



SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER: LSC-100M

Chemical Name: Gamma-Mercaptopropyltriethoxysilane

Recommended Use: Rubber Additive

Manufactured for and supplied by:

Supplier: Harwick Standard Distribution Corporation

Supplier Address: 60 S. Seiberling Street, Akron, OH 44305

Contact: Health, Safety & Environment

Telephone: 330-798-9300

Website: www.harwickstandard.com

SECTION 2 – HAZARD(S) IDENTIFICATION

Classification of the Substance or Mixture:

Flammable Liquids, Category 4

GHS Label Elements:

Hazard symbol: None
Signal word: Warning

Hazard Statements:

Combustible liquid

Precautionary Statements:

Prevention: Wear protective gloves.
Wear eye or face protection.
Keep away from flames and hot surfaces-No smoking.

Response: Not applicable.

Storage: Store in a well-ventilated place.
Keep cool.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.



Hazard(s) not otherwise classified (HNOC): Additional ethanol may be formed by reaction with moisture.

HMIS Rating: HEALTH 1 FLAMMABILITY 2 REACTIVITY 1

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Substance/mixture: Substance

<u>Chemical Identity</u>	<u>CAS Number</u>
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Gamma-Mercaptopropyltriethoxysilane	14814-09-6
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4 – FIRST AID MEASURES

Eye contact: 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 10 minutes. Get medical attention if irritation occurs.

Inhalation: Remove person to fresh air and keep at rest in a position comfortable for breathing. If not breathing, breathing is irregular or respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing and clean shoes thoroughly before reuse.

Ingestion: Rinse out mouth with water. Remove person to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband.

Indication of immediate medical attention and special treatment needed: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.



SECTION 5 – FIRE FIGHTING MEASURES

Suitable extinguishing method: In case of fire, use water spray (fog), foam, dry chemical or carbon dioxide (CO₂)

Unsuitable extinguishing method: Do not use water jet.

Specific hazards arising from chemical: Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products:

Decomposition products may include the following materials:

Carbon dioxide

Carbon monoxide

Sulfur oxides

Halogenated compounds

Metal oxide/oxides

Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

Special firefighting precautions for firefighters: Promptly isolate scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special Firefighting equipment/instructions: Fire-fighters should wear full protective clothing and NIOSH/MSHA approved self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Methods and materials for containment and cleaning up:

For large spills: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or



diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

For small spills: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Environmental precautions:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Keep in original container tightly closed when not in use. Store and use away from heat, sparks, open flame or any ignition source. Use explosion-proof electrical equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in segregated, approved area in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits: None

Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Engineering controls should keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof equipment.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following



- protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection:**
- Hand protection:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection:** Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard (NIOSH/MSHA), provided in accordance with OSHA regulations if a risk assessment indicates this is necessary, if exposure limits are exceeded or respiratory irritation is experienced. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

General hygiene considerations: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Colorless liquid
Odor:	Ester-like
pH:	Not available
Boiling Point/Range:	240°C (464°F) Mixture
Melting Point/Range:	<0°C (32°F)
Flash Point (°C):	88°C (190°F) Tag Closed Cup
Evaporation Rate:	<1 (n-Butyl acetate=1)
Flammable/Explosion Limits:	
Lower:	Not available
Upper:	Not available
Vapor Pressure:	<1.33hPa @20°C
Vapor Density:	>1 (Air=1)
Relative Density:	Not available
Density:	0.9900 g/cm ³ (DIN 51757)
Solubility:	Not available
Solubility (in Water):	Reactive



Partition Coefficient: (n-octanol/water)	Not available
Auto-ignition Temperature:	Not available
SADT:	Not available
Viscosity:	Not available

SECTION 10 - STABILITY & REACTIVITY

Reactivity: Stable under normal conditions.

Chemical stability: Material is stable under recommended storage and handling conditions.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials: Incompatible with oxidizing agents. Reacts with water forming ethanol.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity: Not determined

Irritation/Corrosion:

Skin: Not determined

Eyes: Not determined

Respiratory: Not determined

Sensitization:

Skin: Not determined

Respiratory: Not determined

Germ cell mutagenicity: Not determined

Carcinogenicity: Not determined

Reproductive toxicity: Not determined

Teratogenicity: Not determined



Specific target organ toxicity-single exposure: Not available

Specific target organ toxicity-repeated exposure: Not available

Aspiration hazard: Not available.

Information on likely routes of exposure: Not available

Potential acute health effects:

Inhalation: No known significant effects or critical hazards.
Skin Contact: No known significant effects or critical hazards.
Eye Contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation: No specific data
Skin Contact: No specific data
Eye Contact: No specific data
Ingestion: No specific data

Delayed and immediate effects and also chronic effects from short and long term exposure:

Short term exposure:

Potential immediate effects: Not available
Potential delayed effects: Not available

Long term exposure:

Potential immediate effects: Not available
Potential delayed effects: Not available

Potential chronic health effects: Not determined

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Components	Result	Species	Exposure
LSC-100M	Acute LC50 439 mg/l semi-static test	Measured Fish-Brachydaniorerio	96 h

Persistence and degradability: Not available

Bioaccumulative potential: Not available

Mobility in soil: No data available

Other adverse effects: No known significant effects or critical hazards.



SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal methods/instructions: 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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14 - TRANSPORTATION INFORMATION

U.S. DOT Classification:

DOT Shipping Name: Combustible liquid, n.o.s.
DOT Hazard Class: CBL
DOT Label: NON
UN/NA Number: NA 1993
Packing Group: III

This product must be classified as a Combustible liquid, n.o.s. only when shipped in containers >450 L (119 gallons).

SECTION 15 - REGULATORY INFORMATION

U.S.:

United States TSCA Inventory: All components are listed or exempt.

SARA 311/312: Fire hazard

California Proposition 65: Not listed.

SECTION 16 - OTHER INFORMATION

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Revision Information: GHS Format

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