

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 07/21/2016

Revision: 07/21/2016

1 Identification

- **Product identifier**
- **Trade name:** Royal-Lac Post Catalyzed
- **Product code:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Coating
- **Restrictions on use:** No relevant information available.
- **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.com
- **Emergency telephone number:** (858) 780-2865



2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 2 H225 Highly flammable liquid and vapor.
Eye Irrit. 2A H319 Causes serious eye irritation.
Carc. 2 H351 Suspected of causing cancer.
 - **Label elements**
 - **GHS label elements**
Note for United States only:
If a Category 2 carcinogen ingredient is present in the mixture at a concentration between 0.1% and 1%, information is required on the SDS for a product. However, a label warning is optional.
The product is classified and labeled according to the Globally Harmonized System (GHS).
 - **Hazard pictograms:**
The following pictograms are optional for OSHA GHS labeling; GHS08. Notification is still required on the SDS.
-
- GHS02 GHS07 GHS08
- **Signal word:** Danger
 - **Hazard statements:**
The following statements are optional for OSHA GHS labeling: H351. Notification is still required on the SDS.
H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
 - **Precautionary statements:**
The following statements are optional for OSHA GHS labeling: P201, P202, P308+P313, P405. Notification is still required on the SDS.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.

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P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection.
P240	Ground/bond container and receiving equipment.
P233	Keep container tightly closed.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378	In case of fire: Use foam, powder, or carbon dioxide for extinction.
P337+P313	If eye irritation persists: Get medical advice/attention.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients· **Chemical characterization: Mixtures**· **Components:**

540-88-5	tert-butyl acetate Flam. Liq. 2, H225	20-30%
9000-59-3	Shellac	<20%
67-64-1	acetone Flam. Liq. 2, H225 Eye Irrit. 2A, H319; STOT SE 3, H336	<20%
64-17-5	ethanol Flam. Liq. 2, H225 Eye Irrit. 2A, H319	<20%
67-63-0	propan-2-ol Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	<2%
67-56-1	methanol Flam. Liq. 2, H225 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 STOT SE 1, H370 Eye Irrit. 2B, H320	<1%
108-10-1	4-methylpentan-2-one Flam. Liq. 2, H225 Carc. 2, H351 Acute Tox. 4, H332; Eye Irrit. 2A, H319; STOT SE 3, H335	<1%

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· **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air; consult doctor in case of complaints.
Provide oxygen treatment if affected person has difficulty breathing.

· **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:**

Dizziness
Coughing
Irritant to eyes.

· **Danger:** Suspected of causing cancer.

· **Indication of any immediate medical attention and special treatment needed:**

If medical advice is needed, have product container or label at hand.

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**

Formation of toxic gases is possible during heating or in case of fire.
Highly flammable liquid and vapor.

· **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.
Cool endangered receptacles with water spray.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
 - Ensure adequate ventilation.
 - Keep away from ignition sources.
 - Protect from heat
 - Use personal protective equipment as required.
- **Environmental precautions:** Avoid release to the environment.
- **Methods and material for containment and cleaning up:**
 - Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).
 - Send for recovery or disposal in suitable receptacles.
- **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.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
 - Avoid splashes or spray in enclosed areas.
 - Use only in well ventilated areas.
 - Avoid contact with the eyes and skin.
 - Keep out of reach of children.
- **Information about protection against explosions and fires:**
 - Highly flammable liquid and vapor.
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
 - Flammable gas-air mixtures may be formed in empty containers/receptacles.
- **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.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s):** No relevant information available.

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8 Exposure controls/personal protection

· Control parameters

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

540-88-5 tert-butyl acetate

PEL (USA)	Long-term value: 950 mg/m ³ , 200 ppm
REL (USA)	Long-term value: 950 mg/m ³ , 200 ppm
TLV (USA)	Short-term value: 712 mg/m ³ , 150 ppm Long-term value: 238 mg/m ³ , 50 ppm
EL (Canada)	Long-term value: 200 ppm
EV (Canada)	Long-term value: 950 mg/m ³ , 200 ppm
LMPE (Mexico)	Long-term value: 200 ppm

9000-59-3 Shellac

EV (Canada)	Long-term value: 10 mg/m ³ total dust
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67-64-1 acetone

PEL (USA)	Long-term value: 2400 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 590 mg/m ³ , 250 ppm
TLV (USA)	Short-term value: 1187 mg/m ³ , 500 ppm Long-term value: 594 mg/m ³ , 250 ppm BEI
EL (Canada)	Short-term value: 500 ppm Long-term value: 250 ppm
EV (Canada)	Short-term value: 750 ppm Long-term value: 500 ppm
LMPE (Mexico)	Short-term value: 750 ppm Long-term value: 500 ppm A4, IBE

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: 1000 ppm A3

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

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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: 400 ppm Long-term value: 200 ppm A4, IBE

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: 250 ppm Long-term value: 200 ppm PIEL, IBE

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 IARC 2B
EV (Canada)	Short-term value: 75 ppm Long-term value: 205 mg/m ³ , 50 ppm
LMPE (Mexico)	Short-term value: 75 ppm Long-term value: 20 ppm A3, IBE

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· **Ingredients with biological limit values:**

67-64-1 acetone

BEI (USA)	50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
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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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· **Exposure controls**

· **Engineering measures** Provide adequate ventilation.

· **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.

