

Safety Data Sheet

Section 1: Identification

GHS product identifier: Enercoat® Thermally Conductive Water-Based Epoxy
Other means of identification:

Relevant identified uses of the substance or mixture and uses advised against: For industrial and commercial use only.

Supplier/Manufacturer: Ener.co, LLC
845 Third Avenue, 6th Floor
New York, NY 10022
USA
(212) 572-0784

E-mail address of person responsible for this SDS: info@ener.co

Date of issue/Date of revision: July 16, 2020

Ener.co, Inc. expects you to read and understand this entire Safety Data Sheet, as there is important information throughout the document. Further, Ener.co, Inc. expects you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

To promote safe handling, each customer or recipient should: 1) Notify its employees, agents, contractors, and others whom it knows or believes will use this material of the information contained in this SDS and any other information regarding hazards and safety; 2) Furnish this same information to each of its customers for the product; 3) Request its customers to notify their employees, customers, and other users of the product of this information; and 4) Notify its employees, agents, contractors, and others that the precautions identified for this product and any other products with which mixtures may be created are transferable and cumulative to the mixture.

Section 2: Hazards Identification

Classification of the substance or mixture: This product is classified as a water-based coating. No component is designated as dangerous.

Hazard Pictograms:



HAZARD CLASSIFICATION: No classification.
SIGNAL WORD: No classification.
HAZARD STATEMENT: No classification.
PRECAUTIONARY STATEMENTS: No classification.
OTHER HAZARDS: Hazardous to the aquatic environment.

Section 3: Composition/Information on Ingredients

Hazardous Ingredients: No component in this product is classified as dangerous.

Section 4: First aid measures

EYES: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Get medical attention.

SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use. Get medical attention if irritation develops and persists.

INHALATION: If any breathing problems occur during use, leave the area and get fresh air. If problems remain or occur later, get medical attention IMMEDIATELY.

INGESTION: If swallowed, seek medical attention immediately. Induce vomiting only if directed by your doctor. Do not give anything to people who have passed out.

ADDITIONAL INFORMATION: Treat any ill effects symptomatically and supportively. In the event of an incident involving this product, please ensure that medical authorities are provided with a copy of this Safety Data Sheet. In all cases, if irritation persists, seek medical attention.

EXTINGUISHING MEDIA: Water spray, dry chemical and carbon dioxide are appropriate as extinguishing agents. **DO NOT USE FULL WATER JET.**

In case of emergency, contact your local poison center.

R22: Harmful if swallowed.

R36: Irritating to eyes.

R52: Harmful to aquatic organisms.

R53: May cause long-term adverse effects in the aquatic environment.

MAIN SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED: None known

S2: Keep out of the reach of children.

S13: Keep away from food, animal feed and drinks.

S14: Keep away from incompatible substances:

- 1 ... reducing agents, heavy metal compounds, acids, bases
- 2 ... acid and oxidizing substances, heavy metal compounds
- 3 ... iron
- 4 ... water and bases
- 5 ... acids
- 6 ... metals
- 7 ... acid and oxidizing substances

S20: Do not eat or drink during use.

S21: Do not smoke during use.

S23: Do not breathe gas/fume/vapor/aerosol (appropriate term(s) to be specified by part of the manufacturer): spray

S24: Avoid contact with skin.

S25: Avoid contact with eyes.

S29: Do not throw residues into sewers.

S37: Wear suitable gloves.

S47: Keep at temperature not lower than 5°C- water based product.

EUH205: Contains epoxy components.

P102: Keep out of the reach of children.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P314: If you feel unwell, seek medical advice.

Section 5: Fire-fighting Measures

EXTINGUISHING MEDIA:	Water spray. Dry chemical. Carbon Dioxide. Foam.
UNSUITABLE EXTINGUISHING MEDIA:	Do not use full water jet.
SPECIAL PROTECTIVE EQUIPMENT:	Wear self-contained positive-pressure breathing apparatus (MSHA/NIOSH approved or precautions for firefighters equivalent) and full protective gear. Keep containers cool by spraying with water if exposed to fire.
HAZARDOUS COMBUSTION PRODUCTS:	Oxides of carbon (CO,CO ₂). Formation of toxic gases is possible during heating or in case of fire.

