

Safety Data Sheet

acc. to HCS and GHS

Printing date 08/11/2015

Reviewed on 08/11/2015

1 Identification

- **Product identifier**
- **Trade name:** SEAL-LAC
- **Application of the substance / the mixture** Clear coating material, Varnish
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
ShellacFinishes
7740 Goldfish Way, San Diego, CA 92129
Tel (858) 780-2865
sales@shellacfinishes.biz
- **Emergency telephone number:**
(858) 780-2865



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

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



GHS08 Health hazard

STOT SE 2 H371 May cause damage to organs.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

- **Label elements**

- **GHS label elements**

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

- **Hazard pictograms**



GHS02 GHS07 GHS08

- **Signal word** Danger

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

methanol

- **Hazard statements**

H225 Highly flammable liquid and vapor.

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

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H371 May cause damage to organs.

- **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P280 Wear protective gloves / eye protection.

P260 Do not breathe mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

P403+P235 Store in a well-ventilated place. Keep cool.

- **Additional information:**

Rags, steel wool, or waste soaked with product may spontaneously ignite if improperly handled or discarded.

Repeated exposure may cause skin dryness or cracking.

May cause drowsiness or dizziness.

- **Hazard description:**

- **WHMIS-symbols:**

B2 - Flammable liquid

D1B - Toxic material causing immediate and serious toxic effects

D2B - Toxic material causing other toxic effects



- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



* - Indicates a long term health hazard from repeated or prolonged exposures.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

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

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Dangerous components:

64-17-5	ethanol Flam. Liq. 2, H225	50-100%
67-63-0	propan-2-ol Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	<10%
67-56-1	methanol Flam. Liq. 2, H225 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 STOT SE 1, H370	<10%
108-10-1	4-methylpentan-2-one Flam. Liq. 2, H225 Acute Tox. 4, H332; Eye Irrit. 2A, H319; STOT SE 3, H335	<10%
9000-59-3	Shellac	10-25%

4 First-aid measures

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed

Nausea

Gastric or intestinal disorders

Dizziness

Allergic reactions

Irritant to eyes.

Blindness

Acidosis

Disorientation

Unconsciousness

Danger

Danger of impaired breathing.

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Danger of severe eye injury.
 Danger of convulsion.
 Danger of circulatory collapse.
 Condition may deteriorate with alcohol consumption.
 · **Indication of any immediate medical attention and special treatment needed**
 Contains methanol. Consult literature for specific antidotes.
 Medical supervision for at least 48 hours.
 If necessary oxygen respiration treatment.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water stream.
- **Special hazards arising from the substance or mixture**
 Can form explosive gas-air mixtures.
 During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:**
 Wear self-contained respiratory protective device.
 Wear fully protective suit.
- **Additional information**
 Eliminate all ignition sources if safe to do so.
 Use large quantities of foam as it is partially destroyed by the product.
 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
 Cool endangered receptacles with water spray.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 Use respiratory protective device against the effects of fumes/dust/aerosol.
 Wear protective equipment. Keep unprotected persons away.
 Ensure adequate ventilation.
 Keep away from ignition sources.
 Protect from heat.
- **Environmental precautions:**
 Do not allow to enter sewers/ surface or ground water.
 Prevent from spreading (e.g. by damming-in or oil barriers).
- **Methods and material for containment and cleaning up:**
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose contaminated material as waste according to item 13.
 Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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7 Handling and storage

- **Precautions for safe handling**

Use only in well ventilated areas.

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

Rags, metal wools / cuttings / shavings and waste papers soaked with product must be placed in a sealed metal container rated for flammable waste.

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

Keep respiratory protective device available.

Keep ignition sources away - Do not smoke.

Protect from heat.

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.

Provide ventilation for receptacles.

Avoid storage near extreme heat, ignition sources or open flame.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from oxidizing agents.

Do not store together with acids.

- **Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.

Keep receptacle tightly sealed.

Protect from heat and direct sunlight.

- **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.

- **Control parameters**

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

64-17-5 ethanol

PEL (USA)	Long-term value: 1900 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV (USA)	Short-term value: 1880 mg/m ³ , 1000 ppm
EL (Canada)	Short-term value: 1000 ppm
EV (Canada)	Long-term value: 1.900 mg/m ³ , 1.000 ppm
LMPE (Mexico)	Long-term value: 1900 mg/m ³ , 1000 ppm
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9000-59-3 Shellac

EV (Canada)	Long-term value: 10 mg/m ³ total dust
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67-63-0 propan-2-ol

PEL (USA)	Long-term value: 980 mg/m ³ , 400 ppm
REL (USA)	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV (USA)	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm BEI
EL (Canada)	Short-term value: 400 ppm Long-term value: 200 ppm
EV (Canada)	Short-term value: 400 ppm Long-term value: 200 ppm
LMPE (Mexico)	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm

67-56-1 methanol

PEL (USA)	Long-term value: 260 mg/m ³ , 200 ppm
REL (USA)	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
TLV (USA)	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm Skin; BEI
EL (Canada)	Short-term value: 250 ppm Long-term value: 200 ppm Skin
EV (Canada)	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
LMPE (Mexico)	Short-term value: 310 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm PIEL

108-10-1 4-methylpentan-2-one

PEL (USA)	Long-term value: 410 mg/m ³ , 100 ppm
REL (USA)	Short-term value: 300 mg/m ³ , 75 ppm Long-term value: 205 mg/m ³ , 50 ppm
TLV (USA)	Short-term value: 307 mg/m ³ , 75 ppm Long-term value: 82 mg/m ³ , 20 ppm BEI
EL (Canada)	Short-term value: 75 ppm Long-term value: 20 ppm

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EV (Canada)	Short-term value: 75 ppm Long-term value: 205 mg/m ³ , 50 ppm
LMPE (Mexico)	Short-term value: 307 mg/m ³ , 75 ppm Long-term value: 205 mg/m ³ , 50 ppm

· **Ingredients with biological limit values:**

67-63-0 propan-2-ol

BEI (USA)	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
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67-56-1 methanol

BEI (USA)	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
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108-10-1 4-methylpentan-2-one

BEI (USA)	1 mg/L Medium: urine Time: end of shift Parameter: MIBK
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· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· **Breathing equipment:**



Combined Organic Vapor and Particulate Respirator is recommended for use during all processing activities.

