

SAFETY DATA SHEET

Date Issued : 9/22/2011

MSDS No : F-3000-11

Date Revised : 2/13/2013

Revision No : 3

KJLC 705

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: KJLC 705**GENERAL USE:** Vacuum Diffusion Pump Fluid**PRODUCT FORMULATION NAME:** 705 Diffusion Pump Fluid**ALTERNATE TRADE NAME(S) / PRODUCT CODE(S):** 705BB, 705CA, 705CP**MANUFACTURER**

Kurt J Lesker Company

United States

1925 Route 51

Jefferson Hills, PA 15025

Customer Service: 412-387-9200**E-Mail:** msds@lesker.com

Kurt J Lesker Company LTD

United Kingdom

15-16 Burgess Road

Hastings, East Sussex, TN35 4NR

England

Customer Service: +44 (0) 1424 458100**24 HR. EMERGENCY TELEPHONE NUMBERS**

24-Hour Emergency Response provided by

3E Global Incident Response Hotline

When calling, refer to Kurt J Lesker Company

Global Response Access Code: 333594

North America [USA, Canada, Mexico]: 1-866-519-4752

Mainland China: (+86) 4001 2001 74

Europe: {int'l call prefix}-1-760-476-3961

Asia Pacific: {int'l call prefix}-1-760-476-3960

Middle East & Africa: {int'l call prefix}-1-760-476-3959

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS**Environmental:**

Chronic Hazards to the Aquatic Environment, Category 4

GHS LABEL**HAZARD STATEMENTS**

H413: May cause long lasting harmful effects to aquatic life.

PRECAUTIONARY STATEMENT(S)**Response:**

P273: Avoid release to the environment.

Disposal:

7794ONTN: P501: Dispose of contents/container in accordance with local/regional/national/international regulations. segregated storage. Dispose of according to all applicable regulations.

EMERGENCY OVERVIEW**PHYSICAL APPEARANCE:** Colorless or pale yellow liquid**IMMEDIATE CONCERNS:** This product is not hazardous under conditions of normal use. Thermal decomposition of this product will generate carbon monoxide, carbon dioxide, and other toxic materials. When fighting fires, use full turnout gear and self contained breathing apparatus in positive pressure mode. Avoid

breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin or clothing. Do not flush to sewer. Avoid runoff into storm sewers and ditches which lead to waterways.

POTENTIAL HEALTH EFFECTS

EYES: May cause mild transient irritation but there is no evidence of long term harmful effects from available information.

SKIN: No adverse effects are expected.

SKIN ABSORPTION: A single, prolonged exposure is not likely to result in the material being absorbed through skin in harmful amount.

INGESTION: Low ingestion hazard in normal use.

INHALATION: Avoid breathing vapors or mists. Poses little or no immediate hazard.

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: Not Available

TERATOGENIC EFFECTS: Not Available

CARCINOGENICITY: Not listed as a human carcinogen (IARC: International Agency for Research on Cancer, NTP: US National Toxicology Program, ACIGH: American Conference of Governmental Industrial Hygienists)

MUTAGENICITY: Not Available

MEDICAL CONDITIONS AGGRAVATED: Not Available

TARGET ORGAN STATEMENT: Inhalation, ingestion, eye contact, or skin contact.

IRRITANCY: Non irritating

SENSITIZATION: Non sensitizing

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
Trimethylpentaphenyl trisiloxane	> 50	3390-61-2
Tetraphenyldimethyldisiloxane	> 10	807-28-3
Alkyl phenyl siloxane	> 15	6904-66-1

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

SKIN: Not normally needed.

INGESTION: Not normally needed.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: May cause mild transient irritation but there is no evidence of long term harmful effects from available information.

SKIN: None expected.

SKIN ABSORPTION: None expected.

INGESTION: None expected.

INHALATION: None expected.

ACUTE TOXICITY: Poses little or no immediate hazard.

CHRONIC EFFECTS: No adverse effects are normally expected.

