

# Material Safety Data Sheet

## DI-3-(alpha-acetonyl-4'-chlorobenzyl)- 4-hydroxycoumarin, 98%

ACC# 58371

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** DI-3-(alpha-acetonyl-4'-chlorobenzyl)- 4-hydroxycoumarin, 98%

**Catalog Numbers:** AC183050000, AC183050010, AC183050050

**Synonyms:** p-Chlorowarfarin; 3-(alpha-acetonyl-p-chlorobenzyl)-4-hydroxycoumarin; 3-(alpha-acetonyl-4-chlorobenzyl)-4-hydroxycoumarin; 2h-1-benzopyran-2-one, 3-(1-(4-chlorophenyl)-3-oxobutyl)-4-hydroxy-; Coumachlor; 4-hydroxy-3-(1-(4-chlorophenyl)-3-oxobutyl)-2h-1-benzopyran-2-one.

**Company Identification:**

Acros Organics N.V.  
One Reagent Lane  
Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

| CAS#    | Chemical Name                                                | Percent | EINECS/ELINCS |
|---------|--------------------------------------------------------------|---------|---------------|
| 81-82-3 | DL-3-(alpha-Acetonyl-4'-chlorobenzyl)-4-hydroxycoumarin, 98% | 98.0    | 201-378-1     |

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: white solid.

**Danger!** Highly toxic. Harmful if swallowed. May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

**Target Organs:** Blood.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:** May cause respiratory tract irritation.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Extinguishing Media:** In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: ; Flammability: ; Instability:

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Wash hands before eating. Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

| Chemical Name                                              | ACGIH       | NIOSH       | OSHA - Final PELs |
|------------------------------------------------------------|-------------|-------------|-------------------|
| DL-3-(alpha-Acetyl-4'-chlorobenzyl)-4-hydroxycoumarin, 98% | none listed | none listed | none listed       |

**OSHA Vacated PELs:** DL-3-(alpha-Acetyl-4'-chlorobenzyl)-4-hydroxycoumarin, 98%: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** white

**Odor:** Not available.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** 168.00 - 170.00 deg C

**Decomposition Temperature:** Not available.

**Solubility:** practically insoluble

**Specific Gravity/Density:** Not available.

**Molecular Formula:** C<sub>19</sub>H<sub>15</sub>ClO<sub>4</sub>

**Molecular Weight:** 342.77

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, dust generation.

**Incompatibilities with Other Materials:** Strong oxidizing agents - strong bases.

**Hazardous Decomposition Products:** Hydrogen chloride, carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 81-82-3: GN4830000

### LD50/LC50:

**CAS#** 81-82-3:

Oral, mouse: LD50 = 392 mg/kg;

Oral, rat: LD50 = 187 mg/kg;

Skin, rat: LD50 = 33 mg/kg;

### Carcinogenicity:

**CAS#** 81-82-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** No information found

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** No information found.

**Physical:** No information found.

**Other:** No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

|                       | US DOT                        | Canada TDG                |
|-----------------------|-------------------------------|---------------------------|
| <b>Shipping Name:</b> | TOXIC SOLIDS, ORGANIC, N.O.S. | No information available. |
| <b>Hazard Class:</b>  | 6.1                           |                           |
| <b>UN Number:</b>     | UN2811                        |                           |
| <b>Packing Group:</b> | I                             |                           |

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 81-82-3 is not listed on the TSCA inventory. It is for research and development use only.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 81-82-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

T

#### Risk Phrases:

R 25 Toxic if swallowed.

R 48/25 Toxic : danger of serious damage to health by prolonged exposure if swallowed.

#### Safety Phrases:

S 37 Wear suitable gloves.

#### WGK (Water Danger/Protection)

CAS# 81-82-3: No information available.

#### Canada - DSL/NDSL

None of the chemicals in this product are listed on the DSL or NDSL list.

#### Canada - WHMIS

WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

|                                     |
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| Section 16 - Additional Information |
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**MSDS Creation Date:** 2/24/1999

**Revision #3 Date:** 10/03/2005

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*