

# Material Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 60473 Shellac 3-Circles Solution

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Revised edition: 16.03.2015

Version: 1

Printed: 04.05.2016

### 1. Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1. Product Identifier

*Product Name:* Shellac 3-Circles Solution

*Article No.:* 60473

#### 1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

*Identified uses:*

*Restoration purposes*

*Uses advised against:*

#### 1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

*Company:* Kremer Pigmente GmbH & Co. KG

*Address:* Hauptstr. 41-47, 88317 Aichstetten, Germany

*Tel./Fax.:* Tel +49 7565 914480, Fax +49 7565 1606

*Internet:* www.kremer-pigmente.de

*E-Mail:* info@kremer-pigmente.de

*Importer:* --

#### 1.4. Emergency No.

*Emergency No.:* +49 7565 914480 (Mon-Fri 8:00 - 17:00)

### 2. Hazards Identification

#### 2.1. Classification of the Substance or Mixture

*Classification according to EC Regulation 1272/2008*

*Flammable liquids, category 2*

*Eye irritation, category 2*

H225 Highly flammable liquid and vapour.

Cat.: 2

H319 Causes serious eye irritation.

Cat.: 2

*Classification according to EC Regulation No. 67/548 or No. 1999/45*

Flammable (F) R11 Highly flammable

*Safety Phrases:*

*Possible Environmental Effects:*

*See Section 12.*

#### 2.2. Label Elements

*Classification according to EC Regulation 1272/2008*

*Hazard designation:*



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GHS07

*Signal word:*

Warning

*Hazard designation:*

H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.

*Safety designation:*

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
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 and continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/ attention.  
P403+P235 Store in a well ventilated place. Keep cool.  
P501 Dispose of contents/ container according to regional, national and international regulations.

*Hazardous components for labelling:*

### 2.3. Other Hazards

*No information available.*

## 3. Composition/Information on Ingredients

### 3.1. Substance

### 3.2. Mixture

*Chemical Characterization:*

*Mixture of shellac and ethanol.*

*Hazardous Ingredients:*

Ethanol (F; R11; H225; 319); REACH Reg.-Nr. 01-2119457610-43	< 70 %	CAS-Nr: 64-17-5 EINECS-Nr: 200-578-6 EC-Nr: 603-002-00-5
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*Additional information:*

## 4. First Aid Measures

### 4.1. Description of the First Aid Measures

*General information:*

*Take person away from hazardous area.  
Remove contaminated clothes immediately.*

*After inhalation:*

*Supply fresh air. If required give artificial respiration. Keep patient warm.  
Give artificial respiration in case breathing is not regular or if it has stopped.  
In case of unconsciousness place patient stable in side position for*

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*transportation.*

*If breathing is difficult call a physician.*

*After skin contact:*

*Remove contaminated clothing.*

*Wash off with plenty of water. Consult a physician if irritation persists.*

*After eye contact:*

*Rinse open eyes with plenty of water for at least 15 minutes.*

*Consult a physician immediately.*

*After ingestion:*

*Rinse mouth with water and drink plenty of water.*

*Do not induce vomiting. Consult physician immediately.*

*In case of spontaneous vomiting, bring unconsciousness person in a stable side position.*

### 4.2. Most important Symptoms and Effects, both Acute and Delayed

*Symptoms:*

*Depending on the absorbed concentrations different states of intoxication is reached after an euphoric stage. Further symptoms are loss of self-control, dizziness, vomiting.*

*Effects:*

*Can cause liver damage.*

*Causes depression of the central nervous system.*

*Prolonged/repeated contact may cause skin irritation and/or dermatitis.*

### 4.3. Indication of any Immediate Medical Attention and special Treatment needed

*Treatment:*

*Treat symptomatically.*

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## 5. Fire-Fighting Measures

### 5.1. Extinguishing Media

*Suitable extinguishing media:*

*Water mist, extinguishing powder, foam, carbon dioxide.*

*Unsuitable extinguishing media:*

*Never apply a strong water jet.*

### 5.2. Special Hazards arising from the Substance or Mixture

*Special hazards:*

*Flammable liquid.*

*Fumes can form an explosive mixture with air.*

*In case of fire: formation of carbon monoxide.*

### 5.3. Advice for Firefighters

*Protective equipment:*

*Wear self-contained respiratory protective device and full protective gear.*

*Further information:*

*Cool exposed containers with water mist.*

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*Collect contaminated extinguishing water and debris separately; avoid contamination of sewage system.*

