

## Safety Data Sheet acc. to OSHA HCS

Printing date 08/25/2018

Reviewed on 03/31/2018

### 1 Identification

- **Product identifier**
- **Trade name: 2-Acetyl Furan synthetic**
- **Product number:** 4029
- **CAS Number:**  
1192-62-7
- **EC number:**  
214-757-1
- **Application of the substance / the mixture** Food flavorings

- **Details of the supplier of the safety data sheet**

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- **Manufacturer/Supplier:**

Advanced Biotech  
 10 Taft Road  
 Totowa, NJ 07512 USA

- **Information department:**

Product Safety Department  
 productsafety@adv-bio.com

- **Emergency telephone number:**

1(800)535-5053 (Info Trac)  
 1(352)323-3500 (International)  
 During normal business hours: 1(973)339-6242

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.

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- **Label elements**

- **GHS label elements**

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.

The substance is classified and labeled according to the Globally Harmonized System (GHS).

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**Trade name: 2-Acetyl Furan synthetic**

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· **Hazard pictograms**



GHS06

· **Signal word** Danger

· **Hazard-determining components of labeling:**

2-furyl methyl ketone

· **Hazard statements**

H300 Fatal if swallowed.

H311+H331 Toxic in contact with skin or if inhaled.

· **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P301+P310 If swallowed: Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 4

Fire = 2

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

HEALTH 3

Health = 3

FIRE 2

Fire = 2

REACTIVITY 0

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

1192-62-7 2-furyl methyl ketone

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- **Identification number(s)**
- **EC number:** 214-757-1

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
 Immediately remove any clothing soiled by the product.  
 Remove breathing apparatus only after contaminated clothing have been completely removed.  
 In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**  
 Supply fresh air or oxygen; call for doctor.  
 In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**  
 No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
 No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
 CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.
- **Additional information**  
 Cool endangered receptacles with water spray.  
 Collect contaminated fire fighting water separately. It must not enter the sewage system.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
 Dispose contaminated material as waste according to item 13.  
 Ensure adequate ventilation.
- **Reference to other sections**  
 See Section 7 for information on safe handling.  
 See Section 8 for information on personal protection equipment.  
 See Section 13 for disposal information.

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**· Protective Action Criteria for Chemicals**

**· PAC-1:**

Substance is not listed.

**· PAC-2:**

Substance is not listed.

**· PAC-3:**

Substance is not listed.

**7 Handling and storage**

**· Handling:**

**· Precautions for safe handling**

Thorough dedusting.  
 Ensure good ventilation/exhaustion at the workplace.  
 Open and handle receptacle with care.

**· Information about protection against explosions and fires:**

Keep respiratory protective device available.

**· Conditions for safe storage, including any incompatibilities**

**· Storage:**

**· Requirements to be met by storerooms and receptacles:** No special requirements.

**· Information about storage in one common storage facility:** Not required.

**· Further information about storage conditions:** Keep receptacle tightly sealed.

**· Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

**· Additional information about design of technical systems:** No further data; see item 7.

**· Control parameters**

**· Components with limit values that require monitoring at the workplace:** Not required.

**· Additional information:** The lists that were valid during the creation were used as a basis.

**· Exposure controls**

**· Personal protective equipment:**

**· General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Store protective clothing separately.  
 Avoid contact with the eyes and skin.

**· Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

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**Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material should be based on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**Penetration time of glove material**

The exact break through time has to be determined by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Not required.

### 9 Physical and chemical properties

**Information on basic physical and chemical properties**

**General Information**

**Appearance:**

<b>Form:</b>	Solid or liquid
<b>Color:</b>	According to product specification
<b>Odor:</b>	According to product specification
<b>Odor threshold:</b>	Not determined.

