







Trade name: %21',&998443

Version: 3 / US

Date revised: 01.02.2018

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Print date: 01.02.18

#### 6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

##### Advice on safe handling

Avoid formation of aerosols. Provide good ventilation of working area (local exhaust ventilation if necessary). Observe the usual precautions for handling chemicals. Keep container tightly closed.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Provide solvent-resistant and impermeable floor.

##### Hints on storage assembly

Do not store together with foodstuffs.

##### Further information on storage conditions

Protect from heat and direct sunlight. Keep container tightly closed and dry in a cool, well-ventilated place. Keep locked up and out of the reach of children.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

##### Other information

Contains no substances with occupational exposure limit values.

#### 8.2. Exposure controls

##### General protective and hygiene measures

Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Do not eat, drink or smoke during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

##### Respiratory protection

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Short term: filter apparatus, Filter A

##### Hand protection

Chemical resistant gloves	
Use	Short-term hand contact
Appropriate Material	nitrile
Material thickness	>= 0,4 mm
Breakthrough time	> 480 min

##### Eye protection

Safety glasses with side protection shield; Face shield

##### Body protection

Clothing as usual in the chemical industry. Protective shoes

### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Form	liquid
Colour	colourless
Odour	characteristic

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**Odour threshold**

Remarks not determined

**pH value**

Remarks not determined

**Melting point**

Remarks not determined

**Freezing point**

Remarks not determined

**Initial boiling point and boiling range**

Remarks not determined

**Flash point**

Value > 100 °C

**Evaporation rate (ether = 1) :**

Remarks not determined

**Flammability (solid, gas)**

not determined

**Upper/lower flammability or explosive limits**

Remarks not determined

**Vapour pressure**

Remarks not determined

**Vapour density**

Remarks not determined

**Density**

Value appr. 1,1 g/cm<sup>3</sup>

**Solubility in water**

Remarks not determined

**Solubility(ies)**

Remarks not determined

**Partition coefficient: n-octanol/water**

Remarks not determined

**Ignition temperature**

Remarks not determined

**Decomposition temperature**

Remarks not determined

**Viscosity**

dynamic

**Explosive properties**

evaluation not determined

**Oxidising properties**

Remarks not determined

**9.2. Other information**

**Other information**

None known

**SECTION 10: Stability and reactivity**

Trade name: BONDIC 5998443

Version: 3 / US

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Replaces Version: 2 / US

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### 10.1. Reactivity

No hazardous reactions when stored and handled according to prescribed instructions.

### 10.2. Chemical stability

No hazardous reactions known.

### 10.3. Possibility of hazardous reactions

No hazardous reactions known.

### 10.4. Conditions to avoid

No hazardous reactions known.

#### Decomposition temperature

Remarks not determined

### 10.5. Incompatible materials

None known

### 10.6. Hazardous decomposition products

Toxic gases/vapours, Irritant gases/vapours

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### National Toxicology Program (NTP)

Components: 1,4-Dihydroxybenzene

#### International Agency for research on Cancer (IARC)

Components: 1,4-Dihydroxybenzene

#### Acute oral toxicity

ATE	3.636,05	mg/kg
	32	

Method calculated value according to GHS (e.g see UN GHS)

#### Acute oral toxicity (Components)

##### 1-Vinylhexahydro-2H-azepin-2-one

Species	rat	
LD50	1860	mg/kg

##### 1-Vinylhexahydro-2H-azepin-2-one

Species	rat	
LD50	1114	mg/kg

##### 2-Hydroxy-2-methylpropiophenone

Species	rat	
LD50	1694	mg/kg

#### Acute dermal toxicity

Remarks not determined

#### Acute dermal toxicity (Components)

##### 1-Vinylhexahydro-2H-azepin-2-one

Species	rat	
LD50	> 2000	mg/kg

##### 2-Hydroxy-2-methylpropiophenone

Species	rat	
LD50	6929	mg/kg

#### Acute inhalational toxicity

Remarks not determined

#### Acute inhalative toxicity (Components)

Trade name: BONDIC 5998443

Version: 3 / US

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Replaces Version: 2 / US

Print date: 01.02.18

**1-Vinylhexahydro-2H-azepin-2-one**

Species	rat			
LC50	>	1,6		mg/l
Duration of exposure		8	h	

**Skin corrosion/irritation**

Remarks not determined

**Serious eye damage/irritation**

Remarks not determined

**Sensitization**

Remarks not determined

**Sensitization (Components)**

**1-Vinylhexahydro-2H-azepin-2-one**

Route of exposure	dermal
Species	mouse
evaluation	sensitizing

**2-Hydroxy-2-methylpropiophenone**

Route of exposure	dermal
Species	guinea pig
evaluation	non-sensitizing

**Subacute, subchronic, chronic toxicity**

Remarks not determined

**Mutagenicity**

Remarks not determined

**Reproductive toxicity**

Remarks not determined

**Carcinogenicity**

Remarks not determined

**Specific Target Organ Toxicity (STOT)**

Remarks not determined

**Experience in practice**

Inhalation may lead to irritation of the respiratory tract.

