

SAFETY DATA SHEET FOR LLFA[®] TAPE AND LLFA[®] SMOOTH

1. IDENTIFICATION OF SUBSTANCE OR PREPARATION AND THE COMPANY / UNDERTAKING

Product Name: LLFA[®] Tape and LLFA[®] Smooth
Trade Name: Dipoly Siloxane
Product Code: R1-5-8 series
Chemical Name / Synonyms: Silicone Rubber MIL A-A-59163
Most Common Intended Uses: Electrical splice protection, electrical insulation, mechanical seal.
Manufacturers Identification: GTG Engineering, Inc.
PO Box 11182; Southport; North Carolina; 910-457-0068; USA
www.gtgenengineering.com
Distributors Identification: GTG Europe Ltd
Unit 1, Empire Way; Bristol Road; Gloucester; GL2 5HY; UK
Emergency Telephone: USA: +1-800-343-4062

2. COMPOSITION / INFORMATION OF INGREDIENTS

Substances presenting a Health or Environmental hazard within the meaning of the Chemicals (Hazard Information & Packaging) Regulations 1994 as amended.

(Typical Values – Not Specifications)

| Hazardous Components | Chemical Name | CAS # | % | |
|----------------------|----------------------------------|-------------|-----|---------------|
| | Octamethylcyclo - tetrasiloxane | 556-67-2 | <2 | |
| | Boric Acid | 10043-35-3 | <1 | |
| | Amorphous Fumed Silica | 112945-52-5 | <40 | **Dust Hazard |
| Perkadox PD-50S-PS-A | Di(2,4-dichlorobenzoyl) peroxide | 133-14-2 | <2 | |

ALL OTHER INGREDIENTS ARE NON HAZARDOUS AND ARE NOT LISTED SINCE PROPRIETARY.

** This material is encapsulated in a polymeric binder which eliminates airborne exposure to Dust Hazard

3. HAZARDS IDENTIFICATION

Emergency Overview This product is a stable, chemically inert, opaque rubber material that has no known health effects in its final state.
Primary Route of Exposure Inhalation ◦ Eye Contact ◦ Skin Contact ◦ Ingestion
Threshold Limit Value N/A
Potential Acute Health Effects None Known
Potential Chronic Health Effects None Known

Inhalation of airborne contamination generated during heat cure, or combustion should be avoided.

4. FIRST AID MEASURES

Eye Contact: Eye contact is not expected to occur during normal use of final product. No adverse health effects are expected from eye contact.
Skin Contact: No adverse health effects are expected from skin contact. Contact with skin during final product use is not expected to result in significant irritation.
Ingestion: Due to the physical state of this material, ingestion is unlikely to occur. No adverse health effects are expected from swallowing of the final product.
Inhalation: This product may have a characteristic odour; however, no adverse health effects are anticipated. Health effects from inhalation are not expected unless the product is in combustion. If products of combustion are inhaled, remove to fresh air. Seek medical attention if respiratory irritation occurs, or breathing becomes difficult.

5. FIRE FIGHTING MEASURES

| <i>Flash Point</i> | <i>Units</i> | <i>Method</i> | <i>Flammable Limits</i> | <i>LEL</i> | <i>UEL</i> |
|--------------------|--------------|---------------|-------------------------|------------|------------|
| N/A | N/A | N/A | N/A | N/A | N/A |

Extinguishing Media: Use standard fire fighting techniques to extinguish fires involving this material. DRY CHEMICAL, CARBON DIOXIDE, FINE WATER SPRAY.

Special Fire-Fighting Procedures: As in any fire, prevent human exposure to fire, smoke fumes, or products of combustion. Evacuate non-essential personnel from fire area. Fire fighters should wear full face, self contained breathing apparatus.

Unusual Fire and Explosion Hazards: None Known

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled:

Remove material from floor. Dispose of material if contaminated.

Waste disposal method:

Dispose of in accordance with all local, state, federal and/or provincial regulations.

7. HANDLING & STORAGE

Precautions to be taken in handling and storing:

No required handling or storage pre-cautions. Ideally, store in the re-sealable bag provided. Recommend storage in a cool, dry, well ventilated area. Apply stock rotation.

