

9-606

96-1.79-s0609F11.ps



SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 06/09/2006
Date Updated: 01/30/2006
Version 1.40

Section 1 - Product and Company Information

Product Name: Corticosterone, minimum 92%
Product Number: C2505
Brand: Sigma Chemical

Company: Sigma-Aldrich
Street Address: 3050 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 800-325-5832
Fax: 800-325-5052

Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

Table with 5 columns: Substance Name, CAS #, SARA 313, EC no, Annex I Index Number. Row 1: CORTICOSTERONE, 50-22-6, No, 200-019-6

Formula: C21H30O4
Synonyms: Compound B, Corticosteron, 17-Deoxycortisol, 11-beta,21-Dihydroxypregn-3,20-dione, (11-beta)-11,21-Dihydroxypregn-4-ene-3,20-dione, 11,12-Dihydroxyprogesterone, 11-beta,21-Dihydroxyprogesterone, 11-Hydroxycorticoidosterone, Kendall's compound B, 4-Pregnene-11-beta,21-diol-3,20-dione, Pregn-4-ene-3,20-dione, 11,21-dihydroxy-, (11-beta)- (9CI), Pregn-4-ene-3,20-dione, 11-beta,21-dihydroxy-, Reichstein's substance H

Section 3 - Hazards Identification

Emergency Overview: Irritant. May cause sensitization by skin contact.

HMIS Rating: Health: 3, Flammability: 0, Reactivity: 1

NFPA Rating: Health: 3, Flammability: 0, Reactivity: 1

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure: If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A

Extinguishing Media: Suitable. Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s): Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up: Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling: User Exposure. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage: Suitable. Keep tightly closed.

Special Requirements: Light sensitive.

Section 8 - Exposure Controls / PPE

Engineering Controls: Mechanical exhaust required.

Personal Protective Equipment: Respiratory. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.
Other: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

General Hygiene Measures

Wash thoroughly after handling. Wash contaminated clothing before reuse.

Section 9 - Physical/Chemical Properties

Appearance	
Physical State	Color
Solid	Very faintly yellow

Molecular Weight: 346.47 AMU

pH	N/A
BP/BP Range	N/A
MP/MP Range	179 °C
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Partition Coefficient	N/A
Decomposition Temp.	N/A
Flash Point °F	N/A
Flash Point °C	N/A

Explosion Limits N/A

Flammability	N/A
Autoignition Temp	N/A
Optical Rotation	Degree of Rotation: +271 - +223 (+/-2)
Solubility	N/A

Solvent: EtOH10 g/l

N/A = not available

Section 10 - Stability and Reactivity**Stability**Stable
Stable.**Conditions of Instability**

Light sensitive.

Materials to Avoid

Oxidizing agents.

Hazardous Decomposition Products**Hazardous Decomposition Products**

Carbon monoxide, Carbon dioxide.

Hazardous Polymerization
Hazardous Polymerization
Will not occur.**Section 11 - Toxicological Information****Route of Exposure****Skin Contact**

May cause skin irritation.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

May cause eye irritation.

Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion

May be harmful if swallowed.

Sensitization**Skin**

May cause allergic skin reaction.

Signs and Symptoms of Exposure

Exposure can cause: Nausea, dizziness, and headache.

RTECS Number: GM7650000

Chronic Exposure - Carcinogen

Result: Some steroids show carcinogenic and teratogenic activity.

Chronic Exposure - Teratogen

<u>Species</u>	<u>Dose</u>	<u>Route of Application</u>	<u>Exposure Time</u>
Rat	14 MG/KG	Intraperitoneal	(19-20D PREG)
		Result: Specific Developmental Abnormalities: Respiratory system. Effects on Newborn: Growth statistics (e.g., reduced weight gain).	
Rat	525 MG/KG	Subcutaneous	(12-18D PREG)
		Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Endocrine system.	
Rat	500 MG/KG	Subcutaneous	(8-17D PREG)
		Result: Specific Developmental Abnormalities: Craniofacial (including nose and tongue).	
Mouse	100 MG/KG	Subcutaneous	(13D PREG)
		Result: Specific Developmental Abnormalities: Craniofacial (including nose and tongue).	
Hamster	40 MG/KG	Intramuscular	(11D PREG)
		Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).	
Hamster	80 MG/KG	Intramuscular	(11D PREG)
		Result: Specific Developmental Abnormalities: Craniofacial (including nose and tongue).	

Chronic Exposure - Mutagen

<u>Species</u>	<u>Dose</u>	<u>Cell Type</u>	<u>Mutation test</u>
Human	2 MMOL/L	liver	DNA
Rat	100 NMOL/L	Other cell types	DNA inhibition
Chicken	1500 PMOL/L	Embryo	DNA inhibition

Chronic Exposure - Reproductive Hazard

<u>Species</u>	<u>Dose</u>	<u>Route of Application</u>	<u>Exposure Time</u>
		Result: Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.	
Rat	2400 UG/KG	Subcutaneous	(11-18D PREG)
		Result: Effects on Newborn: Other neonatal measures or effects.	
Rat	84 MG/KG	Subcutaneous	(16-22D PREG)
		Result: Effects on Newborn: Behavioral.	

Mouse 1472 MG/KG Intraperitoneal (11-14D PREG)
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).
Specific Developmental Abnormalities: Craniofacial (including nose and tongue).
Mouse 400 MG/KG Subcutaneous (11-14D PREG)
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).
Specific Developmental Abnormalities: Craniofacial (including nose and tongue).
Mouse 400 MG/KG Intramuscular (11-14D PREG)
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).
Specific Developmental Abnormalities: Craniofacial (including nose and tongue).

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: Xi

Indication of Danger

Irritant.

Risk Statements R: 43

May cause sensitization by skin contact.

Safety Statements S: 36

Wear suitable protective clothing.

US Classification and Label Text

Indication of Danger

Irritant.

Risk Statements

May cause sensitization by skin contact.

Safety Statements

Wear suitable protective clothing.

United States Regulatory Information

SARA Listed: No

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2006 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.