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### 6. Accidental Release Measures

#### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

*Personal precautions:*

*Wear appropriate protective equipment. Keep spectators away.  
Provide adequate ventilation. Keep away from sources of ignition.  
Avoid contact with skin and eyes. Do not ingest or inhale.  
Do not inhale aerosol/fumes/vapors.*

#### 6.2. Environmental Precautions

*Environmental precautions:*

*Do not discharge into drains, surface or ground water in concentrated form.  
Contact local authorities if product pollutes soil or vegetation.*

#### 6.3. Methods and Material for Containment and Cleaning Up

*Methods and material:*

*Contain with absorbent material (sand, diatomaceous earth, universal absorbent, Oil Dri) and dispose accordingly.*

#### 6.4. Reference to other Sections

*Protective clothing, see Section 8.*

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### 7. Handling and Storage

#### 7.1. Precautions for Safe Handling

*Instructions on safe handling:*

*Keep containers tightly closed.  
Provide adequate ventilation, also in floor area (vapors are heavier than air).*

*Hygienic measures:*

*Take off contaminated clothing immediately.  
Do not inhale gas/fumes/vapors/aerosols.  
Avoid contact with eyes and skin.  
Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.*

#### 7.2. Conditions for Safe Storage, including any Incompatibilities

*Storage conditions:*

*Store in tightly sealed containers in a dry and well ventilated location.  
Floor must be solvent resistant and leakproof.*

*Requirements for storage areas and containers:*

*Store in a room with a solvent-proof floor.*

*Information on fire and explosion protection:*

*Keep away from sources of ignition - do not smoke. Take measures to prevent electrostatic discharge.  
Combustible liquid.*

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*Vapors may form an explosive mixture with air.  
Cool exposed containers with water.  
Use only in explosion protective area. Extinguish any naked flames. No not smoke. Remove ignition sources. Avoid sparks. Ensure electrical continuity by bonding and grounding (earthing) all equipment.*

*Storage class (VCI):*

*3: Flammable liquids*

*Further Information:*

*The product is slightly hazardous to water. Consider national regulations regarding handling and storage.*

### 7.3. Specific End Use(s)

*Further information:*

*No information available.*

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## 8. Exposure Controls/Personal Protection

### 8.1. Parameters to be Controlled

*Parameters to be controlled (DE):*

*Ethanol (CAS 64-17-5)  
TLV: 960 mg/m<sup>3</sup>, 500 ml/m<sup>3</sup>; 2(II); DFG, Y  
Y: No teratogenic risk when the exposure limit values (ELV) and biological limit values (BLV) are adhered to.  
Skin effect, inhalable fraction: the substance can be absorbed through the skin.*

*Parameters to be controlled:*

*Derived No-Effect Level (DNEL):*

*Ethanol (CAS 64-17-5):  
1900 mg/m<sup>3</sup> (worker, inhalation, short-term exposition - local effect)  
343 mg/kg kg/d (worker, skin contact, long-term exposition - systemic)  
950 mg/m<sup>3</sup> (worker, inhalation, long-term exposition - systemic); (consumer, inhalation; short-term exposition - local effect)  
206 mg/kg kg/d (consumer, skin contact, long-term exposition - systemic)  
114 mg/kg (consumer, inhalation, long-term exposition - systemic)  
87 mg/kg kg/d (consumer, swallowing, long-term exposition - systemic)*

*Predicted No-Effect Concentration (PNEC):*

*Ethanol (CAS 64-17-5):  
Fresh water: 0.96 mg/l  
Seawater: 0.79 mg/l  
Fresh water sediment: 3.6 mg/kg  
Seawater sediment: 2.9 mg/kg  
Sporadic release: 2.75 mg/l  
Sewage treatment system (STP): 580 mg/l  
Soil: 0.63 mg/kg dwt*

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### *Additional Information:*

#### 8.2. Exposure Controls

##### *Technical protective measures:*

*Adequate ventilation to control airborne concentrations below the exposure limits.*

##### *Personal Protection*

##### *General protective measures:*

*Remove contaminated clothing immediately.*

*Avoid contact with skin and avoid inhalation of vapour. Do not eat, drink or smoke while working.*

