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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE ABLESTIK 45 BK known as ECCOBOND 45 BLK 1# (SPEC)	IDH number:	1581776
Product type:	Epoxy resin	Region:	United States
Restriction of Use:	None identified	Contact information:	Telephone: (860) 571-5100
Company address:	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	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	
WARNING:	CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1



Precautionary Statements

Prevention:	Avoid breathing vapors, mist, or spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye and face protection. Wear protective gloves.
Response:	IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.
Storage:	Not prescribed
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

IDH number: 1581776

Product name: LOCTITE ABLESTIK 45 BK known as ECCOBOND 45 BLK 1# (SPEC)
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Hazardous Component(s)	CAS Number	Percentage*
Mica	12001-26-2	30 - 60
Epoxy resin	Proprietary	30 - 60
Phenyl glycidyl ether	122-60-1	1 - 5
Quartz (SiO ₂)	14808-60-7	0.1 - 1
Carbon black	1333-86-4	0.1 - 1

* Exact percentage is a 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. If symptoms develop and persist, 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. Toxic and irritating 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 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. 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
Mica	3 mg/m ³ TWA Respirable fraction.	20 MPPCF TWA	None	None
Epoxy resin	None	None	None	None
Phenyl glycidyl ether	0.1 ppm TWA (SKIN) (Dermal sensitization)	10 ppm (60 mg/m ³) PEL	None	None
Quartz (SiO ₂)	0.025 mg/m ³ TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m ³ TWA Respirable. 0.3 mg/m ³ TWA Total dust.	None	None
Carbon black	3 mg/m ³ TWA Inhalable fraction.	3.5 mg/m ³ PEL	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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Black
Odor:	None
Odor threshold:	Not available.
pH:	Not available.
Vapor pressure:	< 0.1 mm hg
Boiling point/range:	Not determined
Melting point/ range:	Not available.
Specific gravity:	1.58
Vapor density:	Not available.
Flash point:	> 93 °C (> 199.4 °F)
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Evaporation rate:	Not available.
Solubility in water:	Insoluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	< 0.1 %
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. Aldehydes. Acids. Irritating organic vapours.

Incompatible materials: Strong oxidizing agents. Strong acids and strong bases. Primary and secondary aliphatic amines.

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

Potential Health Effects/Symptoms

Inhalation: May cause respiratory tract irritation.
Skin contact: Causes skin irritation. May cause allergic skin reaction.
Eye contact: Causes serious eye irritation.
Ingestion: May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Mica	None	Lung
Epoxy resin	None	Allergen, Irritant
Phenyl glycidyl ether	Oral LD50 (RAT) = 2.5 g/kg Dermal LD50 (RABBIT) = 1,500 mg/kg Inhalation LC50 (RAT, 8 h) = > 100 mg/l	Allergen, Blood, Bone Marrow, Central nervous system, Immune system, Irritant, Reproductive, Respiratory, Some evidence of carcinogenicity
Quartz (SiO ₂)	None	Immune system, Lung, Some evidence of carcinogenicity
Carbon black	Oral LD50 (RAT) = > 8,000 mg/kg	Respiratory, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Mica	No	No	No
Epoxy resin	No	No	No
Phenyl glycidyl ether	No	Group 2B	No
Quartz (SiO ₂)	Known To Be Human Carcinogen.	Group 1	No
Carbon black	No	Group 2B	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: Not a RCRA hazardous waste.

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

International Air Transportation (ICAO/IATA)

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
Marine pollutant: Epoxy resin

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 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. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

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

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Tricia Voghell, Regulatory Affairs Specialist

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STANDARD CATALYSTS FOR EMERSON & CUMING™ BRAND PRODUCTS

CATALYST	9	11	14	15
Type	Modified aliphatic amine	Modified aromatic amine	Anhydride	Polyamide
Viscosity	80 – 100 mPa.s	35 – 60 mPa.s (at 35°C)	Powder	20 – 40 Pa.s
Color	Amber	Tan to dark brown	White	Black
Density (g/cm ³)	0.99 – 1.01	1.0 – 1.1	0.77 – 0.79	0.95 – 0.98
Amount of Catalyst used in relation to Catalyst 9 (in x CATALYST 9)	1.00	1.20	2.5	7.0 – 21.1
Pot life (100 g at 25°C)	45 min	4 h	24 h	2 h
Shelf life at RT	1 year in unopened containers	1 year in unopened containers	1 year in unopened containers	1 year in unopened containers
Cure Schedule	16 to 24 h at RT or 2 h at 65°C	2 h at 100°C + 4 h at 150°C	3 h at 150°C + 3 to 16 h at 180°C	16 to 24 h at RT or 2 h at 80°C
Service Temperature (°C) -Continuous - Intermittent	130 150	180 200	180 200	90 120
Advantages	Chemical resistant Physical Strength RT Cure Low viscosity Low cost	Outstanding chemical resistance Physical strength Pot life Low viscosity High temperature performance Thermal shock resistant (in some cases)	High temperature performance Chemical resistance Pot life	RT cure Adjustable flexibility Pot life Low toxicity Wide mixing ratio Low cost
Disadvantages	Brittle (not good for low temperature) Pot life Toxicity	Elevated temperature cure Stains skin May crystallize at RT (heat to 65°C to liquefy) Cost Toxicity	High temperature cure Odor	High viscosity Softens at elevated temperatures
Other comments	Good all-round epoxy curative	CATALYST 11 is subject to partial crystallization at RT To remove crystals warm gently to at least 65°C and maintain until all crystals have gone into solution Storage is possible for several days at RT without crystallization	Keep away from moisture	Easiest epoxy curative to use Can mix with epoxy even without sophisticated weighing equipment

