

# Safety Data Sheet

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



## 180410 Shellac Ink Solvent

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Revised edition: 01.06.2017

Version: 1

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

#### 1.1. Product Identifier

*Product Name:* Shellac Ink Solvent

*Article No.:* 180410

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

*Identified uses:*

Thinner

*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 Regulation (EC) No. 1272/2008 (CLP/GHS)*

Flammable liquids, hazard category 2  
Eye irritation, hazard category 2  
Specific Target Organ Toxicity (single exposure), hazard category 3

H225 Highly flammable liquid and vapour.

Cat.: 2

H319 Causes serious eye irritation.

Cat.: 2

H336 May cause drowsiness or dizziness.

Cat.: 3

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

Flammable (F) R11 Highly flammable

*Safety Phrases:*

*Possible Environmental Effects:*

See Section 12.

#### 2.2. Label Elements

*Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)*

*Hazard designation:*

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GHS02-2



GHS07

Signal word:

Danger

Hazard designation:

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Safety designation:

P210	Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing.
P403+P233	Store in a well ventilated place. Keep container tightly closed.

Hazardous components for labelling:

### 2.3. Other Hazards

## 3. Composition/Information on Ingredients

### 3.1. Substance

### 3.2. Mixture

Chemical Characterization:

Information on Components / Hazardous Ingredients:

Ethanol (F; R11; H225; 319); REACH Reg.-Nr. 01-2119457610-43	50 %	CAS-Nr: 64-17-5 EINECS-Nr: 200-578-6 EC-Nr: 603-002-00-5
Ethyl acetate (F,Xi; R11-36-66/67; H225-319-336); REACH Reg. No. 01-2119475103-46-xxxx	50 %	CAS-Nr: 141-78-6 EINECS-Nr: 205-500-4 EC-Nr: 607-022-00-5

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:

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*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 transportation.*

*After skin contact:*

*Remove contaminated clothing immediately. Wash off immediately with plenty of water and soap.*

*If irritation continues consult a physician.*

*After eye contact:*

*Rinse open eyes with plenty of water for at least 5 minutes.*

*Consult a physician immediately.*

*If possible bring to an eye clinic.*

*After ingestion:*

*Rinse mouth with water and give plenty of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.*

*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:*

*Inhalation: can cause pain in the nose and throat, coughing and headache.*

*Skin contact: degreases skin causing dry and rough skin. Prolonged contact may cause dermatitis.*

*Eye contact: burning*

*Effects:*

*No further information available.*

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

*Treatment:*

*Treat symptomatically.*

---

## 5. Fire-Fighting Measures

### 5.1. Extinguishing Media

*Suitable extinguishing media:*

*Foam, carbon dioxide (CO<sub>2</sub>), extinguishing powder, water spray jet.*

*Unsuitable extinguishing media:*

*Water with full jet.*

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

*Special hazards:*

*The vapor is heavier than air, spreads along the ground and distant ignition is possible.*

*Fumes can form an explosive mixture with air.*

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

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*Risk of bursting of closed containers due to strong heating.*

### 5.3. Advice for Firefighters

*Protective equipment:*

*Wear self-contained respiratory protective device.*

*Wear suitable protective clothing.*

*Further information:*

*Cool closed containers exposed to fire with water mist.*

*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.*

*Ensure adequate ventilation.*

*Keep away from sources of heat and ignition.*

*Avoid contact with skin and eyes. Do not ingest or inhale.*

### 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 non-flammable absorbent material (e.g. sand, diatomaceous earth, vermiculite) and dispose accordingly.*

### 6.4. Reference to other Sections

*Protective clothing, see Section 8.*

*See Section 13 for information on disposal.*

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## 7. Handling and Storage

### 7.1. Precautions for Safe Handling

*Instructions on safe handling:*

*Keep containers tightly closed.*

*Do not inhale vapors or mist.*

*A nearby eyewash facility should be available for emergencies.*

*Hygienic measures:*

*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 cool and well ventilated location.*

*Protect against heat and direct sunlight.*

*Do not store together with food stuff and animal feed.*

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*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.*

*Vapors may form an explosive mixture with air. Vapor is heavier than air and spreads along the ground.*