· **Protection of hands:**



Protective gloves

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

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

· **Material of gloves**

Nitrile rubber, NBR

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

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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.

- **Eye protection:**

Contact lenses should not be worn.



Safety glasses

- **Body protection:** Protective work clothing

- **Limitation and supervision of exposure into the environment**

No further relevant information available.

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:

Liquid

Color:

Clear to straw color.

- **Odor:**

Solvent-like

- **Odor threshold:**

Not determined.

- **pH-value:**

Not determined.

- **Change in condition**

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

172 °F / 78 °C

- **Flash point:**

55 °F / 13 °C

- **Flammability (solid, gaseous):**

Not applicable.

- **Auto-ignition temperature:**

700° F / 371 °C

- **Decomposition temperature:**

Not determined.

- **Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

Lower:

3.5 Vol %

Upper:

15.0 Vol %

- **Vapor pressure at 20 °C (68 °F):**

59 hPa (44 mm Hg)

- **Density at 20 °C (68 °F):**

1 g/cm³ (8.345 lbs/gal)

- **Relative density**

Not determined.

- **Vapour density**

Not determined.

- **Evaporation rate**

Not determined.

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- **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:** 78.9 %
 - VOC content:** 78.9 %
 - Solids content:** 21.0 %
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
To avoid thermal decomposition do not overheat.
- **Possibility of hazardous reactions**
Flammable.
Reacts violently with oxidizing agents.
Reacts with strong acids and alkali.
Develops readily flammable gases / fumes.
Used empty containers may contain product gases which form explosive mixtures with air.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid**
Keep ignition sources away - Do not smoke.
Store away from oxidizing agents.
Keep away from heat and direct sunlight.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
Possible in traces.
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Small quantities of formaldehyde may be formed.
Ammonia

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11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

- LD/LC50 values that are relevant for classification:

67-56-1 methanol

Oral	LD50	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)

- Primary irritant effect:
 - on the skin: Irritant to skin and mucous membranes.
 - on the eye: Strong irritant with the danger of severe eye injury.
- Sensitization:
 - Sensitization possible through skin contact.
 - Sensitizing effect through inhalation is possible with prolonged exposure.
- Subacute to chronic toxicity: Vapors have narcotic effect.
- Additional toxicological information:
 - The product shows the following dangers according to internally approved calculation methods for preparations:
 - Harmful
 - Irritant
 - Danger through skin absorption.
 - Toxic and/or corrosive effects may be delayed up to 48 hours.
 - At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.
 - Inhalation of concentrated vapors as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

- Carcinogenic categories

- NTP (National Toxicology Program)

None of the ingredients is listed.

- Repeated Dose Toxicity:
 - May cause damage to organs through prolonged or repeated exposure.
 - Repeated exposures may result in skin and/or respiratory sensitivity.

12 Ecological information

- Toxicity
- Aquatic toxicity:
 - The product contains materials that are harmful to the environment.
 - Toxic for aquatic organisms
- Persistence and degradability Moderately/partly eliminable from water.
- Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- Ecotoxicological effects:
- Remark:
 - The product is oxygen-consuming. The declared action may be partly caused by lack of oxygen.
 - The product leads to anaesthesia-like states
 - Due to mechanical actions of the product (e.g. agglutinations) damages may occur.

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- **Additional ecological information:**
- **General notes:**
 - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
 - Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
- **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.
 - Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
 - Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
- **Uncleaned packagings:**
- **Recommendation:**
 - Disposal must be made according to official regulations.
 - Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA** UN1263
- **UN proper shipping name**
- **DOT** Paint related material
- **ADR** 1263 PAINT RELATED MATERIAL
- **IMDG, IATA** PAINT RELATED MATERIAL
- **Transport hazard class(es)**
- **DOT**
- **Class** 3 Flammable liquids.
- **Label** 3



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· ADR



- Class 3 (F1) Flammable liquids
- Label 3

· IMDG, IATA



- Class 3 Flammable liquids.
- Label 3
- Packing group
- DOT, ADR, IMDG, IATA II
- Environmental hazards:
- Marine pollutant: No
- Special precautions for user Warning: Flammable liquids
- Danger code (Kemler): 33
- EMS Number: F-E, S-E
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.
- UN "Model Regulation": UN1263, Paint related material, 3, II

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):

67-63-0 propan-2-ol

67-56-1 methanol

108-10-1 4-methylpentan-2-one

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65 (California)

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

108-10-1 4-methylpentan-2-one

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

64-17-5 ethanol

1

67-63-0 propan-2-ol

3

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

64-17-5 ethanol

A3

67-63-0 propan-2-ol

A4

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **State Right to Know Listings**

None of the ingredients is listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

64-17-5 ethanol

· **Canadian Ingredient Disclosure list (limit 1%)**

67-63-0 propan-2-ol

67-56-1 methanol

108-10-1 4-methylpentan-2-one

· **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.

· **Date of preparation / last revision** 03/12/2014 / -

· **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

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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)
WHMIS: Workplace Hazardous Materials Information System (Canada)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Acute Tox. 3: Acute toxicity, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1
STOT SE 2: Specific target organ toxicity - Single exposure, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Sources

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