

Safety Data Sheet
acc. to OSHA HCS

Printing date 03/22/2017

Reviewed on 03/22/2017

1 Identification

- **Product identifier**
- **Trade name:** LC.1.K1 HIGH GLOSS LOW VOC & NR 2K URETHANE CLEARCOAT
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Lusid Technologies
5195 West 4700 South
KEARNS, UT 84118
USA
www.globalstar.online
- **Information department:** Product safety department
- **Emergency telephone number:**
INFOTRAC
1-800-535-5053

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS07

- **Signal word** Danger

- **Hazard-determining components of labeling:**
acetone

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n-butyl acetate

bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate

· **Hazard statements**

Highly flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause drowsiness or dizziness.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves/protective clothing/eye protection/face protection.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see on this label).

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

Wash contaminated clothing before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	25-50%
67-64-1	acetone	25-50%
123-86-4	n-butyl acetate	10-25%
41556-26-7	bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	≤ 2.5%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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· Protective Action Criteria for Chemicals

· PAC-1:

67-64-1	acetone	200 ppm
123-86-4	n-butyl acetate	5 ppm
1330-20-7	xylene	130 ppm
100-41-4	ethylbenzene	33 ppm
77-58-7	dibutyltin dilaurate	1.1 mg/m ³
122-99-6	2-Phenoxyethanol	1.5 ppm
108-88-3	toluene	67 ppm

· PAC-2:

67-64-1	acetone	3200* ppm
123-86-4	n-butyl acetate	200 ppm
1330-20-7	xylene	920* ppm
100-41-4	ethylbenzene	1100* ppm
77-58-7	dibutyltin dilaurate	8 mg/m ³
122-99-6	2-Phenoxyethanol	16 ppm
108-88-3	toluene	560 ppm

· PAC-3:

67-64-1	acetone	5700* ppm
123-86-4	n-butyl acetate	3000* ppm
1330-20-7	xylene	2500* ppm
100-41-4	ethylbenzene	1800* ppm
77-58-7	dibutyltin dilaurate	48 mg/m ³
122-99-6	2-Phenoxyethanol	97 ppm
108-88-3	toluene	3700* ppm

7 Handling and storage

· Handling:

· **Precautions for safe handling** No special precautions are necessary if used correctly.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

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· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

67-64-1 acetone

PEL Long-term value: 2400 mg/m³, 1000 ppm

REL Long-term value: 590 mg/m³, 250 ppm

TLV Short-term value: 1187 mg/m³, 500 ppm

Long-term value: 594 mg/m³, 250 ppm

BEI

123-86-4 n-butyl acetate

PEL Long-term value: 710 mg/m³, 150 ppm

REL Short-term value: 950 mg/m³, 200 ppm

Long-term value: 710 mg/m³, 150 ppm

TLV Short-term value: 712 mg/m³, 150 ppm

Long-term value: 238 mg/m³, 50 ppm

· **Ingredients with biological limit values:**

67-64-1 acetone

BEI 50 mg/L

Medium: urine

Time: end of shift

Parameter: Acetone (nonspecific)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Liquid
· Color:	Clear
· Odor:	Characteristic
· Odor threshold:	Not determined.

· **pH-value:** Not determined (pH N/A in solvent coatings)

· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	55 °C (131 °F)

· **Flash point:** -17 °C (1 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 370 °C (698 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

· Lower:	1.2 Vol %
· Upper:	13.0 Vol %

· **Vapor pressure at 20 °C (68 °F):** 233 hPa (175 mm Hg)

· **Density at 20 °C (68 °F):** 1.065 g/cm³ (8.887 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

· **Water:** Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· **Solvent content:**

· **Organic solvents:** 38.9 %

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VOC content: 12.6 %
 Coating VOC 298.7 g/l / 2.49 lb/gl
 Material VOC 134.2 g/l / 1.12 lb/gl

Solids content: 31.9 %
 · **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
 The product shows the following dangers according to internally approved calculation methods for preparations:
 Irritant
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

1330-20-7	xylene	3
100-41-4	ethylbenzene	2B
108-88-3	toluene	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

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- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|---------------------------------------|----------------------------|
| · UN-Number | UN1263 |
| · DOT, IMDG, IATA | |
| · UN proper shipping name | Paint |
| · DOT | PAINT |
| · IMDG, IATA | |
| · Transport hazard class(es) | |
| · DOT | |
| | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · IMDG, IATA | |
| | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · Packing group | II |
| · DOT, IMDG, IATA | |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 33 |

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· EMS Number:	<i>F-E,S-E</i>
· Stowage Category	<i>B</i>
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	<i>Not applicable.</i>
· Transport/Additional information:	
· DOT	
· Quantity limitations	<i>On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L</i>
· IMDG	
· Limited quantities (LQ)	<i>1L</i>
· Excepted quantities (EQ)	<i>Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</i>
· UN "Model Regulation":	<i>UN 1263 PAINT, 3, II</i>

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

<i>1330-20-7</i>	<i>xylene</i>
<i>100-41-4</i>	<i>ethylbenzene</i>
<i>122-99-6</i>	<i>2-Phenoxyethanol</i>
<i>108-88-3</i>	<i>toluene</i>

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

<i>100-41-4</i>	<i>ethylbenzene</i>
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· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

<i>108-88-3</i>	<i>toluene</i>
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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

<i>67-64-1</i>	<i>acetone</i>	<i>I</i>
<i>1330-20-7</i>	<i>xylene</i>	<i>I</i>
<i>100-41-4</i>	<i>ethylbenzene</i>	<i>D</i>
<i>108-88-3</i>	<i>toluene</i>	<i>II</i>

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· **TLV (Threshold Limit Value established by ACGIH)**

67-64-1	acetone	A4
1330-20-7	xylene	A4
100-41-4	ethylbenzene	A3
77-58-7	dibutyltin dilaurate	A4
108-88-3	toluene	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

acetone

n-butyl acetate

bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate

· **Hazard statements**

Highly flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause drowsiness or dizziness.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves/protective clothing/eye protection/face protection.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see on this label).

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

Wash contaminated clothing before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

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Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environment protection department.

· **Contact:** Product Safety Dept.

· **Date of preparation / last revision** 03/22/2017 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3