SAFETY DATA SHEET

Date Issued : 6/8/2012
MSDS No : F-5000-005
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Revision No : 2

KL-5 Vacseal Leak Sealant (Liquid)

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: KL-5 Vacseal Leak Sealant (Liquid)
GENERAL USE: Sealing leaks in vacuum systems
ALTERNATE TRADE NAME(S) / PRODUCT CODE(S): KL-5-3B, KL-5-5B, KL-5-8P, KL-5-K, KL-5-Q

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
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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

Health:

Carcinogenicity, Category 1B
Mutagenicity, Category 2
Acute Toxicity (Inhalation), Category 4
Acute Toxicity (Dermal), Category 4
Eye Irritation, Category 2
Skin Irritation, Category 2
Target Organ Toxicity (Single exposure), Category 3

Environmental:

Acute Hazards to the Aquatic Environment, Category 1
Chronic Hazards to the Aquatic Environment, Category 3

Physical:

Flammable Liquids, Category 3

GHS LABEL

Flame | Environment | Health hazard | Exclamation mark

HAZARD STATEMENTS

H226: Flammable liquid and vapour.
H350: May cause cancer .
H341: Suspected of causing genetic defects .
H332: Harmful if inhaled.
H312: Harmful in contact with skin.
H319: Causes serious eye irritation.
H315: Causes skin irritation.
H335: May cause respiratory irritation.
H410: Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENT(S)

Prevention:

P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P273: Avoid release to the environment.

Response:

P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P391: Collect spillage.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Colorless or pale yellow liquid

IMMEDIATE CONCERNS: Flammable liquid and vapor.

POTENTIAL HEALTH EFFECTS

EYES: Causes eye irritation.

SKIN: Causes skin irritation.

SKIN ABSORPTION: Harmful if absorbed through the skin.

INGESTION: May be harmful if swallowed.

INHALATION: Harmful if inhaled. Causes respiratory tract irritation.

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: Not Available

CARCINOGENICITY: IARC Group 2A - Probably carcinogenic to humans.

MUTAGENICITY: Suspected of causing genetic defects .

ROUTES OF ENTRY: Inhalation, ingestion, eye contact, or skin contact.

TARGET ORGAN STATEMENT: Liver, Central nervous system, Heart

IRRITANCY: May cause irritation of skin, eyes, and respiratory tract.

PHYSICAL HAZARDS: Flammable liquid and vapor.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Trichloroethylene	30 - 60	79-01-6
Xylenes (o-,m-,p- Isomers)	15 - 30	1330-20-7
Ethylbenzene	5 - 15	100-41-1

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

INGESTION: If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

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

INHALATION: Headache, dizziness

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Flammable liquid and vapour.

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

EXPLOSION HAZARDS: Flammable Liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point.

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: Hydrogen chloride.

6. ACCIDENTAL RELEASE MEASURES

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

LARGE SPILL: Collect spilled material in appropriate container. Spill may be reportable . Consult section 15 for Reportable Quantities.

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: Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Eliminate all ignition sources if safe to do so. Avoid formation of dust. Provide appropriate exhaust ventilation where dust is formed. Avoid breathing (dust, vapor, mist, gas). Practice good chemical hygiene during and after use. Avoid release to the environment.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: To avoid risks to human health and the environment, comply with the instructions for use.

HANDLING: Keep away from heat and flame. Avoid formation of dust. Provide appropriate exhaust ventilation where dust is formed. Do not breath (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing. Wash

thoroughly after handling.

STORAGE: Keep container closed when not in use. Store in a cool dry place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields (or goggles) and a face shield.

SKIN: Wear protective gloves/protective clothing/eye protection/face protection. Wash contaminated clothing before reuse.

RESPIRATORY: 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.

COMMENTS:

COMPONENT EXPOSURE LIMITS

Component	Location, Type	Value (ppm)
Trichloroethylene	NIOSH REL TWA	25
	OSHA OEL TWA	100
	OSHA OEL STEL	200
	Canada - AB, BC, ON TWA	10
	Canada - AB, BC, ON STEL	25
	Canada - PQ TWA	50
	Canada - PQ STEL	200
	Europe TWA	10
	Austria, Switzerland TWA	50
	Austria STEL	250
	Belgium, Sweden STEL	25
	Denmark STEL	20
	France TWA	75
	France STEL	200
	Germany TWA	6
	Australia, Japan TWA	10
	Australia STEL	40
	New Zealand, Singapore TWA	50
	New Zealand STEL	200
	Singapore STEL	100
	UK WEL TWA	100
	UK WEL STEL	150

Component	Location, Type	Value (ppm)
Xylenes	NIOSH REL TWA	100
	OSHA OEL TWA	100
	NIOSH OEL STEL	150
	Canada - AB, BC, ON, PQ TWA	100
	Canada - AB, BC, ON, PQ STEL	150
	Europe (EU) TWA	50
	Europe (EU) STEL	100
	Denmark TWA	25
	Denmark STEL	50
	Germany TWA	100
	Germany STEL	200
	Japan, Singapore TWA	100
	Australia, Singapore STEL	150
	Australia TWA	80
	New Zealand, TWA	50
	New Zealand TWA	50
	UK WEL TWA	50
	UK WEL STEL	100

