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Material Safety Data Sheet
Catalog Numbers: 60955-3, 60955-6, 60955-10

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: ELECTRODAG 437
Product type: Coating
IDH number: 1238715
Region: United States
Company address: Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071
Contact information: Telephone: 248.583.9300
For Chemical Emergency: Call CHEMTREC at 800.424.9300
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state: Liquid
Color: Copper
Odor: Solvent
HMIS:
HEALTH: 2
FLAMMABILITY: 3
PHYSICAL HAZARD: 0
Personal Protection: See MSDS Section 8
DANGER: FLAMMABLE!
CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation: This product is irritating to the respiratory system. Excessive inhalation of fumes from many metals can produce an acute reaction known as "metal fume fever". Symptoms consist of chills and fever (very similar to and easily confused with flu symptoms) which come on a few hours after large exposures.
Skin contact: This product may cause irritation to the skin.
Eye contact: This product may cause irritation to the eyes.
Ingestion: Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Copper	7440-50-8	30 - 60
Propyl acetate	109-60-4	10 - 30
Methacrylate polymer	Proprietary	5 - 10
n-Butyl acetate	123-86-4	5 - 10
Isopentyl acetate	123-92-2	1 - 5
Titanium, tris(isooctadecanoato-O)(2-propanolato)	61417-49-0	0.1 - 1

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 wash skin thoroughly 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. Do not induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Notes to physician:	Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Flash point:	17 °C (62.6 °F)
Autoignition temperature:	Not determined
Flammable/Explosive limits - lower:	1 %
Flammable/Explosive limits - upper:	10 %
Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear full protective clothing. Wear self-contained breathing apparatus.
Unusual fire or explosion hazards:	Contains flammable solvent. Vapors are heavier than air and may travel to ignition sources and flash back. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition.
Hazardous combustion products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

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 if safe to do so. Wear appropriate protective equipment and clothing during clean-up. Do not allow product to enter sewer or waterways.
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. Wash thoroughly after handling. Use only with adequate ventilation. Avoid breathing vapors or mists of this product. Do not take internally. For industrial use only.
Storage:	For safe storage, store between 5 °C (41°F) and 30 °C (86°F) Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials.

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
Copper	1 mg/m ³ TWA (as Cu) Dust and mist. 0.2 mg/m ³ TWA Fume.	1 mg/m ³ TWA (as Cu) Dust and mist. 0.1 mg/m ³ TWA (as Cu) Fume.	None	None
Propyl acetate	200 ppm TWA 250 ppm STEL	200 ppm (840 mg/m ³) TWA	None	None
Methacrylate polymer	None	None	None	None
n-Butyl acetate	150 ppm TWA 200 ppm STEL	150 ppm (710 mg/m ³) TWA	None	None
Isopentyl acetate	50 ppm TWA 100 ppm STEL	100 ppm (525 mg/m ³) TWA	None	None
Titanium, tris(isooctadecanoato-O)(2-propanolato)	None	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.

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 safety glasses; chemical goggles (if splashing is possible).

Skin protection:

Wear impervious gloves for prolonged contact. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron and boots are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Copper
Odor:	Solvent
Odor threshold:	Not available
pH:	Not applicable
Vapor pressure:	Not determined
Boiling point/range:	102 °C (215.6 °F)
Melting point/ range:	Not determined
Specific gravity:	1.64 - 1.66
Vapor density:	Not determined
Flash point:	17 °C (62.6 °F)
Flammable/Explosive limits - lower:	1 %
Flammable/Explosive limits - upper:	10 %
Autoignition temperature:	Not determined
Evaporation rate:	Not determined
Solubility in water:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
VOC content:	33.9 %

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	None under normal processing.
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 oxidizing agents.
Conditions to avoid:	Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Copper	No	No	No
Propyl acetate	No	No	No
Methacrylate polymer	No	No	No
n-Butyl acetate	No	No	No
Isopentyl acetate	No	No	No
Titanium, tris(isooctadecanoato-O)(2-propanolato)	No	No	No

Hazardous components	Health Effects/Target Organs
Copper	Allergen, Blood, Central nervous system, Developmental, Gastrointestinal, Immune system, Irritant, Kidney, Liver, Mutagen, Sensory, Skin
Propyl acetate	Central nervous system, Irritant
Methacrylate polymer	Irritant
n-Butyl acetate	Irritant, Central nervous system
Isopentyl acetate	No Data
Titanium, tris(isooctadecanoato-O)(2-propanolato)	Behavioral, Blood, Developmental, Eyes, Gastrointestinal tract, Immune system, Irritant, Kidney, Liver, Lung, Metabolic, Nervous System, Reproductive, Skin

12. ECOLOGICAL INFORMATION

Ecological information: Harmful to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

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:	Paint (Copper)
Hazard class or division:	3
Identification number:	UN 1263
Packing group:	III
Marine pollutant:	Copper
DOT Reportable quantity:	Copper

International Air Transportation (ICAO/IATA)

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

Water Transportation (IMO/IMDG)

Proper shipping name: PAINT (Copper)
Hazard class or division: 3
Identification number: UN 1263
Packing group: III
Marine pollutant: Copper

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 minimus

CERCLA/SARA Section 302 EHS: None above reporting de minimus
CERCLA/SARA Section 311/312: Immediate 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). Copper (CAS# 7440-50-8).

CERCLA Reportable quantity: Copper (CAS# 7440-50-8) 5,000 lbs. (2,270 kg)

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

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

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: First issue.

Prepared by: John DiCerbo, Regulatory Affairs Specialist

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