

# Safety Data Sheet

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



## 70720 Acetyl Acetone

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Revised edition: 22.07.2018

Version: 12.7

Printed: 16.11.2020

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

#### 1.1. Product Identifier

*Product Name:* Acetyl Acetone

*Article No.:* 70720

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

*Identified uses:*  
Synthesis chemical

*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  
Acute toxicity (oral), hazard category 4  
Acute toxicity (dermal), hazard category 3  
Acute toxicity (inhalation), hazard category 3  
Flammable liquid and vapour.

H226  
Cat.: 3  
H302  
Cat.: 4  
H311  
Cat.: 3  
H331  
Cat.: 3

Harmful if swallowed.  
Toxic in contact with skin.  
Toxic if inhaled.

*Possible Environmental Effects:*

#### 2.2. Label Elements

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

*Hazard designation:*

GHS02

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GHS06-2

Signal word:

Danger

Hazard designation:

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.

Safety designation:

P210	Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P280a	Wear protective gloves/ clothing.
P302+P352	If on skin: Wash with soap and water.
P304+P340	If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308+P310	If exposed or you feel unwell: Immediately call a poison center or physician.

Hazardous components for labelling:

### 2.3. Other Hazards

## 3. Composition/Information on Ingredients

### 3.1. Substance

### 3.2. Mixture

Chemical Characterization: Acetyl acetone, ACAC

Information on Components / Hazardous Ingredients:

Pentan-2,4-dione (H226-302-311-331); REACH Reg. No. 01-2119458968-15-xxxx	100 %	CAS-Nr: 123-54-6 EINECS-Nr: 204-634-0 EC-Nr: 606-029-00-0
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Additional information:

## 4. First Aid Measures

### 4.1. Description of the First Aid Measures

General information:

First aiders have to protect themselves.

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

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*stopped.*

*After skin contact:*

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

*After eye contact:*

*Rinse open eyes with plenty of water. In case of discomfort seek medical help.*

*After ingestion:*

*Careful when vomiting. Risk of aspiration. Keep respiratory tract open.*

*Give active coal (20-40 g in 10% suspension) and immediately consult physician.*

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

*Symptoms:*

*Irritant effects, dizziness, headache, cough, nausea, breathlessness, unconsciousness, vomiting.*

*Effects:*

*No further information available.*

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

*Treatment:*

*Laxans: sodium sulfate (1 spoon / 250 ml H<sub>2</sub>O).*

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## 5. Fire-Fighting Measures

### 5.1. Extinguishing Media

*Suitable extinguishing media:*

*Foam, CO<sub>2</sub>, dry extinguishing powder.*

*Unsuitable extinguishing media:*

*None known.*

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

*Special hazards:*

*Combustible.*

*Vapor is heavier than air and spreads along the ground.*

*When heated an explosive mixture with air can be formed.*

*Formation of hazardous combustion gases or vapors possible in the event of fire.*

### 5.3. Advice for Firefighters

*Protective equipment:*

*Wear suitable protective clothing.*

*Wear self-contained respiratory protective device.*

*Further information:*

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

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

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## 6. Accidental Release Measures

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### 6. 1. Personal Precautions, Protective Equipment and Emergency Procedures

*Personal precautions:*

*Avoid contact with skin, eyes and clothing. Do not ingest or inhale.  
Do not inhale vapors or mist.  
Ensure adequate ventilation.  
Evacuate the danger area, observe emergency procedures,  
consult an expert.*

### 6. 2. Environmental Precautions

*Environmental precautions:*

*Do not discharge into drains; risk of explosion!  
Dilute with plenty of water.*

### 6. 3. Methods and Material for Containment and Cleaning Up

*Methods and material:*

*Cover drains. Collect, bind and pump off spills.  
Contain with absorbent material (sand, diatomaceous earth,  
universal absorbent, Oil Dri) and dispose accordingly.*

### 6. 4. Reference to other Sections

*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:*

*Provide adequate ventilation.*

*Hygienic measures:*

*Change contaminated clothing. Preventive skin protection  
recommended. Wash hands after work.*

### 7. 2. Conditions for Safe Storage, including any Incompatibilities

*Storage conditions:*

*Store in tightly sealed containers in a cool and well ventilated  
location.  
Store between 15-25°C.*

*Requirements for storage areas and  
containers:*

*No special measures necessary.*

*Information on fire and explosion  
protection:*

*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:*

*See Section 1.2.; no other uses provided*

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### 8. Exposure Controls/Personal Protection

