

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/27/2016

Reviewed on 03/01/2017

1 Identification

- **Product Identifier**
- **Trade name:** LAMINAHEAT®™
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description** No further relevant information
- **Application of the substance / the mixture:** Heating Film/Fabric
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Lamina Heat Ltd.
3 Dublin Road Leixlip, Co.
Kildare, Ireland
Information: Safety at Work and Environmental Protection Division,
Phone +353-1-624-3031;
fax +353-1-601-4640,
email :info@laminaheat.com
- **Emergency telephone number:** Phone: +353-1-624-3031

* 2 Hazard(s) Identification

- **Classification of the substance or mixture:**
Eye Irrit. 2B H320 Causes eye irritation.
- **Label elements:**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Warning
- **Hazard statements:**
H320 Causes eye irritation.
- **Precautionary statements:**
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
- **Unknown acute toxicity:**
99 % of the mixture consists of component(s) of unknown toxicity.
- **Information pertaining to particular dangers for man and environment:**
During mechanical handling/abrasion, little amounts of carbon fabrics might be released, which can lead to a mechanical, reversible irritation of the skin, the eyes or the upper respiratory system.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Hazard(s) not otherwise classified (HNOC):** None known

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Trade name: LAMINAHEAT®™*** 3 Composition/Information on Ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

CAS: 65997-17-3	Fibrous Glass ~ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	25-50%
CAS: 7440-50-8 RTECS: GL 5325000	Copper Flam. Sol. 1, H228; ~ STOT SE 3, H335; Aquatic Acute 3, H402; Aquatic Chronic 4, H413	≤ 2.5%

· **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

*** 4 First-Aid Measures**

- **Description of first aid measures:**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Rinse with warm water. Then wash with fatty cream or emulsion.
- **After eye contact:**
Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If swallowed and symptoms occur, consult a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

*** 5 Fire-Fighting Measures**

- **Extinguishing media:**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters:** Carbon fibers / -dusts can lead to short-circuits when using technical appliances.
- **Protective equipment:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** No special precautions are necessary if used correctly.

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- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities:**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**

Components with occupational exposure limits:

65997-17-3 Fibrous Glass

PEL	Short-term value: 5 mg/m ³ Long-term value: 15 mg/m ³
TLV	Short-term value: 3 mg/m ³ Long-term value: 10 mg/m ³

7440-50-8 Copper

PEL	Long-term value: 1* 0.1** mg/m ³ as Cu *dusts and mists
REL	**fume
TLV	Long-term value: 1* 0.1** mg/m ³ as Cu *dusts and mists **fume
	Long-term value: 1* 0.2** mg/m ³

308063-67-4/231-153-3 PAN Carbon fiber

TLV	(8 hr) value: 3.5mg/m ³
PEL	Long term value: 7mg/m ³

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing and wash before reuse.
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes.
 - Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.
- **Material of gloves:** Not required.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**

R Tightly sealed goggles

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*** 9 Physical and Chemical Properties**

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 - **Form:** Sheet
 - **Color:** Black and Yellow
 - **Odor:** Odorless
 - **Odor threshold:** Not determined.
 - **pH-value:** Not applicable.
- **Change in condition**
 - **Melting point/Melting range:** Not determined.
 - **Boiling point/Boiling range:** Not determined.
- **Flash point:** None
- **Flammability (solid, gaseous):** Not determined.
- **Ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Auto igniting:** >500C
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - **Lower:** Not determined.
 - **Upper:** Not determined.
- **Vapor pressure:** Not applicable.
- **Density:**
 - **Relative density:** Not determined.
 - **Vapor density:** Not applicable.
 - **Evaporation rate:** Not applicable.
- **Solubility in / Miscibility with:**
 - **Water:** Insoluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - **Dynamic:** Not applicable.
 - **Kinematic:** Not applicable.
- **Solvent content:**
 - **Organic solvents:** 0.0 %
 - **Solids content:** 100.0 %
- **Other information:** No further relevant information available.

*** 10 Stability and Reactivity**

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.

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- **Conditions to avoid:** Avoid contact with strong oxidisers.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
During the decomposition of CO₂, CO, H₂O₂, and hydrocarbons will be produced according to the air supply.

11 Toxicological Information· **Information on toxicological effects:**· **Acute toxicity:**· **Primary irritant effect:**· **On the skin:** No irritating effect.· **On the eye:** Irritating effect.· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

Symptoms of systemic copper poisoning may include: capillary damage, headache, cold sweat, weak pulse, and kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Death may occur from shock or renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelination, kidney defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has lead to hemolytic anemia and accelerates arteriosclerosis.

· **Carcinogenic categories:**· **IARC (International Agency for Research on Cancer):**

65997-17-3 Fibrous Glass

65997-17-3

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information· **Toxicity:**· **Aquatic toxicity:****7440-50-8 Copper**

EC50 0.04-0.05 mg/l (Water flea)

· **Persistence and degradability:** No further relevant information available.· **Behavior in environmental systems:**· **Bioaccumulative potential:** No further relevant information available.· **Mobility in soil:** No further relevant information available.· **Additional ecological information:**· **General notes:**

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

· **Results of PBT and vPvB assessment:**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **Other adverse effects:** No further relevant information available.

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13 Disposal Considerations

- **Waste treatment methods:**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport Information

- **UN-Number:**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

7440-50-8 | Copper

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed or exempt from listing.

- **California Proposition 65:**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

- **New Jersey Right-to-Know List:**

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· New Jersey Special Hazardous Substance List:	
None of the ingredients are listed.	
· Pennsylvania Right-to-Know List:	
7440-50-8	Copper
· Pennsylvania Special Hazardous Substance List:	
7440-50-8	Copper
	E
· Carcinogenic categories:	
· EPA (Environmental Protection Agency):	
7440-50-8	Copper
	D
· TLV (Threshold Limit Value established by ACGIH):	
None of the ingredients are listed.	
· NIOSH-Ca (National Institute for Occupational Safety and Health):	
None of the ingredients are listed.	
· GHS label elements	
The product is classified and labeled according to the Globally Harmonized System (GHS).	
· Hazard pictograms: Non-Regulated Material	
· Signal word: Warning	
· Hazard statements:	
H320 Causes eye irritation.	
· Precautionary statements:	
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P337+P313 If eye irritation persists: Get medical advice/attention.	
· National regulations:	
The product is subject to be classified according with the latest version of the regulations on hazardous substances.	
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.	

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of preparation / last revision:** 06/27/2016 / 1

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 TLV: Threshold Limit Value

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PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Sol. 1: Flammable solids – Category 1

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

· *** Data compared to the previous version altered.**

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