· **Engineering controls:** Provide adequate ventilation.

· **Breathing equipment:** Suitable respiratory protective device recommended.

· **Protection of hands:**



Protective gloves

· **Material of gloves** Nitrile rubber, NBR

· **Eye protection:**



Safety glasses

· **Body protection:** Protective work clothing

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- **Limitation and supervision of exposure into the environment**
Avoid release to the environment.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

- **Form:** Viscous liquid.
- **Color:** Clear to straw color.
- **Odor:** Solvent-like
- **Odor threshold:** Not determined.

- **pH-value:** Not determined.
- **Melting point/Melting range:** Not determined.
- **Boiling point/Boiling range:** >35 °C (>95 °F)

- **Flash point:** <23 °C (<73 °F)

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

- **Auto-ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

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

· Explosion limits

- **Lower:** Not determined.
- **Upper:** Not determined.

- **Oxidizing properties:** Not determined.

- **Vapor pressure:** Not determined.

· Density:

- **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.

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VOC content: <275 g/l
Other information **Solids** (% by weight): 40

Application Data:

SUGGESTED USES: Wood Finish

MIXING RATIO: 100 parts Royal-Lac Post Catalyzed with 3 parts of supplied catalyst

POT LIFE: 12 Hours

REDUCER: Denatured Alcohol

RETARDER: Denatured Alcohol

CLEAN-UP SOLVENT: Denatured Alcohol

RECOMMENDED WET FILM: 3-4 mils

COVERAGE: 640 sq. ft/gal at 1 mil dry and at 100% transfer efficiency. Coverage will vary depending on method of application or coating thickness.

Drying Times:

At 70°F

Tack Free: 30 minutes

Dry to Sand: 2.5 hour

Dry to Stack: 2.5–5 hours

At 125°F

Tack Free: Flash off before entering oven

Dry to Sand: 25–45 minutes

Dry to Stack: 55–75 minutes

Note: Dry times are greatly affected by film build, porosity of substrate, air movement as well as heat and humidity. Temperatures are based on actual board temperature. Minimum curing temperatures of 65°F/18.5 °C must be maintained throughout the curing cycle to achieve the film integrity.

10 Stability and reactivity

- **Reactivity:** No additional information.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions:**
Reacts with catalysts, oxidizing agents and strong alkali.
Toxic fumes may be released if heated above the decomposition point.
Used empty containers may contain product gases which form explosive mixtures with air.
- **Conditions to avoid:** Excessive heat.
- **Incompatible materials:** Oxidizers
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

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11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· **LD/LC50 values that are relevant for classification:** None.

· Primary irritant effect:

· **On the skin:** Based on available data, the classification criteria are not met.

· **On the eye:** Irritating effect.

· **Sensitization:** Based on available data, the classification criteria are not met.

· IARC (International Agency for Research on Cancer):

64-17-5	ethanol	1
67-63-0	propan-2-ol	3
108-10-1	4-methylpentan-2-one	2B

· NTP (National Toxicology Program):

None of the ingredients are listed.

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

None of the ingredients are listed.

· Probable route(s) of exposure:

Eye contact.

Skin contact.

· Acute effects (acute toxicity, irritation and corrosivity):

Vapors have narcotic effect.

Irritating to eyes.

May be harmful if swallowed or if inhaled.

· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carc. 2

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Suspected of causing cancer.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **STOT-single exposure:** May cause drowsiness or dizziness.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

· Toxicity

· **Aquatic toxicity** No relevant information available.

· **Persistence and degradability** No relevant information available.

· **Bioaccumulative potential:** No relevant information available.

· **Mobility in soil:** No relevant information available.

· Ecotoxicological effects:

· **Remark:** Due to mechanical actions of the product (e.g. agglutinations), damages may occur.

· Additional ecological information

· **General notes:** Avoid release to the environment.

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- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
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. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|---|--------------------------|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | UN1263 |
| · UN proper shipping name | |
| · DOT, IATA | Paint related material |
| · ADR, IMDG | PAINT RELATED MATERIAL |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · ADR | |
|  | |
| · Class | 3 (F1) Flammable liquids |
| · Label | 3 |

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· **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

· **EMS Number:**

F-E, S-E

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **DOT**



Limited Quantity for packages less than 30 kg and inner packagings less than 1 L.

· **ADR**



Limited Quantity for packages less than 30 kg and inner packagings less than 1 L.

· **IMDG**



Limited Quantity for packages less than 30 kg and inner packagings less than 1 L.

· **IATA**



Limited Quantity for packages less than 30 kg and inner packagings less than 1 L.

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15 Regulatory information

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

- **United States (USA)**
- **SARA**

- **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

67-63-0 | propan-2-ol

- **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

- **Proposition 65 (California)**

- **Chemicals known to cause cancer:**

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 | ethanol

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

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 | ethanol

67-56-1 | methanol

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

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency):**

67-64-1 | acetone

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

- **IARC (International Agency for Research on Cancer):**

64-17-5 | ethanol

1

67-63-0 | propan-2-ol

3

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

2B

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

None of the ingredients are listed.

- **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

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· **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** 07/21/2016 / -

· **Abbreviations and acronyms:**

ADR: 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

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

LDLo: Lowest Lethal Dose Observed

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

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

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

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

Carc. 2: Carcinogenicity – Category 2

Carc. 2: Carcinogenicity – Category 2

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

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

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor_internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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