**pH-value:** Not applicable.

**Change in condition**

<b>Melting point/Melting range:</b>	29-30 °C (84.2-86 °F)
<b>Boiling point/Boiling range:</b>	67 °C (152.6 °F)

**Flash point:** 71 °C (159.8 °F)

**Flammability (solid, gaseous):** Product is not flammable.

**Decomposition temperature:** Not determined.

**Auto igniting:** Not determined.

**Danger of explosion:** Product does not present an explosion hazard.

**Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

**Vapor pressure:** Not applicable.

**Density at 20 °C (68 °F):** 1.098 g/cm<sup>3</sup> (9.16281 lbs/gal)

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- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>· <b>Relative density</b></li> <li>· <b>Vapor density</b></li> <li>· <b>Evaporation rate</b></li> </ul>  | <ul style="list-style-type: none"> <li>Not determined.</li> <li>Not applicable.</li> <li>Not applicable.</li> </ul>                       |
| <ul style="list-style-type: none"> <li>· <b>Solubility in / Miscibility with Water:</b></li> </ul>  | <ul style="list-style-type: none"> <li>Insoluble.</li> </ul>  |
| <ul style="list-style-type: none"> <li>· <b>Partition coefficient (n-octanol/water):</b> Not determined.</li> </ul>   |   |
| <ul style="list-style-type: none"> <li>· <b>Viscosity:</b></li> <li style="padding-left: 20px;">Dynamic:</li> <li style="padding-left: 20px;">Kinematic:</li> <li style="padding-left: 20px;">VOC content:</li> </ul> | <ul style="list-style-type: none"> <li>Not applicable.</li> <li>Not applicable.</li> <li>0.00 %</li> <li>0.0 g/l / 0.00 lb/gal</li> </ul> |
| <ul style="list-style-type: none"> <li>· <b>Solids content:</b></li> <li>· <b>Other information</b></li> </ul>  | <ul style="list-style-type: none"> <li>100.0 %</li> <li>No further relevant information available.</li> </ul>                             |

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

**ATE (Acute Toxicity Estimate)**

Oral	LD50	5 mg/kg
Dermal	LD50	300 mg/kg
Inhalative	LC50/4 h	0.5 mg/l

**CAS: 1192-62-7 2-furyl methyl ketone**

Oral	LD50	5 mg/kg (ATE)
Dermal	LD50	300 mg/kg (ATE)
Inhalative	LC50/4 h	0.5 mg/l (ATE)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.

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- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

Substance is not listed.

· **NTP (National Toxicology Program)**

Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 1 (Self-assessment): slightly hazardous for water  
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA** UN2811

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· **UN proper shipping name**  
 · **DOT** Toxic solids, organic, n.o.s.  
 · **ADR** 2811 Toxic solids, organic, n.o.s.  
 · **IMDG, IATA** TOXIC SOLID, ORGANIC, N.O.S.

· **Transport hazard class(es)**

· **DOT**



· **Class** 6.1 Toxic substances

· **ADR**



· **Class** 6.1 (T2) Toxic substances

· **IMDG, IATA**



· **Class** 6.1 Toxic substances

· **Packing group**

· **DOT, ADR, IMDG, IATA** II

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user** Warning: Toxic substances

· **Stowage Category** B

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 25 kg  
 On cargo aircraft only: 100 kg

· **ADR**

· **Excepted quantities (EQ)**

Code: E4  
 Maximum net quantity per inner packaging: 1 g  
 Maximum net quantity per outer packaging: 500 g

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- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul> | 500 g<br>Code: E4<br>Maximum net quantity per inner packaging: 1 g<br>Maximum net quantity per outer packaging: 500 g |
| <ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>  | UN 2811 TOXIC SOLIDS, ORGANIC, N.O.S., 6.1, II  |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

· **TSCA (Toxic Substances Control Act):**

Substance is listed.

· **TSCA new (21st Century Act) (Substances not listed)**

CAS: 1192-62-7 | 2-furyl methyl ketone

· **Proposition 65**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **GHS label elements**

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.

The substance is classified and labeled according to the Globally Harmonized System (GHS).

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**Trade name: 2-Acetyl Furan synthetic**

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· **Hazard pictograms**



GHS06

· **Signal word** Danger

· **Hazard-determining components of labeling:**

2-furyl methyl ketone

· **Hazard statements**

H300 Fatal if swallowed.

H311+H331 Toxic in contact with skin or if inhaled.

· **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P301+P310 If swallowed: Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product Safety Department

· **Contact:**

Product Safety Department  
 productsafety@adv-bio.com

· **Date of preparation / last revision** 08/25/2018 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

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OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Acute Tox. 2: Acute toxicity – Category 2  
Acute Tox. 3: Acute toxicity – Category 3

US