#### 8.1. Parameters to be Controlled

*Parameters to be controlled (DE):*

TRGS 900

Pentane-2,4-dion (Acetylacetone): 30 ml/m<sup>3</sup>; 126 mg/m<sup>3</sup>; Y, H  
Peak limit category II (2)

*Parameters to be controlled:*

*Derived No-Effect Level (DNEL):*

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

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

7 mg/kg bw/d (consumer, swallowing, long-term exposure - systemic effects)

*Predicted No-Effect Concentration (PNEC):*

Fresh water: 0.2 mg/l

Sea water: 0.02 mg/l

Fresh water sediment: 1.909 mg/kg

Sea water sediment: 0.191 mg/kg

Intermittent release: 0.26 mg/l

Sewage treatment system (STP): 1.32 mg/l

Soil: 0.193 mg/kg

*Additional Information:*

#### 8.2. Exposure Controls

*Technical protective measures:*

Technical protective measures have priority to personal protective measures.

*Personal Protection*

*General protective measures:*

Remove contaminated clothing. Wash hands after work.

The usual precautionary measures are to be adhered to when handling chemicals.

*Respiratory protection:*

Respiratory equipment required in case of insufficient ventilation, filter type A.

*Hand protection:*

Protective gloves (EN 374)

*Protective glove material:*

For long-term exposure: butyl rubber (BTT>480 min, 0.7 mm).

For short-term exposure: nitrile rubber (30 min, 0.4 mm).

*Eye protection:*

Safety glasses (EN 166)

*Body protection:*

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

*Environmental precautions:*

*Do not allow entering sewerage system.*

*Risk of explosion.*

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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>putrid</i>
<i>Odor threshold:</i>	<i>No information available.</i>
<i>pH-Value:</i>	<i>6 (200 g/l H<sub>2</sub>O; 20°C)</i>
<i>Melting temperature:</i>	<i>-47.5 - -17.6°C (1013 hPa)</i>
<i>Boiling temperature:</i>	<i>139.5°C (1013 hPa; OECD 103)</i>
<i>Flash point:</i>	<i>35°C (956 hPa)</i>
<i>Evaporation rate:</i>	<i>No information available.</i>
<i>Flammability (solid, gas):</i>	<i>340°C</i>
<i>Upper explosion limit:</i>	<i>11.4 Vol.%</i>
<i>Lower explosion limit:</i>	<i>2.4 Vol.%</i>
<i>Vapor pressure:</i>	<i>ca. 7.9 hPa (20°C)</i>
<i>Vapor density:</i>	<i>3.5</i>
<i>Density:</i>	<i>0.97 g/cm<sup>3</sup> (20°C; OECD 114)</i>
<i>Solubility in water:</i>	<i>153.8 - 155.2 g/l (20°C)</i>
<i>Coefficient of variation (n-Octanol/Water):</i>	<i>0.68 logPOW (40°C)</i>
<i>Auto-ignition temperature:</i>	<i>No information available.</i>
<i>Decomposition temperature:</i>	<i>Easily distilled at base conditions without decomposition.</i>
<i>Viscosity, dynamic:</i>	<i>0.76 mPa.s (20°C) ca. 0.63 mPa.s (40°C)</i>
<i>Explosive properties:</i>	<i>not explosive</i>
<i>Oxidizing properties:</i>	<i>none</i>
<i>Bulk density:</i>	<i>not applicable</i>

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### 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

*Vapor/air mixtures are explosive when heated strongly.*

#### 10.2. Chemical Stability

*Stable at room temperature.*

#### 10.3. Possibility of Hazardous Reactions

*Vigorous reactions with acids, bases, amines, aldehydes, oxidizing agents, hydrogen fluorides, halogenated compounds, cyanides, isocyanates, alkalis.*

*Ignition hazard and formation of inflammable gases or vapors with: alkali metals, hydrides, nitrides.*

#### 10.4. Conditions to Avoid

*Conditions to avoid:*

*Protect from heat.*

*Thermal decomposition:*

*No data available.*

#### 10.5. Incompatible Materials

*Steel, zinc, copper, nickel, various alloys*

#### 10.6. Hazardous Decomposition Products

*Peroxides.*

*Fumes of zinc oxide.*

#### 10.7. Further Information

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### 11. Toxicological Information

#### 11.1. Information on Toxicological Effects

*Acute Toxicity*

*LD50, oral: 570 mg/kg (rat)*

*LD50, dermal: 790 mg/kg (rat)*

*LC50, inhalation: 5.4 mg/l (4h, rat)*

*Primary effects*

*Irritant effect on skin:*

*Non irritating (rabbit)*

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### *Irritant effect on eyes:*

*Non-irritating to eyes (rabbit)*

### *Inhalation:*

*No information available.*

### *Ingestion:*

*No information available*

### *Sensitization:*

*Non sensitizing (OECD 429, Mouse Local Lymph Node Assay (LLNA))*

### *Mutagenicity:*

*In vivo genetic-toxicity: micronucleus negative (rat m/f, inhalation; US-EPA)*  
*In vitro Mammalian Chromosomal Aberration Test (ovaries of the chin. hamster (CHO), OECD 473): positive*  
*In vitro Sister Chromatid Exchange Assay im Mammalian Cells (ovaries of the chinese hamster; OECD 479): positive*  
*In vitro Mammalian Cell Gene Mutation Test (OECD 476): negative*  
*Ames-Test negative (Salmonella typhimurium; OECD 471)*

### *Reproductive toxicity:*

*No information available.*

### *Carcinogenicity:*

### *Teratogenicity:*

*No information available.*

### *Specific target organ toxicity (STOT):*

*No relevant data found.*

### *Additional toxicological information:*

*Possible symptoms: headache, dizziness, breathlessness, apnea.*  
*Absorption: liver and kidneys can be affected.*

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## 12. Ecological Information

### 12.1. Aquatic Toxicity

#### *Fish toxicity:*

*LC50: 104 mg/l (96h, Pimephales promelas; OECD 203)*  
*NOEC: 10 mg/l (34d, Pimephales promelas; OECD 210)*

#### *Daphnia toxicity:*

*EC50: 25.9 mg/l (48h, Daphnia magna; OECD 202)*  
*NOEC: 18 mg/l (21d, Daphnia magna; OECD 211)*

#### *Bacteria toxicity:*

*EC50: 107.6 mg/l (3h, active sludge; OECD 209)*

#### *Algae toxicity:*

*ErC50: 83.22 mg/l (72h, Pseudokirchneriella subcapitata; OECD 201)*

### 12.2. Persistency and Degradability

*83-100 % (28d); readily biodegradable (Method: OECD 301C)*

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### 12.3. Bioaccumulation

*No bioaccumulation expected (log P(o/w) < 1).*

### 12.4. Mobility

*No information available.*

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

*PBT/vPvB assessment not available as chemical safety assessment is not required / not conducted.*

### 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:*

*BOD5: 5.6 mg/g*

*Surface tension: 72 mN/m (20°C; OECD 115)*

*AOX Value:*

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## 13. Disposal Considerations

### 13.1. Waste Treatment Methods

*Product:*

*Dispose of according to official national and local regulations.  
Follow the EC Waste Directive 2008/98/EEC.*

*European Waste Code (EWC):*

*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* 2310

### 14.2. UN Proper Shipping Name

*ADR/RID:* PENTAN-2,4-DION

*IMDG/IATA:* PENTANE-2,4-DIONE

### 14.3. Transport Hazard Classes

*ADR Class:* 3+6.1

*Hazard no.:* 3

*Classification code:* FT1

*Tunnel restriction code:* D/E

*IMDG Class (sea):* 3+6.1

*Hazard no.:* 3

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

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	<i>IATA Class:</i>	3+6.1
	<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>	
		None
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>not applicable</i>
14.8.	<b>Further Information</b>	

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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 (German Regulation, Assessment by list)*

*Local regulations on chemical accidents:*

*Seveso III:*

*Acute toxic (H2): Amount 1: 50 t; Amount 2: 200 t*

*Flammable liquids (P5c): Amount 1: 5000 t; Amount 2: 50000 t*

*Employment restrictions:*

*The employment restrictions for young workers in accordance with the Youth Employment Protection Law are to be observed.*

*The employment restrictions for expectant and nursing mothers in accordance with the Maternity Protection Guideline are to be observed.*

*Restriction and prohibition of application:*

*Technical instructions on air quality:*

### 15.2. Chemical Safety Assessment

*A Chemical Safety Assessment has not been carried out for this product.*

*EC SVHC-List: This product does not contain a substance in the candidate list for substances of very high concern above the legal limit value (> 0.1 % (w/w) REACH Regulation (EC) 1907/2006, Article 57).*

### 15.3. Further Information

*Regulation (EC) 1005/2009 - Substances that Deplete the Ozone Layer: not regulated / not applicable*

*Regulation (EC) 850/2004 - Persistent organic pollutants and amending Directive 79/117/EEC: not regulated / not applicable*

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## 16. Other Information

*This product should be stored, handled and used in accordance*

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*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.*