

# Safety Data Sheet

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



## 70100 Citrus Turpentine

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Revised edition: 25.02.2022

Version: 7.0

Printed: 01.03.2022

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

#### 1.1. Product Identifier

*Product Name:* Citrus Turpentine

*Article No.:* 70100

*UFI:* --

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

*Identified uses:*

*Industrial application  
Use in mixtures.  
Formulation of fragrance products, scented oil.  
Production of cleaning and maintaining products.  
Formulation of cosmetics.  
Formulation of solvents.  
Formulation of chemicals for the construction industry.  
Industrial application of coatings and paint by spraying.  
Industrial application in paper, paper products, wooden products,  
footwear, leather products, textiles.*

*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.com

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

*Importer:* --

#### 1.4. Emergency No.

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

#### 1.4.2 Poison Center:

### 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 3  
Aspiration hazard, hazard category 1  
Skin irritation, hazard category 2  
Skin sensitization, hazard category 1  
Hazardous to the aquatic environment, chronic hazard category 2*

H226 Flammable liquid and vapour.

Cat.: 3

H304 May be fatal if swallowed and enters airways.

Cat.: 1

H315 Causes skin irritation.

Cat.: 2

H317 May cause an allergic skin reaction.

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Cat.: 1

H411

Toxic to aquatic life with long lasting effects.

Cat.: 2

*Possible Environmental Effects:*

See Section 12.

### 2.2. Label Elements

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

*Hazard designation:*



GHS02



GHS07



GHS08-2



GHS09

*Signal word:*

Danger

*Hazard designation:*

H226

Flammable liquid and vapour.

H304

May be fatal if swallowed and enters airways.

H315

Causes skin irritation.

H317

May cause an allergic skin reaction.

H411

Toxic to aquatic life with long lasting effects.

*Safety designation:*

P102

Keep out of reach of children.

P210

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

P241

Use explosion-proof electrical/ventilating/lighting equipment.

P262

Do not get in eyes, on skin, or on clothing.

P273

Avoid release to the environment.

P280

Wear protective gloves/ clothing/ eye/ face protection.

P301+P310

If swallowed: Immediately call a poison center or physician.

P303+P361+P353

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

P331

Do not induce vomiting.

P405

Store locked up.

P501

Dispose of contents/ container according to regional, national and international regulations.

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### Hazardous components for labelling:

Contains Citrus Turpentine

#### 2.3. Other Hazards

Vapors can cause an explosive mixture with air.  
Materials impregnated with oil may spontaneously combust after a long induction period due to gradual exothermic reaction with oxygen.

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### 3. Composition/Information on Ingredients

#### 3.1. Substance

#### 3.2. Mixture

*Chemical Characterization:* Orange, sweet, extract, contains > 93 % Limonene

*Information on Components / Hazardous Ingredients:*

D-Limonene (H226-304-315-317-400-412)	> 93 %	CAS-Nr: 5989-27-5 EINECS-Nr: 227-813-5 EC-Nr:
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Linalool; 3,7-Dimethyl-1,6-octadien-3-ol (H315-317-319); REACH Reg. No. 01-2119474016-42-xxxx	< 1 %	CAS-Nr: 78-70-6 EINECS-Nr: 201-134-4 EC-Nr:
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*Additional information:*

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### 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:*

In case of unconsciousness place patient stable in side position for transportation.

Supply fresh air. Consult physician if symptoms persist.

Oxygen therapy in case of impaired breathing.

*After skin contact:*

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

Do not use organic solvents.

*After eye contact:*

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

Consult physician.

*After ingestion:*

Rinse mouth with water and drink plenty of water.

Do not induce vomiting. Consult physician immediately.

Risk of aspiration!

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

**Most important Symptoms and Effects, both Acute and Delayed**

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4.2.

