



SAFETY DATA SHEET

1. Identification

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|---|---|
| Product identifier | Tflex HD700 |
| Other means of identification | None. |
| Recommended use | Thermal interface material. |
| Recommended restrictions | None known. |
| Manufacturer/Importer/Supplier/Distributor information | |
| Manufacturer | Laird |
| Address | 4707 Detroit Ave Cleveland, Ohio 44102 USA |
| Telephone number | +1-216-939-2300 |
| Email | clv-customerservice@lairdtech.com |
| Manufacturer | Laird |
| Address | C3&C4 Building, HongTai Industry Park, NO.87 Tai Feng Road, TEDA, Tianjin, China |
| Telephone number | +86(0)22-66298160 |
| Corporate Office | Laird PLC |
| Address | 100 Pall Mall, London, SW1Y 5NQ United Kingdom |
| Telephone number | +44 (0)20 7468 4040 |
| Emergency telephone number | Within USA and Canada: 1-800-424-9300 (Chemtrec). Other Countries: +1-703-527-3887. |
| Telephone hours | 24 hours per day, 7 days per week. Collect calls accepted. |

2. Hazard(s) identification

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|--|---|
| Physical hazards | Not classified. |
| Health hazards | Not classified. |
| OSHA defined hazards | Not classified. |
| Label elements | |
| Hazard symbol | None. |
| Signal word | None. |
| Hazard statement | The product is an article and therefore the classification requirements do not apply. |
| Precautionary statement | |
| Prevention | Observe good industrial hygiene practices. |
| Response | Wash hands after handling. |
| Storage | Store away from incompatible materials. |
| Disposal | Dispose of waste and residues in accordance with local authority requirements. |
| Hazard(s) not otherwise classified (HNOC) | None known. |
| Supplemental information | None. |

3. Composition/information on ingredients

Mixtures

The manufacturer lists no ingredients as hazardous to health according to OSHA 29 CFR 1910.1200.

Composition comments The ingredients in this product are fully encapsulated in silicone binder in its finished state, therefore no exposure to these materials is expected during normal use/handling of this product.

4. First-aid measures

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| Inhalation | Not relevant, due to the form of the product. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Rinse with water. Get medical attention if irritation develops and persists. |
| Ingestion | Not likely, due to the form of the product. |
| Most important symptoms/effects, acute and delayed | Under normal conditions of intended use, this product is not expected to be a health risk. |
| Indication of immediate medical attention and special treatment needed | Treat symptomatically. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. Fire-fighting measures

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| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| Fire fighting equipment/instructions | Use water spray to cool unopened containers. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |
| General fire hazards | Contains one or more components that will burn if involved in a fire. |

6. Accidental release measures

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| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. For personal protection, see section 8 of the SDS. |
| Methods and materials for containment and cleaning up | Stop the flow of material, if this is without risk. Pick up and arrange disposal. Recover and recycle, if practical. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS. |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. |

7. Handling and storage

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| Precautions for safe handling | No special precautions are necessary beyond normal good hygiene practices. See Section 8 of the SDS for additional personal protection advice when handling this product. Observe good industrial hygiene practices. |
| Conditions for safe storage, including any incompatibilities | Store in original packaging. Store away from incompatible materials (see Section 10 of the SDS). |

8. Exposure controls/personal protection

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| Occupational exposure limits | No exposure limits noted for ingredient(s). |
| Biological limit values | No biological exposure limits noted for the ingredient(s). |
| Appropriate engineering controls | General ventilation normally adequate. |
| Individual protection measures, such as personal protective equipment | |
| Eye/face protection | Not normally needed. If contact is likely, safety glasses with side shields are recommended. |
| Skin protection | |
| Hand protection | Not normally needed. For prolonged or repeated skin contact, use suitable protective gloves. Nitrile gloves are recommended. |
| Other | No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact. |
| Respiratory protection | Respiratory protection not required. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Physical state Solid.

Form Pad

Color Brown.

Odor Odorless.

Odor threshold Not available.

pH Not applicable.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not applicable.

Flash point Not available.

Evaporation rate Not applicable.

Flammability (solid, gas) Contains one or more components that will burn if involved in a fire.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapor pressure Not applicable.

Vapor density Not applicable.

Relative density 3.4 (H₂O=1) (77 °F (25 °C))

Solubility(ies)

Solubility (water) Insoluble in water.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature > 482 °F (> 250 °C)

Viscosity Not applicable.

Other information

Bulk density 3400 kg/m³

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products Thermal decomposition or combustion may produce: Carbon oxides. Hydrocarbons. Fumes of metal oxides. Silicon oxide fumes.

11. Toxicological information**Information on likely routes of exposure**

Inhalation Due to the physical form of the product, the ingredients are not expected to present a hazard by inhalation.

Skin contact No adverse effects due to skin contact are expected.

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| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | Not likely, due to the form of the product. |
| Symptoms related to the physical, chemical and toxicological characteristics | Under normal conditions of intended use, this product is not expected to be a health risk. |
| Information on toxicological effects | |
| Acute toxicity | Not expected to be acutely toxic. |
| Skin corrosion/irritation | No adverse effects due to skin contact are expected. |
| Serious eye damage/eye irritation | Direct contact with eyes may cause temporary irritation. |
| Respiratory or skin sensitization | |
| Respiratory sensitization | Not a respiratory sensitizer. |
| Skin sensitization | This product is not expected to cause skin sensitization. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | Not classifiable as to carcinogenicity to humans. |
| IARC Monographs. Overall Evaluation of Carcinogenicity | |
| | Not listed. |
| NTP Report on Carcinogens | |
| | Not listed. |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) | |
| | Not listed. |

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| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. |
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Not relevant, due to the form of the product. |

12. Ecological information

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| Ecotoxicity | Not relevant, due to the form of the product in its manufactured and shipped state. |
| Persistence and degradability | The product contains inorganic compounds which are not biodegradable. |
| Bioaccumulative potential | No data available on bioaccumulation. |
| Mobility in soil | The product is insoluble in water. |
| Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. |

13. Disposal considerations

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| Disposal instructions | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. |
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Waste from residues / unused products | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| Contaminated packaging | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. |

14. Transport information

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|-------------|-----------------------------------|
| DOT | Not regulated as dangerous goods. |
| IATA | Not regulated as dangerous goods. |
| IMDG | Not regulated as dangerous goods. |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is an article pursuant to 29 CFR 1910.1200 and, as such, is not subject to the OSHA Hazard Communication Standard.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Toxic Substances Control Act (TSCA)

This product is considered an article and is not subject to TSCA requirements.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|----------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 08-January-2020

Revision date -

Version # 01

NFPA ratings



References

EPA: AQUIRE database
 IARC Monographs. Overall Evaluation of Carcinogenicity
 NLM: Hazardous Substances Data Base

Disclaimer

Laird cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.