*Use only explosion protected devices.*

*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.*

## 8. Exposure Controls/Personal Protection

### 8.1. Parameters to be Controlled

*Parameters to be controlled (DE):*

*Ethyl acetate, CAS 141-78-6; TWA: 1500 mg/m<sup>3</sup>, 400 ppm (2(1)Y; DFG)*

*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.*

*Parameters to be controlled:*

*Derived No-Effect Level (DNEL):*

*Ethyl acetate (141-78-6):*

*1468 mg/m<sup>3</sup>, 400 ppm (worker, inhalation, acute effects - local effect)*

*63 mg/kg (worker, skin contact, chronic effect)*

*734 mg/m<sup>3</sup>, 200 ppm (worker, inhalation, chronic effects - local effect)*

*734 mg/m<sup>3</sup>, 200 ppm (consumer, inhalation, acute effects - local effect)*

*37 mg/kg (consumer, skin contact, chronic effects)*

*367 mg/m<sup>3</sup> (consumer, inhalation, chronic effects - local effect)*

*4.5 mg/kg (consumer, swallowing, chronic effects)*

*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 -*

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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):*

*Ethyl acetate:*  
*Fresh water: 0.26 mg/l*  
*Seawater: 0.026 mg/l*  
*Fresh water sediment: 0.34 mg/kg*  
*Seawater sediment: 0.034 mg/kg*  
*Soil: 0.22 mg/kg*  
*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*

*Additional Information:*

### 8.2. Exposure Controls

*Technical protective measures:*

*Provide adequate ventilation.*  
*Facilities storing or utilizing this material should be equipped with an eyewash facility.*

*Personal Protection*

*General protective measures:*

*Avoid contact with 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.*

*Respiratory protection:*

*Respiratory equipment required in case of insufficient ventilation, filter combination type A-P2.*

*Hand protection:*

*Protective gloves (EN 374)*

*Protective glove material:*

*Butyl rubber (> 60 min, 0.5 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, solvent resistant*

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### *Environmental precautions:*

*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

<i>Form:</i>	<i>liquid</i>
<i>Color:</i>	<i>colorless - yellowish</i>
<i>Odor:</i>	<i>alcohol-like</i>
<i>Odor threshold:</i>	<i>not determined</i>
<i>pH-Value:</i>	<i>not applicable</i>
<i>Melting temperature:</i>	<i>not determined</i>
<i>Boiling temperature:</i>	<i>not determined</i>
<i>Flash point:</i>	<i>12°C (Ethanol)</i>
<i>Evaporation rate:</i>	<i>No information available.</i>
<i>Flammability (solid, gas):</i>	<i>An explosive vapor/air mixture can be formed.</i>
<i>Upper explosion limit:</i>	<i>no information available</i>
<i>Lower explosion limit:</i>	<i>no information available</i>
<i>Vapor pressure:</i>	<i>not determined</i>
<i>Vapor density:</i>	<i>No information available.</i>
<i>Density:</i>	<i>not determined</i>
<i>Solubility in water:</i>	<i>No data available</i>
<i>Coefficient of variation (n-Octanol/Water):</i>	<i>not determined</i>
<i>Auto-ignition temperature:</i>	<i>No information available.</i>
<i>Decomposition temperature:</i>	<i>No data available.</i>
<i>Viscosity, dynamic:</i>	

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### *Explosive properties:*

*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:*

### *Solid content:*

### *Particle size:*

### *Other information:*

*No further information.*

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## 10. Stability and Reactivity

### 10.1. Reactivity

*Stable if used according to specifications.*

### 10.2. Chemical Stability

*No decomposition if used according to specifications.*

### 10.3. Possibility of Hazardous Reactions

*Reacts with strong oxidants.*

### 10.4. Conditions to Avoid

#### *Conditions to avoid:*

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

#### *Thermal decomposition:*

*No data available.*

### 10.5. Incompatible Materials

*Strong oxidizing agents.*

### 10.6. Hazardous Decomposition Products

*No information available.*

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

### 10.7. Further Information

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## 11. Toxicological Information