*Symptoms:*

*Skin contact: causes skin irritation. Can cause allergic skin reactions.*

*Swallowing: may be fatal if swallowed and enters the respiratory system.*

*Effects:*

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:*

*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:*

*Fluid and vapors are highly flammable.*

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

*Fumes can form an explosive mixture with air.*

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

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

5.3. Advice for Firefighters

*Protective equipment:*

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

*Further information:*

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

*Cool exposed containers with water mist.*

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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.*

*Do not inhale aerosol/fumes/vapors.*

6.2. Environmental Precautions

*Environmental precautions:*

*Prevent contamination of soils, drains and surface water.*

*Contact local authorities if product pollutes soil or vegetation.*

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### 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.*

*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.*

*Provide adequate ventilation.*

*Avoid contact with eyes and skin.*

*Hygienic measures:*

*Take off contaminated clothing immediately.*

*Do not inhale gas/fumes/vapours/aerosols.*

*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 containers in a well ventilated location.*

*Store in tightly sealed containers in a dry and cool room.*

*Protect from direct exposure to light.*

*Protect against heat.*

*Requirements for storage areas and containers:*

*Store the product in the original container.*

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

*Information on fire and explosion protection:*

*Do not store together with: strong acids and alkalis.*

*Do not store together with: oxidants.*

*Vapors may form an explosive mixture with air.*

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

*Storage class:*

*3; Flammable liquids (TRGS 510)*

*Further Information:*

### 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):*

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*Limonen (CAS 5989-27-5), TWA: 28 mg/m<sup>3</sup>, 5 ppm (long-term value); 112 mg/m<sup>3</sup>, 20 ppm (short-term value)*

*Parameters to be controlled:*

*Derived No-Effect Level (DNEL):*

*8.89 mg/kg bw/d (worker, skin contact, long-term exposure - systemic effects)*

*185.8 µg/cm<sup>2</sup> (worker, skin contact, short-term exposure - local effects)*

*31.1 mg/m<sup>3</sup> (worker, inhalation, long-term exposure - systemic effects)*

*4.44 mg/kg bw/d (consumer, swallowing/skin contact, long-term exposure - systemic effects)*

*92.9 µg/cm<sup>2</sup> (consumer, skin contact, short-term exposure - local effects)*

*7.78 mg/m<sup>3</sup> (consumer, inhalation, long-term exposure - systemic effects)*

*Predicted No-Effect Concentration (PNEC):*

*Fresh water: 5.4 µg/l*

*Sea water: 0.54 µg/l*

*Fresh water sediment: 1.3 mg/kg*

*Sea water sediment: 0.13 mg/kg*

*Sewage treatment system (STP): 2.1 mg/l*

*Soil: 0.261 mg/kg*

*Additional Information:*

### 8.2. Exposure Controls

*Technical protective measures:*

*Provide adequate ventilation.*

*Personal Protection*

*General protective measures:*

*Remove contaminated clothing immediately.*

*Do not inhale gas/fumes/vapor/aerosol.*

*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.*

*Respiratory protection:*

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

*Hand protection:*

*Protective gloves*

*Protective gloves should be changed regularly, especially after intensive contact with the product.*

*Protective glove material:*

*Nitrile rubber (> 480 min, 0.11 mm).*

*Eye protection:*

*Tightly fitting safety goggles (EN 166).*

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### Body protection:

*Protective clothing, chemical resistant.*

### Environmental precautions:

*Prevent contamination of open water ways and sewage system.  
Avoid contamination of ground water.  
Contact local authorities if large spillages cannot be contained.*

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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</i>
<i>Odor:</i>	<i>fruit-like</i>
<i>Odor threshold:</i>	<i>no information available</i>
<i>pH-Value:</i>	<i>not available</i>
<i>Melting temperature:</i>	<i>not available</i>
<i>Boiling temperature:</i>	<i>175 - 178°C</i>
<i>Flash point:</i>	<i>53.4°C</i>
<i>Evaporation rate:</i>	<i>No information available.</i>
<i>Flammability (solid, gas):</i>	<i>not applicable</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>1.865 hPa (25°C)</i>
<i>Vapor density:</i>	<i>No information available.</i>
<i>Density:</i>	<i>0.847 g/ml (20°C) 3.4834 - 1767.3 mg/l (25°C)</i>
<i>Solubility in water:</i>	<i>practically insoluble</i>
<i>Coefficient of variation (n-Octanol/Water):</i>	<i>&gt; 80 %, Product &gt;=4</i>
<i>Auto-ignition temperature:</i>	<i>235°C</i>
<i>Decomposition temperature:</i>	<i>No data available.</i>
<i>Viscosity, dynamic:</i>	<i>0.99 mPa.s</i>