NOTES TO PHYSICIAN: Treat symptomatically

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use dry chemical, approved foam, carbon dioxide, or water fog. Avoid using water spray which may spread the fire. Carbon dioxide or inert gas may displace oxygen. Observe caution when using in a confined space.

HAZARDOUS COMBUSTION PRODUCTS: Thermal decomposition during fire or very high heat may evolve carbon oxides, silicon dioxide, and formaldehyde.

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

HAZARDOUS DECOMPOSITION PRODUCTS: Traces of benzene (carcinogen) may form if heated above 300F (149C).

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Clean up spills immediately, observing precautions in Protective Equipment section.

LARGE SPILL: Isolate hazard area. Keep unnecessary and unprotected personnel from entering. **LARGE SPILLS:** Shut off leak if safe to do so. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. US 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 (800) 424-8802.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

GENERAL PROCEDURES: Clean up spills immediately, observing precautions in Protective Equipment section. Do not flush to sewer. Absorb spill with inert material, oil dry or spill absorbants. Collect contaminated media for proper disposal according to all applicable regulations. It may be possible to vacuum and reclaim the spilled liquid.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: This product is not hazardous under conditions of normal use. If using this product at elevated temperatures Use only in a well ventilated area. Traces of benzene (carcinogen) may form if heated above 300F (149C). Review the OSHA benzene regulation for detailed information on safe handling requirements. Avoid contact with eyes.

HANDLING: Keep away from heat and flame. Keep container closed when not in use. Remove contaminated clothing and wash before reuse. Wash hands before eating and wash before reuse. Wash thoroughly after handling.

STORAGE: S3/9/14: Keep in a cool, well-ventilated place away from... Oxidizing materials Do not reuse this container. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Good general ventilation should be sufficient to control airborne levels.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses.

SKIN: Not normally needed.

RESPIRATORY: Not normally needed. If ventilation is inadequate and this material is handled at elevated temperatures or dusts/fumes/mists are generated a NIOSH/MSHA approved air purifying respirator with a manufacturers approved cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

WORK HYGIENIC PRACTICES: Practice good chemical hygiene during and after use.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

COMMENTS: There are no established workplace exposure limits for components of this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: liquid

ODOR: None

COLOR: Pale Yellow or Clear

pH: NA = Not Applicable

PERCENT VOLATILE: Not Available

FLASH POINT AND METHOD: > 101°C (214°F) (Cleveland Open Cup ASTM D92)

FLAMMABLE LIMITS: Not Established

AUTOIGNITION TEMPERATURE: Not Established

VAPOR PRESSURE: 1E(-6) at 25C

VAPOR DENSITY: Not Available

BOILING POINT: Not Available

FREEZING POINT: Not Available

MELTING POINT: Not Available

POUR POINT: Not Available

SOLUBILITY IN WATER: Not Available

SPECIFIC GRAVITY: ~ 1.097

VISCOSITY #1: 180 cSt at 25°C

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

CONDITIONS TO AVOID: Not Established

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products may include: Silica, Carbon oxides, formaldehyde

INCOMPATIBLE MATERIALS: Oxidizing materials

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD₅₀: > 2000 mg/kg (dermal, rabbit)

Notes: No adverse effects are expected.

SKIN ABSORPTION: A single, prolonged exposure is not likely to result in the material being absorbed through skin in harmful amount.

ORAL LD₅₀: > 2000 mg/kg (oral, rat)

Notes: No adverse effects are expected.

INHALATION LC₅₀: No adverse effects are expected.

EYE EFFECTS: May cause mild transient irritation but there is no evidence of long term harmful effects from available information.

SKIN EFFECTS: No adverse effects are expected.

CHRONIC: Not Available

CARCINOGENICITY

IARC: Not listed as a human carcinogen

NTP: Not listed as a human carcinogen

OSHA: Not listed as a human carcinogen

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Avoid release to the environment. Avoid runoff into storm sewers and ditches which lead to waterways.

ECOTOXICOLOGICAL INFORMATION: Not fully known.