Section 6: Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:	When the exposure level is unknown, wear an approved, positive pressure self-contained breathing apparatus. When the exposure level is known, wear an approved respirator suitable for the exposure level. In addition to the protective equipment/ clothing described in section 8 (Exposure controls / Personal protection), wear waterproof boots.
ENVIRONMENTAL PRECAUTIONS:	Unknown
METHODS AND MATERIALS FOR CONTAINMENT AND RECLAMATION:	Cover the spills with inert absorbent material; sweep and place in a waste disposal container. Clean the spill area with jets of water. Remove sources of fire.
REFERENCE TO OTHER SECTIONS:	Unknown

Section 7: Handling and Storage

HANDLING PROCEDURES:	Avoid breathing vapours or mist. Avoid release to the environment. Avoid skin and eye contact. Wear appropriate protective equipment when handling this material. Avoid eating and drinking while using this product. Employees should wash hands and face before eating or drinking. Use adequate ventilation. Handle and open container with care. Keep ignition sources away - Do not smoke. Protect from heat.
CONDITIONS FOR SAFE STORAGE:	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well ventilated area. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Keep from freezing. Storage temperature: 0-25 °C.

Section 8: Exposure Controls/Personal Protection

BIOLOGICAL EXPOSURE LIMITS:	No value has been established.
RESPIRATORY PROTECTION:	An approved respirator may be required for operations where inhalation exposure may occur. Recommendations below. Other breathing protection devices may be used based on the user's risk assessment. Recommended devices: Full face mask with cartridge for organic vapors, filter type A (boiling point > 65 ° C).
EYE PROTECTION:	Wear eye/face protection, chemical-proof protective glasses and face shield.
SKIN PROTECTION:	Avoid contact with the skin. Wear waterproof gloves and suitable protective clothing. Since this product is absorbed through the skin, be sure to avoid skin contact and contamination of clothing.
HAND PROTECTION:	Wear protective gloves. Recommendations below. Other protective materials may be used based on the user's risk assessment. Protective creams can help protect exposed areas of the skin, but should not be applied after exposure has occurred. Replace gloves immediately if worn or if you notice changes in appearance (size, color, elasticity, etc.). Gloves for repeated and prolonged exposure - non-exhaustive list: Butyl rubber (VB), thickness: > 0.30 mm, breakthrough time: up to 480 min, Short term exposure gloves / splash protection - non-exhaustive list: Nitrile rubber (NBR), thickness: 0.38 mm, breakthrough time: up to 240 min Natural rubber (NRL), thickness: 0.75 mm, breakthrough time: up to 30 min. Chemical resistance depends on the type of product and the quantity of product on the glove. The gloves should therefore be changed in case of contact with chemicals.

Section 9: Physical and Chemical Properties

PHYSICAL STATE: Liquid.
COLOR: Black.
ODOR: Characteristic odour.
pH: 5.6.
FREEZING/MELTING POINT: Not available.
BOILING POINT (°C): Not available.
EVAPORATION RATE: Not available.
ODOR THRESHOLD (ppm): Not available.
FLAMMABILITY: Not applicable.
FLASH POINT (°C): >93.3.
UPPER FLAMMABLE LIMIT (% vol.): Nonflammable.
LOWER FLAMMABLE LIMIT (% vol.): Not available.
AUTO IGNITION TEMPERATURE (°C): Not available.
VAPOR PRESSURE: Not available.
VAPOR DENSITY (AIR = 1): Not available.
SPECIFIC GRAVITY: 1.08g/cm³.
SOLUBILITY IN WATER: Soluble.
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available.
PERCENT VOLATILE BY VOLUME: 56.95%
DECOMPOSITION TEMPERATURE: Not available.
VISCOSITY: Not available.

Section 10: Stability & Reactivity

STABILITY: This is a stable material.

CONDITIONS TO AVOID: Heat.

INCOMPATIBILITY: None known.

HAZARDOUS POLYMERIZATION: Will not occur

Section 11: Toxicological Information

POSSIBLE ROUTES OF EXPOSURE: SKIN. EYES. ORAL.

ACUTE ORAL TOXICITY: Acute LC50 >2000mg/kg.

ACUTE DERMAL TOXICITY: LC50 Acute 4H >2000mg/kg

ACUTE INHALATION TOXICITY: Acute LC50 >5mg/l (dust/mist)

SKIN CORROSION/IRRITATION: Not classified. According to the available data, there is a failure to meet the classification criteria.

SERIOUS EYE DAMAGE/IRRITATION: Not classified. According to the available data, there is a failure to meet the classification criteria.

RESPIRATORY HYPERSENSITIVITY: Not classified. According to the available data, there is a failure to meet the classification criteria.

SKIN HYPERSENSITIVITY: Not classified. According to the available data, there is a failure to meet the classification criteria.