CATALYST	15LV	17	23 LV	24 LV
Type	Polyamide	Anhydride	Modified aliphatic amine	Modified aliphatic amine
Viscosity	5 – 15 Pa.s	Slurry (at 35°C)	20 – 30 mPa.s	30 – 40 mPa.s
Color	Black	Blue – grey	Water-white to slight amber	Water-white to slight amber
Density (g/cm ³)	0.95 – 0.98	1.3 – 1.5	1.0 – 1.03	1.0 – 1.03
Amount of Catalyst used in relation to Catalyst 9 (in x CATALYST 9)	3.5 – 14.0	2.8	2.00	2.00
Pot life (100 g at 25°C)	2 h	24 h	60 min	30 min
Shelf life at RT	1 year in unopened containers	1 year in unopened containers	1 year in unopened containers	1 year in unopened containers
Cure Schedule	16 to 24 h at RT or 2 h at 80°C	3 h at 120°C + 2 h at 150°C + 16 h at 175°C	16 to 24 h at RT or 4 h at 65°C	8 to 16 h at RT or 2 h at 65°C
Service Temperature (°C) -Continuous - Intermittent	65 90	230 (260)	105 120	105 120
Advantages	RT cure Adjustable flexibility Pot life Low toxicity Wide mixing ratio Low cost	Very good high temperature performance Pot life Low viscosity	Low viscosity Low cost Thermal shock resistance Pot life Tough impact resistance Low color	Low viscosity Thermal shock resistant Tough impact resistant Low color
Disadvantages	Softens at elevated temperature	Elevated temperature cure High cost	Longer cure at RT than CATALYST 24 LV	Pot life Cost
Other comments	Easiest epoxy curative to use Can mix with epoxy even without sophisticated weighing equipment	CATALYST 17 may be solid at RT When warmed to 65°C, it will liquefy. Cool down to room temperature before use		Has tendency to semi-thixotrope various epoxy systems

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CATALYST	27-1	28	30	43
Type	Modified aromatic amine	Modified aromatic amine	Modified aliphatic amine	Imidazole / aliphatic amine
Viscosity	250 – 300 mPa.s	250 – 300 mPa.s	70 – 90 mPa.s	40 – 60 mPa.s
Color	Brown	Brown	Slight amber	Amber
Density (g/cm ³)	1.0 – 1.05	1.0 – 1.05	0.92 – 0.96	0.90 – 1.10
Amount of Catalyst used in relation to Catalyst 9 (in x CATALYST 9)	1.75	1.75	2.70	0.75
Pot life (100 g at 25°C)	2 h	2.5 – 3 h	60 min	40 min
Shelf life at RT	1 year in unopened containers	1 year in unopened containers	1 year in unopened containers	1 year in unopened containers
Cure Schedule	4 h at 120°C	4 h at 120°C	24 h at RT or 4 h at 65°C	16 to 24 h at 65°C or 2 to 4 h at 150°C
Service Temperature (°C)				
-Continuous	175	175	90	
-Intermittent	200	200	120	205
Advantages	Chemical resistance Physical strength Pot life High temperature performance	Chemical resistance Physical strength Pot life High temperature performance	Non-blushing Resilient (more than CATALYST 9) Low viscosity RT cure Low color	High temperature resistant Low cure temperature
Disadvantages	Elevated temperature cure Cost	Elevated temperature cure Cost	Cost	Brittleness
Other comments	Non-staining alternative for CATALYST 11 ; Cannot be used in combination with the following products: STYCAST™ 2057™ / STYCAST™ 2651MM™ Series / STYCAST™ 2741LV™ / STYCAST™ 3050™ / STYCAST™ 45LV™	Non-staining alternative for CATALYST 11	Excellent epoxy curative if appearance is important	Non-staining alternative for CATALYST 11

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