

CHEMTRONICS®

Technical Data Sheet

HD Silicone™ Lubricant

TDS # 1623

PRODUCT DESCRIPTION

HD Silicone Lubricant is specifically formulated to provide severe environment lubrication with a clear, colorless, and odorless protective film. This multi-use silicone lubricant is registered with the NSF as an H1 lubricant for use in food processing and food packaging applications where incidental contact with food may occur. HD Silicone cleans, displaces moisture, protects and reduces friction with one easy step.

- Lubricates, waterproofs, and protects in one application
- NSF H1 Registered
- Ideal for use on plastics, rubber, elastomers and gaskets
- Stable from -40° F to 500° F
- Reduces sliding friction between dissimilar materials
- Odorless, tasteless, nonconductive and nonstaining
- Contains no chlorinated solvents
- Ozone safe

TYPICAL APPLICATIONS

HD Silicone Lubricant effectively cleans and lubricates:

- Electrical and electronic contacts, controllers
- Potentiometers and rheostats, solenoids
- Electrical equipment, test equipment
- Conveyers, rails, chutes – food processing and handling equipment
- Tools, rubber seals and boots, screw and gear drives, plastic gears and cogs
- Chains, cables, pulleys, motors
- Bearings, chains, cables, pulleys and gear drives
- Ideal as a lubricant for metal-to-nonmetal and plastic-to-plastic applications

TYPICAL PRODUCT DATA AND PHYSICAL PROPERTIES

Boiling Point	141°F (Initial)
Evaporation Rate (butyl acetate=1)	>1
Flash Point (TCC)	-20.0°F
Specific Gravity	0.68
Appearance	Clear, colorless liquid
Odor	Mild, ethereal
Surface Tension (dynes/cm @21.6°C)	18.3
Solubility in Water	Negligible
Dielectric Breakdown (ASTM D-877)	40 kV
KB value	50
Shelflife	5 years
NSF-Registered H1	#139465

COMPATIBILITY

HD Silicone Lubricant is generally compatible with most materials used in electrical and electronic assemblies. As with any chemical, compatibility should be checked on a non-critical area prior to use.

ENVIRONMENTAL IMPACT DATA

<u>Material</u>	<u>Compatibility</u>
ABS	Excellent
Buna-N	Excellent
EPDM	Excellent
Graphite	Excellent
HDPE	Excellent
LDPE	Excellent
Lexan™	Excellent
Neoprene	Excellent
Nylon™ 66	Excellent
Cross-Linked PE	Excellent
Polypropylene	Excellent
Polystyrene	Excellent
PVC	Excellent
Silicone Rubber	Excellent
Teflon™	Excellent

ENVIRONMENTAL IMPACT DATA

CFC	0.0%	VOC	92.0%
HCFC-225	0.0%	nPB	0.0%
HCFC- 141b	0.0%	HFC	0.0%

CFC, HCFC-225, HCFC-141b, VOC, HFC, and nPB percentages shown are the content by weight.

NOTE:

This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly. ITW CHEMTRONICS® does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

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USAGE INSTRUCTIONS

For commercial use only.

Read MSDS carefully prior to use.

Shake before using. Spray 4-6 inches from surface to be lubricated or protected. For precise application use attached extension tube.

AVAILABILITY

ES1623 10 oz. Aerosol

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Information: 800-TECH-401

Product Identification**HD SILICONE LUBRICANT**

Product Code: ES1623

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Wt. % Range
Isohexane	107-83-5	40.0-50.0
n-hexane	110-54-3	0.1-3.0
Dimethyl polysiloxane	63148-62-9	1.0-5.0
1,1-difluoroethane	75-37-6	40.0-50.0

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview: Clear, colorless liquid with mild hydrocarbon solvent. This product is extremely flammable. Liquid will irritate eyes and skin under repeated or prolonged exposure. Breathing high concentrations of product may produce drowsiness and a headache.

Potential Health Effects:

Eyes: Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation.

Skin: Contact causes skin irritation.

Ingestion: Harmful if swallowed. Irritating to the mouth, throat and stomach. May cause vomiting. **Inhalation:** Harmful if inhaled. High concentrations in immediate area can displace oxygen and cause dizziness, unconsciousness and even death with longer exposure. Keep people away from such vapors without self-contained breathing apparatus. **Pre-Existing Medical Conditions Aggravated by Exposure:** Heart, lung, skin, eye.

SECTION 4: FIRST AID MEASURES

Eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel if irritation develops or persists.

Skin: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.

Ingestion: If swallowed, do not induce vomiting. Keep head below knees to minimize chance of aspirating material into the lungs. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: -20 F (-29C) (isohexane) **LEL/UEL:** 1.2/7.0 (% by volume in air)

Extinguishing Media: Use alcohol foam, carbon dioxide or water spray when fighting fires involving this material.

Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus (pressure demand, MSHA/NIOSH approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Large Spills: Shut off leak if possible and safe to do so. Wear self-contained breathing apparatus and appropriate personal protective equipment. Absorb spill with inert material (i.e. dry sand or earth), then place in a chemical waste container for proper disposal. Do not flush to sewer. Avoid runoff into storm sewers and ditches that lead to waterways. **Small Spills:** Absorb spill with inert material (i.e. dry sand or earth), then place in a chemical waste container for proper disposal.

SECTION 7: HANDLING AND STORAGE

Avoid prolonged or repeated contact with skin, eyes or clothing. Wash hands before eating. Use with adequate ventilation. Avoid breathing product vapor. Do not reuse this container. Store in a cool dry place, away from heat, sparks or flames. Keep container tightly closed when not in use. Do not store in direct sunlight.

KEEP OUT OF REACH OF CHILDREN.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines:**

CHEMICAL NAME	ACGIH TLV	OSHA PEL	STEL / OTHER
Isohexane	500 ppm	NA	1000 ppm
n-Hexane	50 ppm	500 ppm	NA
1,1-difluoroethane	NA	NA	1,000 ppm (DuPont)

Work/Hygienic Practices: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. If vapor concentration exceeds TLV, use NIOSH approved organic vapor cartridge respirator. Wear safety glasses with side shields or goggles and rubber or other chemically resistant gloves when handling this material.

NFPA and HMIS Codes:

	NFPA	HMIS
Health	1	1
Flammability	3	3
Reactivity	0	0
Personal Protection	-	B

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIESPhysical State: Clear, colorless liquidOdor: Mild hydrocarbon solventpH: NAVapor Pressure: 239 mmHg @ 68F (liquid)Percent Volatile: 97%Solubility in Water: NegligibleSpecific Gravity: 0.67 @ 68FEvaporation Rate: <1 (Butyl acetate=1)Vapor Density: 3 (isohexanes)Boiling Point: 122° F (50°C)**SECTION 10: STABILITY AND REACTIVITY**Stability: This product is stable. Conditions to Avoid: Do not spray near open flames, red hot surfaces or other sources of ignition.Incompatibility: Do not mix powdered alkali and alkaline earth metals or strong oxidizing agents.Products of Decomposition: Thermal decomposition may release carbon monoxide, carbon dioxide and incompletely burned hydrocarbons.Hazardous Polymerization: Will not occur. Conditions to avoid: NA**SECTION 11: TOXICOLOGICAL INFORMATION**Inhalation:

1,1-difluoroethane * Rat ALC 383,000 ppm/4hrs

Skin:

Not available

*Information from Dupont.

Cancer Information: No ingredients listed as human carcinogens by NTP or IARC

Reproductive effects: none

Teratogenic effects: none

Mutagenic effects: none

Ingestion:

1,1-difluoroethane * Rat ALD >1500 mg/kg

Eyes:

Mild irritant

SECTION 12: ECOLOGICAL INFORMATION

Avoid runoff into storm sewers and ditches which lead to waterways. Water runoff can cause environmental damage.

REPORTINGUS regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is: **1-800-424-8802****SECTION 13: DISPOSAL CONSIDERATIONS**

Dispose of in accordance with all federal, state and local regulations. Water runoff can cause environmental damage.

SECTION 14: TRANSPORTATION INFORMATION

Proper Shipping Name	UN Number	Class	Sub. Risk	Pkg. Group	Hazard Label	Pkg. Instr.	Max. Quantity
<u>Air:</u> Aerosols flammable	UN 1950	2.1	NA	NA	Flammable Gas	203	75/150 kg
<u>Ground:</u> Consumer Commodity ORM-D	NA	ORM-D	NA	NA	ORM-D	Pkg. Auth.	173.306

SECTION 15: REGULATORY INFORMATION**SECTION 313 SUPPLIER NOTIFICATION**

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR372).

n-Hexane CAS# 110-54-3 0.1-3.0%

This information should be included on all MSDSs copied and distributed for this material.

TOXIC SUBSTANCES CONTROL ACT (TSCA). All ingredients of this product are listed on the TSCA Inventory.WHMIS: Class A; Class B5; Class D2B

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16: OTHER INFORMATION

Product is a Level 3 aerosol. Do not puncture or incinerate containers. Normal ventilation for standard manufacturing practices is usually adequate. Local exhaust should be used when large amounts are released.

To the best of our knowledge, the information contained herein is accurate. However, all materials may present unknown hazards and should be used with caution. In particular, improper use of our products and their inappropriate combination with other products and substances may produce harmful results which cannot be anticipated. Final determination of the suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist.