive.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

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

Proper shipping name:	Corrosive liquid, basic, organic, n.o.s. (Imidazole, Tetraethylene pentamine)
Hazard class or division:	8
Identification number:	UN 3267
Packing group:	III

International Air Transportation (ICAO/IATA)

Proper shipping name:	Corrosive liquid, basic, organic, n.o.s. (Imidazole, Tetraethylene pentamine)
Hazard class or division:	8
Identification number:	UN 3267
Packing group:	III

Water Transportation (IMO/IMDG)

Proper shipping name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Imidazole, Tetraethylene pentamine)
Hazard class or division:	8
Identification number:	UN 3267
Packing group:	III

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS:	None above reporting de minimis.
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health
CERCLA/SARA Section 313:	None above reporting de minimis.
California Proposition 65:	This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDSL Status:	Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.
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16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2,3,8,11,16

Prepared by: Product Safety and Regulatory Affairs

Issue date: 01/17/2020

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