CARCINOGENICITY: Not classified. According to the available data, there is a failure to meet the classification criteria.

STEM CELL MUTAGENICITY: Not classified. According to the available data, there is a failure to meet the classification criteria.

REPRODUCTIVE TOXICITY: Not classified. According to the available data, there is a failure to meet the classification criteria.

SPECIFIC TOXICITY FOR ORGANISMS (SOT): Not classified. According to the available data, there is a failure to meet the classification criteria.

ASPIRATION HAZARD: Not classified. According to the available data, there is a failure to meet the classification criteria.

LOCALIZED EFFECTS ON SKIN: Not irritating.

LOCALIZED EFFECTS ON EYES: No data available.

GENETIC TOXICITY: Analysis for genetic mutations - Ames test for salmonella. There is no data.

Section 12: Ecological Information

ENVIRONMENTAL:	Do not allow to enter waters, wastewater or soil. Harmful to the aquatic environment. No data available at this time.
BIODEGRADABILITY:	No data available at this time.

Section 13: Disposal Considerations

DISPOSAL METHODS:	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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Section 14: Transportation Information

UN NUMBER:	Not regulated.
SHIPPING NAME:	Not regulated.
TDG CLASSIFICATION:	Not regulated.
PACKING GROUP:	Not regulated.
OTHER INFORMATION:	This product does not constitute a hazardous substance in national/international transportation by road, rail, sea or air.
ADR / RID / ADN	
Dangerous substances:	NOT APPLICABLE/NOT SUBJECT TO REGULATION NOT APPLICABLE/NOT SUBJECT TO REGULATION.
IMO:	NOT APPLICABLE/NOT SUBJECT TO REGULATION NOT APPLICABLE/NOT SUBJECT TO REGULATION
ICAO / IATA :	NOT APPLICABLE/NOT SUBJECT TO REGULATION NOT APPLICABLE/NOT SUBJECT TO REGULATION
SPECIAL PRECAUTIONS FOR USERS:	Protect from low temperatures below + 5 ° C.
Transport M A R P O L 7 3/7 8 AND THE IBC Code:	No information is available.

Section 15: Regulatory Information

CLASSIFICATION: THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CONTROLLED PRODUCTS REGULATIONS. S2 Keep out of the reach of children.

HEALTH, SAFETY AND ENVIRONMENT REGULATIONS AND LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Substances that damage ozone (EC regulation) No. 1005/2009: Not applicable

Persistent organic pollutant (EC regulation) No. 850/2004: Not applicable

Informed prior consent: Not applicable

Substances subject to authorization (Annex XIV of Regulation (EC) No. 1907/2006): Not applicable

INVENTORY DATE

European Economic Area (including EU): If purchased from a legal entity based in the EEA (EU or Norway), the product complies with registration pursuant to REACH regulation 1907/2006 / EC as all its components are excluded, exempt or (pre) registered.

United States (S.U.A.): All components of this product are included in the TSCA Chemical Inventory or are not required to be included in the TSCA Chemical Inventory. The final product contains a component exempt from the requirement of listing in the TSCA Inventory according to the directives of the Exemption of Polymers, 40 CFR 723.250.

Canada: One or more components of this product are NOT included in the inventory of the Canadian Domestic Substances List (CSL - list of substances).

Australia: All components of this product have NOT yet been included in the Australian Inventory of Chemical Substances (AICS) or evaluated by Worksafe Australia.

China: One or more components of this product are NOT included in the Chinese inventory (IECSC). The company has obtained the necessary authorizations from the Ministry for Environmental Protection (MEP) under the "Administrative Measures for New Chemicals" for the component (s) not listed in the Chinese Inventory (IECSC). . The product can be imported / produced in China EXCLUSIVELY under specific conditions.

Japan: All product components are included in the Japanese inventories (ENCS and ISHL) or are not subject to inclusion in them.

Korea: One or more components of this product are NOT included in the Korean inventory (ECL).

Philippines: One or more components of this product are NOT included in the inventory of the Philippines (PICCS)

CHEMICAL SAFETY ASSESSMENT: No chemical risk assessment has been performed.

Section 16: Other Information (includes the date of preparation or last revision)

36 Irritation to the eyes.

51/53 Toxic to aquatic organisms. May cause longterm adverse effects in the aquatic environment. These data are based on present knowledge. They shall not, however, constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

PREPARATION DATE: Ener.co executed this Safety Data Sheet for Enercoat® Thermally Conductive Water-Based Epoxy on July 16, 2020.