



Health	3
Fire	0
Reactivity	0
Personal Protection	E

Material Safety Data Sheet

3-alpha-Acetylbenzyl)-4-hydroxycoumarin MSDS

Section 1: Chemical Product and Company Identification

Product Name: 3-alpha-Acetylbenzyl)-4-hydroxycoumarin

Catalog Codes: SLA3268

CAS#: 81-81-2

RTECS: Not available.

TSCA: TSCA 8(b) inventory: 3-alpha-Acetylbenzyl)-4-hydroxycoumarin

CI#: Not available.

Synonym: Warfarin, Warficide, Warfarat, Solfarin, Rodafarin, Ro-Deth, Rat-ola, Rat-kill, Rat-Mix, Liquatox, Coumadin, Coumarins, Coumafen, Athrombin-K; 1-(4'-Hydroxy-3'-coumarinyl)-1-phenyl-3-butanone; 2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-(9CI); 3-(1'-Phenyl-2'-acetyethyl)-4-hydroxycoumarin; 3-(Acetylbenzyl)-4-hydroxycoumarin; 3-(alpha-Acetylbenzyl)-4-hydroxycoumarin

Chemical Name: Courmarin, 3-(alpha-acetylbenzyl)-4-hydroxy-

Chemical Formula: C₁₉H₁₆O₄

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
{3-alpha-}Acetylbenzyl)-4-hydroxycoumarin	81-81-2	100

Toxicological Data on Ingredients: 3-alpha-Acetylbenzyl)-4-hydroxycoumarin: ORAL (LD50): Acute: 1.6 mg/kg [Rat]. 3 mg/kg [Mouse]. 180 mg/kg [Guinea pig]. DERMAL (LD50): Acute: 1400 mg/kg [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (permeator), of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant). Severe over-exposure can result in death.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Classified POSSIBLE for human. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female [POSSIBLE]. The substance may be toxic to kidneys, liver. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4: First Aid Measures**Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill:

Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:

Keep locked up.. Do not ingest. Do not breathe dust. Avoid contact with skin. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids, alkalis.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 0.1 (mg/m³) from OSHA (PEL) [United States] TWA: 0.1 (mg/m³) from ACGIH (TLV) [United States] TWA: 0.1 (mg/m³) from NIOSH [United States] TWA: 0.1 STEL: 0.3 (mg/m³) [Canada]³ Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Powdered solid.)

Odor: Odorless.

Taste: Tasteless.

Molecular Weight: 308.33 g/mole

Color: White.

pH (1% soln/water): Not available.

Boiling Point: Not available.

Melting Point: 161°C (321.8°F)

Critical Temperature: Not available.

Specific Gravity: Not available.

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, methanol, acetone.

Solubility:

Soluble in acetone. Partially soluble in cold water, methanol. Very slightly soluble in diethyl ether. Moderately solubility in ethanol, isopropanol, some oils. Freely soluble in alkaline aqueous solutions. Practically insoluble in cyclohexane, skellysolves. Solubility in water: 1.7 mg/100 ml water @ 20 deg. C. Solubility in benzene: 0.3%. Solubility in acetone: 6.5 g/100 ml @ 20 deg. C. Solubility in Chloroform: 5.6 g/100 ml @ 20 deg. C. Solubility in dioxane: 10 g/100 ml @ 20 deg. C. Solubility up to 40% in water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, acids, alkalis.

Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Inhalation. Ingestion.

Toxicity to Animals:

Acute oral toxicity (LD50): 1.6 mg/kg [Rat]. Acute dermal toxicity (LD50): 1400 mg/kg [Rat].

Chronic Effects on Humans:

TERATOGENIC EFFECTS: Classified POSSIBLE for human. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female [POSSIBLE]. May cause damage to the following organs: kidneys, liver.

Other Toxic Effects on Humans:

Very hazardous in case of skin contact (permeator), of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May cause adverse reproductive effects and birth defects (teratogenic)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May cause skin irritation. It can be absorbed through intact skin. Toxic if absorbed through the skin. Eyes: May cause eye irritation. Inhalation: Harmful if inhaled. Ingestion: Toxic if swallowed. May be fatal if swallowed. May cause ulceration or bleeding from the small intestine. May affect the blood (hemorrhage, change in clotting factors, normocytic anemia, changes in red blood cell count), vascular system, behavior/central nervous system/nervous system (somnolence, muscle weakness), respiration (dyspnea), urinary system (hematuria). General symptoms of poisoning which begin after a few days or weeks of repeated exposure (ingestion), include epistaxis (nosebleed), bleeding gums, pallor, petechial rash, and hematomas around the joints, or on the buttocks, blood in the urine and feces. Bleeding may be initiated by normal movement of muscles and organs, or may occur spontaneously in organs which do not have substantial movement.

Other symptoms back pain, bleeding lips, mucous membrane hemorrhage, abdominal pain, vomiting, paralysis due to cerebral hemorrhage, and finally hemorrhagic shock and death may occur. Chronic Potential Health Effects:

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: CLASS 6.1: Poisonous material.

Identification:

: Coumarin derivative, pesticides, solid, toxic, n.o.s (3-(alpha-acetonylbenzyl)-4-hydroxycoumarin) UNNA: 3027 PG: I

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin Connecticut hazardous material survey.: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin Illinois toxic substances disclosure to employee act: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin Illinois chemical safety act: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin New York release reporting list: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin Rhode Island RTK hazardous substances: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin Pennsylvania RTK: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin Minnesota: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin Massachusetts RTK: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin Massachusetts spill list: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin New Jersey: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin New Jersey spill list: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin Louisiana RTK reporting list: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin Louisiana spill reporting: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin California Director's List of Hazardous Substances: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin TSCA 8(b) inventory: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin TSCA 5(a)2 proposed significant rules: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin TSCA 12(b) annual export notification: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin SARA 302/304/311/312 extremely hazardous substances: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin SARA 313 toxic chemical notification and release reporting: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin CERCLA: Hazardous substances.: 3-alpha-Acetonylbenzyl)-4-hydroxycoumarin

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).

DSCL (EEC):

R25- Toxic if swallowed. R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R61- May cause harm to the unborn child. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S53- Avoid exposure - obtain special instructions before use. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 0

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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