### 11.1. Information on Toxicological Effects

#### *Acute Toxicity*

#### *LD50, oral:*

*Ethyl acetate: 5600 mg/kg (rat)*

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

#### *LD50, dermal:*

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	<i>Ethyl acetate: &gt; 18000 mg/kg (rabbit)</i> <i>Ethanol (CAS 64-17-5): &gt; 2000 mg/kg (rabbit; OECD 402)</i>
<i>LC50, inhalation:</i>	<i>Ethyl acetate: 58 mg/kg (8h; rat)</i> <i>Ethanol (64-17-5): &gt; 20 mg/kg (4h, rat)</i>
<i>Primary effects</i>	
<i>Irritant effect on skin:</i>	<i>Ethyl acetate (141-78-6): prolonged/repeated contact may cause defatting of the skin which may cause dermatitis.</i> <i>Ethanol (64-17-5): no skin irritation (OECD 404)</i>
<i>Irritant effect on eyes:</i>	<i>Ethyl acetate (141-78-6): slight irritant effect (rabbit)</i> <i>Ethanol (64-17-5): can irritate eyes (OECD 405)</i>
<i>Inhalation:</i>	<i>No information available.</i>
<i>Ingestion:</i>	<i>No information available</i>
<i>Sensitization:</i>	<i>Ethyl acetate (141-78-6): not sensitizing (guinea pig; OECD 406).</i> <i>Ethanol (64-17-5): not sensitizing (OECD 429)</i>
<i>Mutagenicity:</i>	<i>Not sufficient information available.</i>
<i>Reproductive toxicity:</i>	<i>No relevant data found.</i>
<i>Carcinogenicity:</i>	<i>No relevant data found.</i>
<i>Teratogenicity:</i>	
<i>Specific target organ toxicity (STOT):</i>	<i>Repeated exposure: the substance or mixture is not classified as specific target organ toxicant.</i> <i>Repeated exposure: the substance or mixture is not classified as specific target organ toxicant.</i>
<i>Additional toxicological information:</i>	<i>Ethyl acetate:</i> <i>Inhalation of high vapor concentrations may cause headache, dizziness, tiredness, nausea and vomiting.</i> <i>Ethanol:</i> <i>Depending on the absorbed concentrations different states of intoxication is reached after an euphoric stage. Further symptoms are loss of self-control, dizziness, vomiting.</i>

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## 12. Ecological Information

### 12.1. Aquatic Toxicity

*Fish toxicity:*

*Ethyl acetate: LC50: 230 mg/l (96h; Pimephales promelas)*

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

*Daphnia toxicity:*

*Ethyl acetate: EC50: 717 mg/l (48h; Daphnia magna)*  
*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:*

*Ethyl acetate: EC10: 2900 mg/l (16h, Pseudomonas putida)*  
*Ethanol: EC50: 5800 mg/l (4h; Paramaecium caudatum)*

*Algae toxicity:*

*Ethyl acetate: EC50: 3300 mg/l (48h, Desmodesmus subspicatus)*  
*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

*Ethyl acetate:*  
*79 % (20d); readily biodegradable (OECD 301D)*  
*Ethanol: readily biodegradable (84 %, 20d).*

### 12. 3. Bioaccumulation

*Ethyl acetate:*  
*Bioconcentration factor (BCF): 30 (3d)*  
*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

*The contents of the preparation do not comply with the criteria for the classification as PBT or vPvB.*

### 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.*  
*Dispose of according to official national and local regulations.*

*European Waste Code (EWC):*

*Uncleaned packaging:*

*Empty container completely. Residues may cause an explosion hazard.*

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

*Waste Code No.:*

### 14. Transport Information

#### 14.1. UN Number

*ADR, IMDG, IATA* 1993

#### 14.2. UN Proper Shipping Name

*ADR/RID:* ENTZÜNDBARER FLÜSSIGER STOFF, N.A.G. (Ethanol)

*IMDG/IATA:* FLAMMABLE LIQUID, N.O.S. (Ethanol)

#### 14.3. Transport Hazard Classes

*ADR Class:* 3

*Hazard no.:* 3

*Classification code:* D/E

*Tunnel restriction code:* F1

*IMDG Class (sea):* 3

*Hazard no.:*

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

*IATA Class:* 3

*Hazard no.:* 3

#### 14.4. Packaging Group

*ADR/RID:* II

*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*

*Labelled with "P" according 2.10 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

### 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 (German Regulation)*

*Local regulations on chemical accidents:*

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### *Employment restrictions:*

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

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

### *Restriction and prohibition of application:*

*Ethyl acetate:*

*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

*Ethyl acetate is listed in:*

*EINECS (205-500-4), TSCA (US), AICS (AUS), DSL/INV (CA), ENCS/JEX/ISHL (JP; (2)-726), KECI (KR; KE-00047; 97-1-161), PICCS (PH), IECSC (CN)*

*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.*