Engineering Controls

As dictated by use process.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|-----------------------------------|---|
| Respiratory Protection | Not normally required except for products of combustion. |
| Eye & Face Protection | Safety glasses or normal departmental safety requirements. |
| Protective Gloves | Not normally required. |
| Other Protective Equipment | Use good personal hygiene. |
| Ventilation | Not normally required. Local ventilation is recommended for high temperature processes. |

9. PHYSICAL DATA

| | | | |
|---------------------------------|---------------|--------------|-----|
| Boiling Point | N/A | Units | N/A |
| Vapour Pressure (mm Hg.) | N/A | | |
| Vapour Density (air=1) | N/A | | |
| Solubility In Water | Not Soluble | | |
| Appearance | Rubbery Solid | | |
| Specific Gravity(H2O=1) | 1.178 | | |
| Melting Point | N/A | Units | N/A |
| Evaporation Rate | N/A | | |
| % Volatiles (by volume) | N/A | | |
| Odour | Sweet Odour | | |

10. STABILITY & REACTIVITY DATA

| | |
|---|--|
| Conditions Causing Instability | Product is stable |
| Incompatibility (materials to avoid) | None known. |
| Hazardous Decomposition Products | Carbon Monoxide, Carbon Dioxide, Silicon Dioxide |
| Hazardous Polymerization | Will Not Occur |
| Special Sensitivity | None |

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: This material is not considered a carcinogen by IARC or NTP and is not regulated as a carcinogen by OSHA.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Testing performed on the product shows compliance to BS6920: Part1: 2000 - "Suitability of non-metallic products for use in direct contact with water intended for human consumption with regard to their effect on the water." The results show that it can be fully submerged up to 85°C with no effect on the quality of the water.

These test results indicate that there is no aquatic toxicity nor is there any risk to environmentally relevant organisms.

MOBILITY

There is no potential for the substance, if released to the environment, to transport to groundwater or far from the site of release.

PERSISTENCE AND DEGRADABILITY

The degradation half life of the product is not known.

Test results from the NFX 70-100 "Analysis of Gaseous Effluents Test" indicate a very low C.I.T (conventional index of toxicity) value: 5.20. If the product is incinerated, the resultant gaseous components are of low risk to the environment.

BIOACCUMULATIVE POTENTIAL

There is no potential of the substance to accumulate in biota and pass through the food chain.

K_{ow} N/A

Biological Concentration Factor N/A

OTHER ADVERSE EFFECTS

There is no potential of adverse environmental effects from the use of the substance. It has no ozone depletion potential. It has no photochemical ozone creation potential. It does not have the potential to accelerate global warming.

13. DISPOSAL CONSIDERATIONS

RCRA Hazard Class (40 CFR 261)

When a decision is made to discard this material, as received, is it classified as a hazardous waste? **NO**

14. TRANSPORTATION INFORMATION

| | |
|---|---|
| DOT Road Shipment Information (49 CFR 172.101) | Not subject to DOT. |
| Ocean Shipment (IMDG) | Not subject to IMDG code. |
| Air Shipment (IATA) | Not subject to IATA regulations. |
| EPA Hazard Waste: | N/A |
| OSHA Hazard Class: | N/A |
| WHMIS Classification: | No known WHMIS class |
| NFPA/HMIS Classification: | HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0 |

15. REGULATORY INFORMATION

CERCLA

The Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification to the National Response Centre for releases of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQs) in 40 CFR 302.4 (for CERCLA 102).

Components present in this product at a level which could require reporting under the statute are:

| Chemical Name | CAS # | Maximum Concentration (Wt. %) |
|--|--------------|--------------------------------------|
| Silica, amorphous, fumed, crystalline-free | 112945-52-5 | 40% |

SARA Title III, section 311/312

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311, and 312).

Components present in this product at a level which could require reporting under the statute are:

| Chemical Name | CAS # | Maximum Concentration (Wt. %) |
|--|--------------|--------------------------------------|
| Silica, amorphous, fumed, crystalline-free | 112945-52-5 | 40% |

SARA Title III, section 313

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313).

Components present in this product at a level which could require reporting under the statute are:

| Chemical Name | CAS # | Maximum Concentration (Wt. %) |
|--|--------------|--------------------------------------|
| Silica, amorphous, fumed, crystalline-free | 112945-52-5 | 40% |

TSCA

The components of this mixture are listed in the Toxic Substance Control Act Inventory of Chemical Substances.

This product does not contain any chemicals that would require export notification under Section 12(b) of the TSCA regulation.

16. OTHER INFORMATION

The information contained in this safety data sheet is provided in accordance with the requirements of the Chemicals (Hazard Information & Packaging) Regulations. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of issues of the product are outside the suppliers control the user is responsible for ensuring that the requirements of relevant legislation are complied with. TP-21

The information contained in this Safety Data Sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Further Information and relevant advice can be found in:-

The Control of Substances Hazardous to Health Regulations 1994 (SI 1994:3246)

The Manual Handling Operations Regulations 1992 (SI 1992:2793)

Storage of Packaged Dangerous Substances HS (G) 71

The Environmental Protection (Duty of Care) Regulations 1992 (SI 1988: 2839)

DISCLAIMER

GTG Engineering, Inc. believes, to the best of its knowledge, information, and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials and make no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and data to comply with all applicable international, federal, state, and local laws and regulations.