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### *Explosive properties:*

*not available*

### *Oxidizing properties:*

*none*

### *Bulk density:*

*not applicable*

## 9.2. Further Information

### *Solubility in solvents:*

### *Viscosity, kinematic:*

*1.17 mm<sup>2</sup>/s*

### *Burning class:*

### *Solvent content:*

### *Solid content:*

### *Particle size:*

### *Other information:*

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## 10. Stability and Reactivity

### 10.1. Reactivity

*Flammable liquid and vapor.*

### 10.2. Chemical Stability

*Stable if used according to specifications.*

### 10.3. Possibility of Hazardous Reactions

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

*Spontaneous ignition is possible after contact mit contaminated clothes, textiles or similar materials.*

### 10.4. Conditions to Avoid

#### *Conditions to avoid:*

*Avoid heat, open fire and other ignition sources.*

*Avoid direct sunlight.*

#### *Thermal decomposition:*

*No data available.*

### 10.5. Incompatible Materials

*Strong acids, strong bases and strong oxidizing agents.*

### 10.6. Hazardous Decomposition Products

*In case of fire: formation of carbon oxides and other toxic gases and vapors.*

### 10.7. Further Information

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## 11. Toxicological Information

### 11.1. Information on Toxicological Effects

#### *Acute Toxicity*

#### *LD50, oral:*

*> 5000 mg/kg (rat)*

#### *Repeated dose toxicity:*

*LOAEL: 1000 mg/kg bw/d (mouse)*

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<i>LD50, dermal:</i>	<i>&gt; 5000 mg/kg (rabbit)</i>
<i>LC50, inhalation:</i>	<i>No information available.</i>
<i>Primary effects</i>	
<i>Irritant effect on skin:</i>	<i>May cause allergic reactions.</i>
<i>Irritant effect on eyes:</i>	<i>Non-irritating to eyes (rabbit; OECD 405)</i>
<i>Inhalation:</i>	<i>No information available.</i>
<i>Ingestion:</i>	<i>No information available</i>
<i>Sensitization:</i>	<i>May cause sensitization by skin contact.</i>
<i>Mutagenicity:</i>	<i>Does not contain any component classified as mutagenic.</i>
<i>Reproductive toxicity:</i>	<i>Does not contain any component classified as toxic for reproduction.</i>
<i>Carcinogenicity:</i>	<i>Does not contain any component classified as carcinogenic.</i>
<i>Teratogenicity:</i>	<i>NOAEL: 591 mg/kg bw/day (rat/mouse): not teratogenic</i> <i>Not teratogenic (rabbit)</i> <i>NOAEL: 250 mg/kg bw/day (maternal)</i> <i>NOAEL: 1000 mg/kg bw/day (developmental)</i>
<i>Specific target organ toxicity (STOT):</i>	<i>Single 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>Aspiration toxicity: may be fatal if swallowed and enters airways.</i>

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## 12. Ecological Information

### 12.1. Aquatic Toxicity

<i>Fish toxicity:</i>	<i>LC50: 0.7 mg/l (96h, Pimephales promelas; OECD 203)</i>
<i>Daphnia toxicity:</i>	<i>EC50: 0.67 mg/l (48h, Daphnia magna; OECD 202)</i>
<i>Bacteria toxicity:</i>	<i>not determined</i>
<i>Algae toxicity:</i>	

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*ErC50: 150 mg/l (72h, Desmodemus subspicatus; OECD 201)*