##### *Respiratory protection:*

*Required in case of insufficient ventilation (EN 143 or 149).*

*Recommended: composite filter A-P2 (EN 141)*

##### *Hand protection:*

*Solvent resistant protective gloves.*

*The manufacturer's directions for use should be observed because of the great diversity of types.*

##### *Protective glove material:*

*Butyl rubber (480 min; 0.5 mm).*

*Fluoro carbon rubber - FKM (480 min; > 0.4 mm).*

*Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers.*

##### *Eye protection:*

*Tightly fitting safety goggles (EN 166).*

##### *Body protection:*

*Protective clothing (flame-proof, antistatic).*

##### *Environmental precautions:*

*Avoid contamination of sewage system, open water ways and ground water.*

*Prevent contamination of open water ways and sewage system. Avoid contamination of ground water.*

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## 9. Physical and Chemical Properties

### 9.1. Information on Basic Physical and Chemical Properties

*Form: liquid*

*Color: bright yellow*

*Odor: alcohol-like*

*Odor threshold:*

*No information available.*

*pH-Value:*

*not available*

*Melting temperature:*

*not determined*

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*Boiling temperature:*

*not determined*

*Flash point:*

*not available*

*Evaporation rate:*

*No information available.*

*Flammability (solid, gas):*

*not applicable*

*Upper explosion limit:*

*not determined*

*Lower explosion limit:*

*not determined*

*Vapor pressure:*

*not determined*

*Vapor density:*

*No information available.*

*Density:*

*not applicable*

*Solubility in water:*

*insoluble*

*Coefficient of variation (n-Octanol/Water):*

*no information available*

*Auto-ignition temperature:*

*not applicable*

*Decomposition temperature:*

*No data available.*

*Viscosity, dynamic:*

*not applicable*

*Explosive properties:*

*Product is not explosive; however, an explosive vapor/air mixture can be formed.*

*Oxidizing properties:*

*no information available*

*Bulk density:*

*not determined*

### 9.2. Further Information

*Solubility in solvents:*

*Viscosity, kinematic*

*Burning class:*

*Solvent content:*

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*Solid content:*

*Particle size:*

*Other information:*

*No further information.*

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### 10. Stability and Reactivity

#### 10.1. Reactivity

*No decomposition if used according to specifications.*

#### 10.2. Chemical Stability

*Stable if used according to specifications.*

#### 10.3. Possibility of Hazardous Reactions

*Formation of ignitable vapor-air-mixtures possible.*

#### 10.4. Conditions to Avoid

*Conditions to avoid:*

*Avoid contact with heat, sparks and open fire.*

*Thermal decomposition:*

*No further information available.*

#### 10.5. Incompatible Materials

*Oxidizing agents.*

#### 10.6. Hazardous Decomposition Products

*In case of fire: formation of carbon monoxide and carbon dioxide.*

#### 10.7. Further Information

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### 11. Toxicological Information

#### 11. 1. Information on Toxicological Effects

*Acute Toxicity*

*LD50, oral:*

*Ethanol (CAS 64-17-5): 2000 mg/kg (rat; OECD 401)*

*LD50, dermal:*

*Ethanol (CAS 64-17-5): > 2000 mg/kg (rabbit; OECD 402)*

*LC50, inhalation:*

*Ethanol (64-17-5): > 20 mg/kg (4h, rat)*

*Primary effects*

*Irritant effect on skin:*

*No information available*

*Irritant effect on eyes:*

*Irritating (OECD 405)*

*Inhalation:*

*No information available.*

*Ingestion:*

*No information available*

*Sensitization:*

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*No sensitizing effects known.*

*Mutagenicity:*

*No data available.*

*Reproductive toxicity:*

*No information available.*

*Cancerogeny:*

*No data available.*

*Teratogenicity:*

*No information available.*

*Specific target organ toxicity (STOT):*

*Single exposure: the substance or mixture is not classified as specific target organ toxicant.*

*Repeated exposure: the substance or mixture is not classified as specific target organ toxicant.*

*Additional toxicological information:*

*The main component is ethanol.*

*Depending on the absorbed concentrations different states of intoxication is reached after an euphoric stage. Further symptoms are loss of self-control, dizziness, vomiting.*

