

# SAFETY DATA SHEET



**R00900 Acetylacetone>=99,5% PPA ,100LFL**

**000000020559**

Version 1.0

Revision Date 10/04/2016

Print Date 10/17/2019

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Acetylacetone

Number : 000000020559

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH  
Wunstorfer Straße 40  
Seelze, 30926

For more information call : 1-800-368-0050  
+1-231-726-3171  
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**  
: **Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**  
:  
: (24 hours/day, 7 days/week)

## SECTION 2. HAZARDS IDENTIFICATION

### Emergency Overview

Form : liquid

Color : colourless

Odor : characteristic

### Classification of the substance or mixture

Classification of the substance or mixture : Flammable liquids, Category 3  
Acute toxicity, Category 4, Oral  
Acute toxicity, Category 3, Inhalation  
Acute toxicity, Category 3, Dermal

### GHS Label elements, including precautionary statements

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Symbol(s)

:



Signal word

: Danger

Hazard statements

: Flammable liquid and vapour.  
Harmful if swallowed.  
Toxic in contact with skin or if inhaled

Precautionary statements

: **Prevention:**  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Call a POISON CENTER /doctor.  
Rinse mouth.  
Remove/Take off immediately all contaminated clothing.  
Wash contaminated clothing before reuse.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed.  
Keep cool.  
Store locked up.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

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## Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C<sub>5</sub>H<sub>8</sub>O<sub>2</sub>

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Pentane-2,4-dione; (Acetylacetone)	123-54-6	<=100.00 %

## SECTION 4. FIRST AID MEASURES

- General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.
- Inhalation : If breathed in, move person into fresh air. Call a physician immediately.
- Skin contact : After contact with skin, wash immediately with plenty of water. Call a physician immediately.
- Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. Remove contact lenses. Get medical attention immediately.
- Ingestion : When swallowed, allow water to be drunk. Call a physician immediately.

## SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

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- Specific hazards during firefighting : Flammable.  
Vapours may form explosive mixtures with air.  
Vapours are heavier than air and may spread along floors.  
Vapors may travel to areas away from work site before igniting/flashing back to vapor source.  
In case of fire hazardous decomposition products may be produced such as:  
carbon oxides (CO, CO<sub>2</sub> ).
- Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
- Further information : Use water spray to cool unopened containers.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Evacuate personnel to safe areas.  
Wear personal protective equipment. Unprotected persons must be kept away.  
Ensure adequate ventilation.  
Remove all sources of ignition.  
Avoid breathing dust.  
Avoid contact with skin, eyes and clothing.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.  
Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up : Ventilate the area.  
Do not use sparking tools.  
Use explosion-proof equipment.  
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

## SECTION 7. HANDLING AND STORAGE

### Handling

- Handling : Wear personal protective equipment.  
Use only in well-ventilated areas.  
Avoid inhalation, ingestion and contact with skin and eyes.

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Advice on protection against fire and explosion : Keep product and empty container away from heat and sources of ignition.  
No smoking.  
Take precautionary measures against static discharges.  
Vapours may form explosive mixtures with air.

**Storage**

Requirements for storage areas and containers : Store in area designed for storage of flammable liquids.  
Protect from physical damage.  
Store in original container.  
Keep containers tightly closed in a dry, cool and well-ventilated place.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.  
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.  
Avoid breathing dust.  
Avoid contact with skin, eyes and clothing.

Engineering measures : Use with local exhaust ventilation.  
Prevent vapour buildup by providing adequate ventilation during and after use.

Eye protection : Safety goggles

Hand protection : Impervious butyl rubber gloves  
Gloves must be inspected prior to use.  
Replace when worn.

Skin and body protection : Flame retardant antistatic protective clothing.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

**Exposure Guidelines**

Components	CAS-No.	Value	Control parameters	Update	Basis
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Pentane-2,4-dione; (Acetylacetone)	123-54-6	TWA : Time weighted average	(25 ppm)	12 2010	ACGIH:US. ACGIH Threshold Limit Values
Pentane-2,4-dione; (Acetylacetone)	123-54-6	SKIN_DE S : Skin designati on:	Can be absorbed through the skin.	12 2010	ACGIH:US. ACGIH Threshold Limit Values

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state	: liquid
Color	: colourless
Odor	: characteristic
pH	: 6 at 200.00 g/l, 20 °C
Melting point/range	: -23 °C
Boiling point/boiling range	: 139.5 °C at 1,013 hPa Method: 92/69/EEC, A.2
Flash point	: 95 °F (35 °C) Method: closed cup
Lower explosion limit	: 1.7 %(V)
Upper explosion limit	: 11.4 %(V)
Vapor pressure	: 7.9 hPa at 20 °C(68 °F)Method: 92/69/EEC, A.4  40.4 hPa at 50 °C(122 °F)Method: 92/69/EEC, A.4