### 12.2. Persistency and Degradability

*72 - 83.4 % (28d); readily biodegradable (Method: OECD 301B)*

### 12.3. Bioaccumulation

*BCF: 1.502 - 2.597*

*Bioconcentration factor (BCF; oxygen-containing monoterpenoid, typically 13% orange oil (citrus dulcis)): 32 - 156*

*Bioconcentration factor (BCF; hydrocarbon terpene, typically 83% orange oil (citrus dulcis)): 261 - 395*

### 12.4. Mobility

*logKow: >= 4*

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

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

### 12.6. Other Adverse Effects

*Water hazard class:*

*2 (German Regulation) (Assessment by list): hazardous.*

*Behaviour in sewage systems:*

*Further ecological effects:*

*Do not let product enter waterways or sewage system.*

*Very toxic for water organisms. May cause long-term adverse effects in the aquatic environment.*

*AOX Value:*

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## 13. Disposal Considerations

### 13.1. Waste Treatment Methods

*Product:*

*Product must be incinerated with a regulatory approval.*

*European Waste Code (EWC):*

*140603\* - Other solvents and solvent mixtures*

*\* = Proof required for disposal*

*Uncleaned packaging:*

*Dispose of according to official local regulations.*

*Waste Code No.:*

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## 14. Transport Information

### 14.1. UN Number

*ADR, IMDG, IATA*

*2319*

### 14.2. UN Proper Shipping Name

*ADR/RID:*

*TERPENKOHLENWASSERSTOFFE, N.A.G. (Orangenterpene)*

*IMDG/IATA:*

*TERPENE HYDROCARBONS, N.O.S. (Orange terpene)*

### 14.3. Transport Hazard Classes

*ADR Class:*

*3*

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	<i>Hazard no.:</i>	3
	<i>Classification code:</i>	F1
	<i>Tunnel restriction code:</i>	D/E
	<i>IMDG Class (sea):</i>	3
	<i>Hazard no.:</i>	3
	<i>EmS No.:</i>	F-E, S-D
	<i>IATA Class:</i>	3
	<i>Hazard no.:</i>	3
14. 4.	<b>Packaging Group</b>	
	<i>ADR/RID:</i>	III
	<i>IMDG:</i>	III
	<i>IATA:</i>	III
14. 5.	<b>Environmental Hazards</b>	
		<i>Labelling according 5.2.1.8 ADR/RID: fish and tree</i>
		<i>Labelling according 5.2.1.6.3 IMDG: fish and tree</i>
		<i>Classification as environmentally hazardous according 2.9.3</i>
		<i>IMDG: yes</i>
		<i>Labelled with "P" according 2.10 IMDG: yes</i>
14. 6.	<b>Special Precautions for User</b>	
		<i>not applicable</i>
14. 7.	<b>Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code</b>	
		<i>IMDG: not applicable</i>
14. 8.	<b>Further Information</b>	
<b>15.</b>	<b>Regulatory Information</b>	
15. 1.	<b>Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture</b>	
	<i>Water hazard class:</i>	2, hazardous for water (German Regulation)
	<i>Local regulations on chemical accidents:</i>	Seveso-III Directive (2012/18/EU): P5a and E2
	<i>Employment restrictions:</i>	<i>The employment restrictions for expectant and nursing mothers in accordance with the Maternity Protection Guideline are to be observed.</i> <i>The employment restrictions for young workers in accordance with the Youth Employment Protection Law are to be observed.</i>
	<i>Restriction and prohibition of application:</i>	
	<i>Technical instructions on air quality:</i>	5.2.5.: Organic substances, class 1 5.2.5.: Organic substances: $m \geq 0.50$ kg/h: conc. 50 mg/m <sup>3</sup>
15. 2.	<b>Chemical Safety Assessment</b>	
		<i>A Chemical Safety Assessment has been carried out for this</i>

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*product.*

### 15.3. Further Information

*VOC-Content: 100 Wt-% = 847 g/l*

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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.*