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## 12. Ecological Information

### 12.1. Aquatic Toxicity

*Fish toxicity:*

*Ethanol: LC50: 15300 mg/l (96h, Pimephales promelas); 11200 mg/l (24h, Salmo gairdneri)*

*Daphnia toxicity:*

*Ethanol: EC50: 858 mg/l (24h, Artemia salina; OECD 202); EC50: > 10000 mg/l (48h, Daphnia magna); LC50: 5012 mg/l (48h, Ceriodaphnia Dubia)*

*Bacteria toxicity:*

*Ethanol: EC50: 5800 mg/l (4h; Paramaecium caudatum)*

*Algae toxicity:*

*Ethanol: EC50: 275 mg/l (3d, Chlorella vulgaris; OECD 201); EC10: 11.5 mg/l (3d, Chlorella vulgaris; OECD 201)*

### 12.2. Persistency and Degradability

*Ethanol: readily biodegradable (84 %, 20d).*

### 12.3. Bioaccumulation

*Ethanol: log Kow -0.3, BCF 0.66. No bioaccumulation.*

### 12.4. Mobility

*Ethanol: the product is mobile in aqueous environment. Not expected to adsorb on soil.*

### 12.5. Results of PBT- und vPvP Assessment

*Ethanol: This substance is not classified as PBT (persistent, bioaccumulative, toxic), nor as vPvB (very persistent, very bioaccumulative).*

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### 12. 6. Other Adverse Effects

*Water hazard class:*

*Do not let product contaminate ground water, waterways or sewage system.*

*Behaviour in sewage systems:*

*Further ecological effects:*

*AOX Value:*

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### 13. Disposal Considerations

#### 13. 1. Waste Treatment Methods

*Product:*

*Must not be disposed together with household garbage.*

*In accordance with current regulations, product may be taken to an incineration plant.*

*European Waste Code (EWC):*

*The waste code is determined according to the kind of waste and industry stated in the European Waste Catalogue.*

*Uncleaned packaging:*

*Dispose of according to official local regulations.*

*Do not puncture, cut or weld uncleaned drums. Risk of explosion.*

*Residues may cause an explosion hazard.*

*Waste Code No.:*

---

### 14. Transport Information

#### 14. 1. UN Number

*ADR, IMDG, IATA* 1170

#### 14. 2. UN Proper Shipping Name

*ADR/RID:* ETHANOL, LÖSUNG

*IMDG/IATA:* ETHANOL, SOLUTION

#### 14. 3. Transport Hazard Classes

*ADR Class:* 3

*Hazard no.:* 3

*Classification code:* F1

*Tunnel no.:* D/E

*IMDG Class (sea):* 3

*Hazard no.:* 3

*EmS No.:* F-E, S-D

*IATA Class:* 3

*Hazard no.:* 3

#### 14. 4. Packaging Group

*ADR/RID:* II

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*IMDG:* II

*IATA:* II

### 14. 5. Environmental Hazards

*Labelling according 5.2.1.8 ADR/RID: no*  
*Labelling according 5.2.1.6.3 IMDG: no*  
*Classification as environmentally hazardous according 2.9.3*  
*IMDG: no*

### 14. 6. Special Precautions for User

*not applicable*

### 14. 7. Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code

*IMDG: not applicable*

### 14. 8. Further Information

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## 15. Regulatory Information

### 15. 1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

*Water hazard class:*

*1, slightly hazardous for water*

*Local regulations on chemical accidents:*

*Underlies the Accident Ordinance 7b.*

*Employment restrictions:*

*The employment restrictions for expectant and nursing mothers in accordance with the Maternity Protection Guideline (94/85/EEC) are to be observed.*

*The employment restrictions for young workers in accordance with the Youth Employment Protection Law (94/33/EC) are to be observed.*

*Restriction and prohibition of application:*

*Ethanol:*

*EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles, Registered no. 40*

*Technical instructions on air quality:*

### 15. 2. Chemical Safety Assessment

*A Chemical Safety Assessment has been carried out for the component substances contained in this product.*

### 15. 3. Further Information

*Ethanol: EC. Regulation No. 1451/2007 (Biocide), Annex I, Substances identified as existing (OJ (L325). Registered under EC Number 200-578-6*

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## 16. Other Information

*This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.*