**Other information**

No toxicological data are available.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**General information**

not determined

**Fish toxicity (Components)**

**1-Vinylhexahydro-2H-azepin-2-one**

Species	zebra fish (Brachydanio rerio)			
LC50		318		mg/l
Duration of exposure		96	h	

**2-Hydroxy-2-methylpropiophenone**

Species	golden orfe (Leuciscus idus)			
LC50		160		mg/l
Duration of exposure		48	h	

**Daphnia toxicity (Components)**

Trade name: BONDIC 5998443

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**1-Vinylhexahydro-2H-azepin-2-one**

Species	Daphnia magna		
EC50	> 100		mg/l
Duration of exposure	48	h	

**2-Hydroxy-2-methylpropiophenone**

Species	Daphnia magna		
EC50	> 119		mg/l
Duration of exposure	48	h	

**Algae toxicity (Components)**

**1-Vinylhexahydro-2H-azepin-2-one**

Species	Scenedesmus subspicatus		
EC50	> 100		mg/l
Duration of exposure	72	h	

**2-Hydroxy-2-methylpropiophenone**

Species	Scenedesmus subspicatus		
EC50	1,95		mg/l
Duration of exposure	72	h	

**2-Hydroxy-2-methylpropiophenone**

Species	Scenedesmus subspicatus		
EC10	0,629		mg/l
Duration of exposure	72	h	

**Bacteria toxicity (Components)**

**1-Vinylhexahydro-2H-azepin-2-one**

Species	activated sludge		
EC50	622		mg/l
Duration of exposure	16	h	

**12.2. Persistence and degradability**

**General information**

not determined

**12.3. Bioaccumulative potential**

**General information**

not determined

**Partition coefficient: n-octanol/water**

Remarks not determined

**12.4. Mobility in soil**

**General information**

not determined

**12.5. Results of PBT and vPvB assessment**

**General information**

not determined

**12.6. Other adverse effects**

**General information**

not determined

**General information / ecology**

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

**SECTION 13: Disposal considerations**



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### 13.1. Waste treatment methods

#### Disposal recommendations for the product

Dispose of waste according to applicable legislation.

#### Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

## **SECTION 14: Transport information \*\*\***

### Ground transport DOT \*\*\*

Non-dangerous goods

### Marine transport IMDG/GGVSee

The product does not constitute a hazardous substance in sea transport.

### Air transport ICAO/IATA

The product does not constitute a hazardous substance in air transport.

## **SECTION 15: Regulatory information**

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Other information

All components are contained in the TSCA inventory or exempted.

#### US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355)

Components: 1,4-Dihydroxybenzene

#### US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

Components: 1,4-Dihydroxybenzene

#### Clean Water Act (CWA) Section 307 Toxic Pollutants (40 CFR 401.15)

The product does not contain any listed components.

#### Clean Water Act (CWA) Section 311 Toxic Pollutants (40 CFR 116.4)

The product does not contain any listed components.

#### Clean Air Act (CAA) Section 112 Regulated Toxic Substances And Threshold Quantities For Accidental Release Prevention (40 CFR 68.130 Table 1+2)

Components: 1,4-Dihydroxybenzene

#### Clean Air Act (CAA) Section 112 Regulated Flammable Substances And Threshold Quantities For Accidental Release Prevention (40 CFR 68.130 Table 3+4)

The product does not contain any listed components.

#### California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

Warning! This product may contain trace quantities of substance(s) known to the state of California to cause cancer and/or reproductive toxicity - not added as a part of the formulation but remaining as residuals from the manufacturing process of our raw material suppliers.

#### NFPA Rating Information

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Replaces Version: 2 / US

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**HMIS<sup>®</sup> Rating Information**

Health	*	1
Flammability		1
Physical Hazard		
Personal Protection		

**SECTION 16: Other information**

**Department issuing safety data sheet**

Department product safety

**Supplemental information**

Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*  
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.