BIOACCUMULATION/ACCUMULATION: This product is not expected to bioaccumulate.

DISTRIBUTION: Siloxanes are removed from water by sedimentation or binding to sewage sludge. In soil, siloxanes are degraded.

AQUATIC TOXICITY (ACUTE): Not Available

CHEMICAL FATE INFORMATION: Not fully known.

GENERAL COMMENTS: Due to the lack of available data, this product has been categorized under GHS as a category 4 chronic aquatic hazard.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Recycle or Dispose of according to applicable federal, state, provincial, and local regulations.

EMPTY CONTAINER: "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT,

FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

COMMENTS: Hazard characteristics and regulatory waste stream classification can change with product use. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not Regulated

REPORTABLE QUANTITY (RQ) UNDER CERCLA: A reportable quantity (RQ) has not been established for this material

MARINE POLLUTANT #1: Not a DOT 'Marine Pollutant' per 49CFR 171.8

ROAD AND RAIL (ADR/RID)

HAZARD CLASS: Not Regulated

AIR (ICAO/IATA)

SHIPPING NAME: Not Regulated

VESSEL (IMO/IMDG)

SHIPPING NAME: Not Regulated

CANADA TRANSPORT OF DANGEROUS GOODS

SHIPPING NAME: Not Regulated

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: None

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** No **CHRONIC:** No

313 REPORTABLE INGREDIENTS: None

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: None

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: NA = Not Applicable

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All components of this product are included in inventory, exempt, or notified

CLEAN AIR ACT

40 CFR PART 68---RISK MANAGEMENT FOR CHEMICAL ACCIDENT RELEASE PREVENTION: NA = Not Applicable

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: NA = Not

Applicable

REGULATIONS**STATE REGULATIONS:**

The following components appear in one or more of the following states hazardous substances lists

Component	CAS	CA	MA	NJ	PA
Tetramethyltetraphenyl trisiloxane	3982-82-9	No	No	Yes	Yes
Tetraphenyldimethyldisiloxane	807-28-3	No	No	Yes	No
Alkyl phenyl siloxane	6904-66-1	No	No	Yes	No

CALIFORNIA PROPOSITION 65: This product is not known to contain any components for which the State of California has found to cause cancer, birth defects or other reproductive harm.

RCRA STATUS: Not listed or controlled

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): Not listed or controlled

DOMESTIC SUBSTANCE LIST (INVENTORY): All components of this product are included in inventory, exempt, or notified

MEXICO Not Available

GENERAL COMMENTS: All components of this product are included in inventory, exempt, or notified: USA TSCA, European EINECS, Australian AICS, Canadian DSL, China IECSC, Japanese ENCS, Korean KECL, Philippines PICCS

16. OTHER INFORMATION

APPROVED BY: EHS DEPT

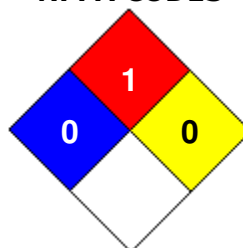
PREPARED BY: EWR

INFORMATION CONTACT: fluids@lesker.com

REVISION SUMMARY: This MSDS replaces the 3/12/2012 MSDS.

HMIS RATING

HEALTH		0
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION		B

NFPA CODES**MANUFACTURER DISCLAIMER:**

Kurt J. Lesker Company ("KJLC") believes the information contained in this Material Safety Data Sheet is accurate as of the "Date of Last Revision" specified. The information relates only to typical properties of the product. Do not use the information for product performance or specification purposes. The information is for use by technically skilled persons at their own risk. KJLC MAKES NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO THE PRODUCT OR THE INFORMATION. The information may not be valid for product use in combination with any other product or material or in any process. KJLC expressly disclaims any liability arising from any use of the product or any reliance on the information. Do not treat the information (a) as assurance that use of the product will not infringe patent or other rights or (b) as a license or grant of patent or other property rights. "KJLC" means KJLC and each of its subsidiaries.