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Density	: 0.97 g/cm <sup>3</sup> at 20 °C Method: 92/69/EEC, A.3
Water solubility	: 153.8 - 155.2 g/l at 20 °C Method: 92/69/EEC, A.6
Partition coefficient: n-octanol/water	: log Pow: 0.68 at 40 °C Method: 92/69/EEC, A.8
Ignition temperature	: Note: no data available
Auto-ignition temperature	: 390 °C at ca.961 hPa Method: 92/69/EEC, A.15
Decomposition temperature	: Note: No decomposition if used as directed.
Viscosity, dynamic	: 0.76 mPa.s at 20 °C 0.63 mPa.s at 40 °C
Molecular weight	: 100.12 g/mol

## SECTION 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Vapours may form explosive mixture with air. Hazardous polymerisation does not occur.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials to avoid	: Strong oxidizing agents Acids and bases Metals Alkali metals
Hazardous decomposition products	: In case of fire hazardous decomposition products may be produced such as: carbon oxides (CO, CO <sub>2</sub> ).

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**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity	: LD50: 570 - 760 mg/kg Species: Rat
Acute inhalation toxicity	: LC50: 5.1 mg/l , vapour Exposure time: 4 h Species: Rat Method: OECD Test Guideline 403
Acute dermal toxicity	: LD50: 790 - 1,370 mg/kg Species: Rabbit
Skin irritation	: Species: Rabbit Result: slight irritation Exposure time: 4 h
Eye irritation	: Species: Rabbit Result: slight irritation
Sensitisation	: Species: Mouse Result: non-sensitizing Method: OECD Test Guideline 429
Genotoxicity in vitro	: Note: Not classified due to data which are conclusive although insufficient for classification.

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

Toxicity to fish	: flow-through test LC50: 104 mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow) Method: OECD Test Guideline 203
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: flow-through test  
NOEC: 10 mg/l  
Exposure time: 34 d  
Species: Pimephales promelas (fathead minnow)  
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates : static test  
EC50: 25.9 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 202

Toxicity to algae : static test  
EC50: 83.22 mg/l  
Exposure time: 72 h  
Species: Pseudokirchneriella subcapitata (green algae)  
Method: OECD Test Guideline 201

Toxicity to bacteria : static test  
EC50: 107.6 mg/l  
Exposure time: 3 h  
Species: activated sludge  
Method: OECD Test Guideline 209

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : semi-static test  
NOEC: 18 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

## Elimination information (persistence and degradability)

Bioaccumulation : Note: no data available

Biodegradability : aerobic  
Result: Readily biodegradable  
Value: 83 - 100 %  
Method: OECD Test Guideline 301C

## Further information on ecology

Additional ecological information : Do not flush into surface water or sanitary sewer system.

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## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

## SECTION 14. TRANSPORT INFORMATION

**DOT** UN/ID No. : UN 2310  
Proper shipping name : PENTANE-2,4-DIONE  
Class : 3  
Packing group : III  
Hazard Labels : 3 (6.1)

**IATA** UN/ID No. : UN 2310  
Description of the goods : PENTANE-2,4-DIONE  
Class : 3  
Packaging group : III  
Hazard Labels : 3 (6.1)  
Packing instruction (cargo aircraft) : 366  
Packing instruction (passenger aircraft) : 355  
Packing instruction (passenger aircraft) : Y343

**IMDG** UN/ID No. : UN 2310  
Description of the goods : PENTANE-2,4-DIONE  
Class : 3  
Packaging group : III  
Hazard Labels : 3 (6.1)  
EmS Number : F-E, S-D  
Marine pollutant : no

## SECTION 15. REGULATORY INFORMATION

### Inventories

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act : On the inventory, or in compliance with the inventory

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- Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian DSL
- Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory
- Korea. Toxic Chemical Control Law (TCCL) List : On the inventory, or in compliance with the inventory
- Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act : On the inventory, or in compliance with the inventory
- China. Inventory of Existing Chemical Substances : On the inventory, or in compliance with the inventory
- New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory
- TSCA 12B : US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
- Pentane-2,4-dione; (Acetylacetone) 123-54-6

## National regulatory information

- SARA 302 Components** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- SARA 313 Components** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard

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**California Prop. 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**Massachusetts RTK** : Pentane-2,4-dione; 123-54-6  
(Acetylacetone)

**New Jersey RTK** : Pentane-2,4-dione; 123-54-6  
(Acetylacetone)

**Pennsylvania RTK** : Pentane-2,4-dione; 123-54-6  
(Acetylacetone)

**SECTION 16. OTHER INFORMATION**

	<b>HMIS III</b>	<b>NFPA</b>
Health hazard	: 2	2
Flammability	: 3	3
Physical Hazard	: 0	
Instability	:	0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group