



Revision date: 11/2012

<https://www.laddresearch.com/>
<https://www.laddresearch.com/chemicals/lubricants-conductive-coatings-and-paints/electrodag-440-as-5-kg-can/>

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	ELECTRODAG 440 AS	IDH number:	1238804
Product type:	Coating	Region:	United States
Company address:	Contact information:		
Henkel Corporation	Telephone: 248.583.9300		
32100 Stephenson Highway	For Chemical Emergency: Call CHEMTREC at 800.424.9300		
Madison Heights, MI 48071	Internet: www.henkelna.com		

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state:	Liquid	HEALTH:	*2
Color:	grey	FLAMMABILITY:	3
Odor:	Solvent	PHYSICAL HAZARD:	1
		Personal Protection:	See MSDS Section 8

DANGER: FLAMMABLE!
MAY BE HARMFUL OR FATAL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED.
CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation:	Inhalation of vapors or mists of the product may be irritating to the respiratory system. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination. Continued overexposure may result in coma, respiratory arrest, and death.
Skin contact:	Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis. Prolonged or repeated contact may worsen irritation.
Eye contact:	This product may be severely irritating to the eyes.
Ingestion:	This product is harmful or fatal if swallowed. Ingestion of this product may cause nausea, vomiting and diarrhea. Small amounts of this product, if aspirated into the lungs, may cause mild to severe pulmonary injury.

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

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Nickel	7440-02-0	30 - 60
n-Butyl acetate	123-86-4	10 - 20
Glycol ether	Proprietary	5 - 10
Toluene	108-88-3	5 - 10
Ethanol	64-17-5	1 - 5
Xylenes	1330-20-7	1 - 5
Methyl methacrylate	80-62-6	0.1 - 1
Ethylbenzene	100-41-4	0.1 - 1
Acrylic Polymer	Unknown	5 - 10

4. FIRST AID MEASURES

Inhalation:	If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.
Skin contact:	Immediately flush with large quantities of water for at least 15 minutes. Remove contaminated clothing. 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:	Do not induce vomiting. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash point:	17 °C (62.6 °F) no method
Autoignition temperature:	Not available
Flammable/Explosive limits - lower:	1.2 %
Flammable/Explosive limits - upper:	19 %
Extinguishing media:	Carbon dioxide, foam, powder
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Unusual fire or explosion hazards:	Not available
Hazardous combustion products:	Combustion products include fumes, smoke, carbon monoxide, carbon dioxide and sulfur dioxide.

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:	Prevent further leakage or spillage. Wear suitable protective clothing, gloves and eye/face protection. Do not let product enter drains.
Clean-up methods:	Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

7. HANDLING AND STORAGE

Handling:

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. Wash thoroughly after handling. Do not take internally. For industrial use only.

Storage:

Store away from heat, sparks, flames, or other sources of ignition. Keep out of direct sunlight. Keep closed in a cool, dry area.

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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Nickel	1.5 mg/m ³ TWA Inhalable fraction.	1 mg/m ³ TWA (as Ni)	None	None
n-Butyl acetate	150 ppm TWA 200 ppm STEL	150 ppm (710 mg/m ³) TWA	None	None
Glycol ether	None	None	None	None
Toluene	20 ppm TWA	200 ppm TWA 300 ppm Ceiling 500 ppm MAX. CONC 10 minutes	None	None
Ethanol	1,000 ppm STEL	1,000 ppm (1,900 mg/m ³) TWA	None	None
Xylenes	100 ppm TWA 150 ppm STEL	100 ppm (435 mg/m ³) TWA	None	None
Methyl methacrylate	50 ppm TWA 100 ppm STEL (Sensitiser.)	100 ppm (410 mg/m ³) TWA	None	50 ppm
Ethylbenzene	100 ppm TWA 125 ppm STEL	100 ppm (435 mg/m ³) TWA	None	None
Acrylic Polymer	None	None	None	None

Engineering controls:

Prevent electrostatic charge build-up by using common bonding and grounding techniques. Use explosion-proof mechanical ventilation and local exhaust to control contaminants to within their occupational exposure limits during the use of this product.

Respiratory protection:

If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

Eye/face protection:

Wear chemical goggles; face shield (if splashing is possible).

Skin protection:

Chemical resistant, impermeable gloves. Use of impervious apron and boots are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	grey
Odor:	Solvent
Odor threshold:	Not available
pH:	Not applicable
Vapor pressure:	Not available
Boiling point/range:	110 °C (230°F)
Melting point/ range:	Not available
Vapor density:	Not available
Flash point:	17 °C (62.6 °F) no method
Flammable/Explosive limits - lower:	1.2 %
Flammable/Explosive limits - upper:	19 %
Autoignition temperature:	Not available

Evaporation rate:	Not available
Solubility in water:	Insoluble
Partition coefficient (n-octanol/water):	Not available
VOC content:	Not available
Viscosity:	4,500 - 7,000 mPa.s

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Incompatible materials:	This product may react with strong acids or oxidizing agents.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition. This product may react with strong acids or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Nickel	Anticipated carcinogen.	Group 2B	No
n-Butyl acetate	No	No	No
Glycol ether	No	No	No
Toluene	No	No	No
Ethanol	No	No	No
Xylenes	No	No	No
Methyl methacrylate	No	No	No
Ethylbenzene	No	Group 2B	No
Acrylic Polymer	No	No	No

Hazardous components	Health Effects/Target Organs
Nickel	Allergen, Carcinogen, Irritant, Kidney, Mutagen, Reproductive, Respiratory
n-Butyl acetate	Irritant, Central nervous system
Glycol ether	Central nervous system, Irritant, Kidney
Toluene	Behavioral, Cardiac, Central nervous system, Developmental, Ear, Irritant
Ethanol	Irritant, Central nervous system
Xylenes	Cardiac, Central nervous system, Irritant, Kidney, Liver
Methyl methacrylate	Allergen, Irritant, Kidney, Liver, Mutagen, Nervous System, Respiratory
Ethylbenzene	Irritant, Central nervous system
Acrylic Polymer	No Data

12. ECOLOGICAL INFORMATION

Ecological information:	No data available.
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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: If discarded, this product is considered a RCRA ignitable waste, D001.

14. TRANSPORT INFORMATION

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

Proper shipping name: Flammable liquids, n.o.s. (n-Butylacetate, Toluene)
Hazard class or division: 3
Identification number: UN 1993
Packing group: II
DOT Reportable quantity: Nickel, Xylene (mixed)

International Air Transportation (ICAO/IATA)

Proper shipping name: Flammable liquid, n.o.s. (n-Butylacetate, Toluene)
Hazard class or division: 3
Identification number: UN 1993
Packing group: II

Water Transportation (IMO/IMDG)

Proper shipping name: FLAMMABLE LIQUID, N.O.S. (n-Butylacetate, Toluene)
Hazard class or division: 3
Identification number: UN 1993
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: Xylenes (CAS# 1330-20-7).

CERCLA/SARA Section 302 EHS: None above reporting de minimus
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health, Fire
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). Nickel (CAS# 7440-02-0). Toluene (CAS# 108-88-3). Xylenes (CAS# 1330-20-7). Ethylbenzene (CAS# 100-41-4).

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: 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.

WHMIS hazard class: D.2.A, D.2.B, B.2

16. OTHER INFORMATION

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

Prepared by: John Davies, Manager, Regulatory Affairs

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