Component	Location, Type	Value (ppm)
Ethylbenzene	NIOSH REL TWA	100
	OSHA OEL TWA	100
	NIOSH OEL STEL	125
	Canada - AB, BC, ON, PQ TWA	100
	Canada - AB, BC, ON, PQ STEL	125
	Europe (EU) TWA	100
	Europe (EU) STEL	200
	Denmark, Sweden TWA	50
	Denmark, Sweden STEL	100
	France TWA	20
	France STEL	100
	Germany TWA	20
	Germany STEL	40
	Australia, NZ, Singapore TWA	100
	Australia, NZ, Singapore STEL	125
	UK WEL TWA	100
	UK WEL STEL	125

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

ODOR: Solvent

COLOR: Pale Yellow or Clear

pH: Not Available

PERCENT VOLATILE: Not Available

FLASH POINT AND METHOD: Not Available

AUTOIGNITION TEMPERATURE: Not Available

VAPOR PRESSURE: Not Available

VAPOR DENSITY: Not Available

BOILING POINT: Not Available

MELTING POINT: Not Available

SOLUBILITY IN WATER: Not Available

DENSITY: Not Available

VISCOSITY: Not Available

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride.

INCOMPATIBLE MATERIALS: Strong acids, Strong bases, Oxidizing materials.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD_{50}: Not Available

SKIN ABSORPTION: Not Available

ORAL LD_{50}: Not Available

INHALATION LC_{50}: Not Available

CARCINOGENICITY

IARC: Group 2A - Probably carcinogenic to humans.

NTP: Reasonably anticipated to be a human carcinogen.

OSHA: Listed

REPRODUCTIVE EFFECTS: Not Available

TERATOGENIC EFFECTS: Not Available

MUTAGENICITY: Suspected of causing genetic defects .

12. ECOLOGICAL INFORMATION

BIOACCUMULATION/ACCUMULATION: Not Available

AQUATIC TOXICITY (ACUTE)

96-HOUR LC_{50}: 40.7 mg/L (Pimephales promelas)

48-HOUR EC_{50}: 59 ug/L (Daphnia magna)

CHEMICAL FATE INFORMATION: Not Available

COMMENTS: The preceding data is for trichloroethylene.

13. DISPOSAL CONSIDERATIONS

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

PRODUCT DISPOSAL: This material and its container must be disposed of as hazardous waste. Contact a licensed waste disposal company.

EMPTY CONTAINER: Follow all MSDS/label precautions even after container is emptied because it may retain product residues.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Resin solution, flammable

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: 1866

PACKING GROUP: III

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

ROAD AND RAIL (ADR/RID)

PROPER SHIPPING NAME: Resin solution, flammable

UN NUMBER: 1866

HAZARD CLASS: 3

PACKING GROUP: III

AIR (ICAO/IATA)

SHIPPING NAME: Resin solution, flammable

UN/NA NUMBER: 1866

PRIMARY HAZARD CLASS/DIVISION: 3

PACKING GROUP: III

VESSEL (IMO/IMDG)

SHIPPING NAME: Resin solution, flammable

UN/NA NUMBER: 1866

PRIMARY HAZARD CLASS/DIVISION: 3

PACKING GROUP: III

EmS: F-E, S-D

MARINE POLLUTANT #1: No

CANADA TRANSPORT OF DANGEROUS GOODS

SHIPPING NAME: Resin solution, flammable

UN/NA NUMBER: 1866

PRIMARY HAZARD CLASS/DIVISION: 3

PACKING GROUP: III

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Fire hazard. Acute health hazard. Chronic health hazard.

313 REPORTABLE INGREDIENTS: Ethylbenzene, Trichloroethylene, Xylene

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: 100 lbs

TSCA (TOXIC SUBSTANCE CONTROL ACT)

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

REGULATIONS

STATE REGULATIONS:

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

Component	CAS	CA	MA	MN	NJ	PA	RI
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	Yes	Yes
Trichloroethylene	79-01-6	Yes	Yes	Yes	Yes	Yes	Yes
Xylenes (mixed)	1330-20-7	No	Yes	Yes	Yes	Yes	Yes

CALIFORNIA PROPOSITION 65: This material may contain the following components which are known to the State of California to cause cancer, birth defects or other reprductive harm and may be subject to the requirements of California Propostion 65 (CA Health and Safety Code section 25249.5) : Ethylbenzene, Trichloroethylene

CANADA

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

16. OTHER INFORMATION

APPROVED BY: EHS DEPT

PREPARED BY: E Bolton

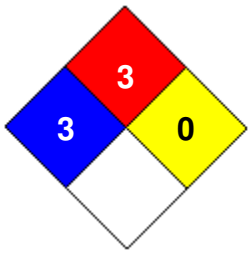
INFORMATION CONTACT: msds@lesker.com

REVISION SUMMARY: This MSDS replaces the 3/11/2013 MSDS.

HMIS RATING

HEALTH	*	2
FLAMMABILITY		3
PHYSICAL HAZARD		0
PERSONAL PROTECTION		H

NFPA CODES



MANUFACTURER DISCLAIMER:

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