



Revision Number: 004.2

Issue date: 09/18/2018

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE EDAG 154 E&C known as ELECTRODAG154
Product type: Coating
Restriction of Use: None identified
Company address: Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 1224856

Region: United States
Contact information:
Telephone: +1 (860) 571-5100
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**

DANGER: HIGHLY FLAMMABLE LIQUID AND VAPOR.
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.
CAUSES SKIN IRRITATION.
CAUSES SERIOUS EYE IRRITATION.
MAY CAUSE DROWSINESS OR DIZZINESS.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	2
SKIN IRRITATION	2
EYE IRRITATION	2A
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
ASPIRATION HAZARD	1

PICTOGRAM(S)**Precautionary Statements**

Prevention: Keep away from heat, sparks, open flames, hot surfaces - no smoking. Keep container tightly closed. No release into water. Use explosion-proof equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, eye protection, and face protection.

Response: IF SWALLOWED: Immediately call a physician or poison control center. 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. Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do NOT induce vomiting. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. 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-Propanol	67-63-0	60 - 70
Graphite	7782-42-5	10 - 20
2-Methylpentane-2,4-diol	107-41-5	1 - 5
n-Butyl alcohol	71-36-3	1 - 5
1-Methoxy -2-propanol	107-98-2	1 - 5

* 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. Wash clothing before reuse. If symptoms develop and persist, get medical attention.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion:	Aspiration may cause pulmonary edema and pneumonitis. DO NOT induce vomiting unless directed to do so by medical personnel. 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:	Fire and Explosion hazards are DANGEROUS when this material is exposed to heat or flame. Vapors are heavier than air and may travel to ignition sources and flash back. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Hazardous combustion products:	Oxides of carbon. Hydrocarbons. 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.
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Clean-up methods:

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 partly filled, closed container until disposal.

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. Ground and bond all equipment as required (when transferring products). Keep away from heat, spark and flame.

Storage:

For safe storage, store between 5 °C (41°F) and 32 °C (89.6 °F). Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Ground and bond metal containers for liquid transfer to avoid static sparks. Protect from direct sunlight. Do not pressurize, cut, heat or weld containers. Empty product containers may contain product residue. Do not reuse empty containers.

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-Propanol	200 ppm TWA 400 ppm STEL	400 ppm (980 mg/m ³) PEL	None	None
Graphite	2 mg/m ³ TWA Respirable fraction.	5 mg/m ³ PEL Respirable fraction. 15 mg/m ³ PEL Total dust. 15 MPPCF TWA	None	None
2-Methylpentane-2,4-diol	10 mg/m ³ STEL Aerosol, inhalable. 50 ppm STEL Vapor fraction 25 ppm TWA Vapor fraction	None	None	None
n-Butyl alcohol	20 ppm TWA	100 ppm (300 mg/m ³) PEL	None	None
1-Methoxy -2-propanol	50 ppm TWA 100 ppm STEL	None	None	None

Engineering controls:

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product. Explosion-proof exhaust devices are required.

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 impermeable gloves and protective clothing as necessary to prevent skin contact. Gloves should be tested to determine suitability for prolonged contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Black
Odor:	Alcohol
Odor threshold:	7.5 ppm
pH:	Not available.
Vapor pressure:	31 mm hg
Boiling point/range:	> 82.3 °C (> 180.1 °F)
Melting point/ range:	< 0 °C (< 32°F)
Specific gravity:	0.875 - 0.900
Vapor density:	2.07 (Air = 1)
Flash point:	11.1 °C (51.98 °F) Pensky Martens closed cup
Flammable/Explosive limits - lower:	2 %
Flammable/Explosive limits - upper:	12 %
Autoignition temperature:	> 398.8 °C (> 749.84 °F)
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Soluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	80 %; 710 g/l (calculated)
Viscosity:	200 - 400 cp
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
Hazardous decomposition products:	Oxides of carbon. Hydrocarbons. Irritating organic vapours.
Incompatible materials:	Strong oxidizing agents (peroxides, chlorine, strong acids). 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
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Potential Health Effects/Symptoms

Inhalation:	May cause respiratory tract irritation. May cause central nervous system effects with nausea, dizziness and headache.
Skin contact:	Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Eye contact:	Causes eye irritation. Exposure to vapor may cause tearing of the eyes, irritation and burning sensation.
Ingestion:	May cause gastrointestinal tract irritation if swallowed. Principal hazard of ingestion is aspiration into the lungs and subsequent pneumonitis.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
2-Propanol	Oral LD50 (Rat) = 5,045 mg/kg Oral LD50 (Mouse) = 3,600 mg/kg Oral LD50 (Rabbit) = 6,410 mg/kg Oral LD50 (Rat) = 4.7 g/kg Oral LD50 (Mouse) = 4.5 g/kg Oral LD50 (Rabbit) = 8.0 g/kg Oral LD50 (Rabbit) = 5.03 g/kg Dermal LD50 (Rabbit) = 12,800 mg/kg	Allergen, Central nervous system, Irritant
Graphite	None	Lung
2-Methylpentane-2,4-diol	Oral LD50 (Rat) = 4.79 g/kg Oral LD50 (Mouse) = 3.5 g/kg	Irritant, Central nervous system
n-Butyl alcohol	Oral LD50 (Rat) = 790 mg/kg Dermal LD50 (Rabbit) = 3,400 mg/kg	Allergen, Central nervous system, Ear, Eyes, Irritant
1-Methoxy -2-propanol	Oral LD50 (Rat) = 36 g/kg Oral LD50 (Rat) = 5.71 g/kg Oral LD50 (Rat) = 7.51 g/kg Oral LD50 (Mouse) = 10.8 g/kg Oral LD50 (Rabbit) = 5.3 g/kg Dermal LD50 (Rabbit) = 13 g/kg	Central nervous system, Developmental, Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
2-Propanol	No	No	No
Graphite	No	No	No
2-Methylpentane-2,4-diol	No	No	No
n-Butyl alcohol	No	No	No
1-Methoxy -2-propanol	No	No	No

12. ECOLOGICAL INFORMATION**Ecological information:**

Do not empty into drains / surface water / ground water.

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. D001: Ignitable.

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: Paint
Hazard class or division: 3
Identification number: UN 1263
Packing group: II

International Air Transportation (ICAO/IATA)

Proper shipping name: Paint
Hazard class or division: 3
Identification number: UN 1263
Packing group: II

Water Transportation (IMO/IMDG)

Proper shipping name: PAINT
Hazard class or division: 3
Identification number: UN 1263
Packing group: II

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, Fire
CERCLA/SARA Section 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). n-Butyl alcohol (CAS# 71-36-3).
2-Propanol (CAS# 67-63-0)

CERCLA Reportable quantity:

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

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 Material Safety Data Sheet format.

Prepared by: Regulatory Affairs

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