1 Identification

- Product identifier
  - Trade name: 6-Methyl coumarin synthetic
  - Product number: 2078
  - CAS Number: 92-48-8
  - EC number: 202-158-8
- Application of the substance / the mixture Food flavorings

2 Hazard(s) identification

- Classification of the substance or mixture
  - GHS06 Skull and crossbones
  - Acute Tox. 3 H301 Toxic if swallowed.

- 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).
Hazard pictograms

Signal word Danger

Hazard-determining components of labeling:
6-methylcoumarin

Hazard statements
H301 Toxic if swallowed.

Precautionary statements
P264 Wash thoroughly after handling.
P301+P310 If swallowed: Immediately call a poison center/doctor.
P321 Specific treatment (see on this label).
P330 Rinse mouth.
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 = 2
Fire = 1
Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = 2
Fire = 1
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
92-48-8 6-methylcoumarin

Identification number(s)

EC number: 202-158-8
4 First-aid measures

· Description of first aid measures
  · General information:
    Immediately remove any clothing soiled by the product.
    In case of irregular breathing or respiratory arrest provide artificial respiration.
  · After inhalation: 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:
    CO2, powder or alcoholresistant foam.
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
    Use fire fighting measures that suit the environment.
  · Special hazards arising from the substance or mixture
    No further relevant information available.
  · Advice for firefighters
  · Protective equipment: No special measures required.
  · 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.
  · 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.
  · Protective Action Criteria for Chemicals
    · PAC-1:
      Substance is not listed.
    · PAC-2:
      Substance is not listed.
Trade name: 6-Methyl coumarin synthetic

7 Handling and storage

- Handling:
  - Precautions for safe handling: Thorough dedusting.

- Information about protection against explosions and fires: No special measures required.

- 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
  - 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.

- Breathing equipment: Not required.

- Protection of hands:
  - 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 breakdown 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:**
      - **Form:** Solid
      - **Color:** According to product specification
    - **Odor:** According to product specification
    - **Odor threshold:** Not determined.
    - **pH-value:** Not applicable.
  - **Change in condition**
    - **Melting point/Melting range:** 75-76 °C (167-168.8 °F)
    - **Boiling point/Boiling range:** 303 °C (577.4 °F)
  - **Flash point:** >110 °C (>230 °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:**
    - **Lower:** Not determined.
    - **Upper:** Not determined.
  - **Vapor pressure:** Not applicable.
  - **Density:** Not determined.
  - **Relative density:** Not determined.
  - **Vapor density:** Not applicable.
  - **Evaporation rate:** Not applicable.
  - **Solubility in / Miscibility with**
    - **Water:** Insoluble.
  - **Partition coefficient (n-octanol/water):** Not determined.
  - **Viscosity:**
    - **Dynamic:** Not applicable.
    - **Kinematic:** Not applicable.
    - **VOC content:**
      - 0.00 %
      - 0.0 g/l / 0.00 lb/gal
  - **Solids content:** 100.0 %
  - **Other information**
    - No further relevant information available.

# 10 Stability and reactivity

- **Reactivity**
  - No further relevant information available.
Safety Data Sheet
acc. to OSHA HCS

Printing date 08/24/2018
Reviewed on 03/31/2018

Trade name: 6-Methyl coumarin synthetic

- 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 100 mg/kg
      - CAS: 92-48-8 6-methylcoumarin
        - Oral LD50 100 mg/kg (ATE)
    - Primary irritant effect:
      - on the skin: No irritant effect.
      - on the eye: No irritating effect.
    - 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.

(Continued on page 7)
Trade name: 6-Methyl coumarin synthetic

(Continuation of page 6)

- 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

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<th>· UN proper shipping name</th>
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<th>· Packing group</th>
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| · Environmental hazards:                       |
| Marine pollutant:                              |
| No                                            |

| · Special precautions for user                 |
|                                              |
| Not applicable.                               |

| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code |
| Not applicable.                                                                |

| · Transport/Additional information:           |
| Not dangerous according to the above specifications. |

| · UN "Model Regulation":                     |
| Not Regulated                                 |

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.                        |

(Continued on page 8)
Safety Data Sheet
acc. to OSHA HCS

Trade name: 6-Methyl coumarin synthetic

· **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: 92-48-8 6-methylcoumarin

· **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).

· **Hazard pictograms**

  ![GHS06](image)

· **Signal word** Danger

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

· **Hazard statements**
  H301 Toxic if swallowed.

· **Precautionary statements**
  P264 Wash thoroughly after handling.
  P301+P310 If swallowed: Immediately call a poison center/doctor.
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 08/24/2018 / -
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
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Tox. 3: Acute toxicity – Category 3