



## Material Safety Data Sheet

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### HYDROCORTISONE

#### IDENTIFICATION

**Common Name:** Hydrocortisone

**Chemical Name:** Pregn-4-ene-3, 20-dione,11,17,21-trihydroxy-, (11beta)-

**Synonym:** Cortisol; Hydrocortone

**Formula:** C<sub>21</sub>H<sub>30</sub>O<sub>5</sub>

**CAS Number:** 50-23-7

**RTECS Number:** GM8925000

**Chemical Family:** Corticosteroid

**Therapeutic Category:** Glucocorticoid

#### INGREDIENT INFORMATION

<u>Principle Components</u>	<u>Percent</u>	<u>Exposure Limits</u>
Hydrocortisone	Pure Material	n/f

#### HEALTH HAZARD INFORMATION

**Usual Adult Dose:** The usual oral adult dose of hydrocortisone is 20 to 240 mg/day as a single dose or in divided doses. This material may also be applied topically, to the skin as a 0.25 to 2.5% cream one to four times a day.

**Adverse Effects:** Toxic signs and symptoms rarely occur with administration of less than 3 weeks duration; even a massive single dose of this material is unlikely to cause adverse effects. If they do occur, adverse effects may include decreased or blurred vision, frequent urination, increased thirst, increased appetite, indigestion, nervousness or restlessness, and trouble sleeping. Possible allergic reaction to material if inhaled, ingested or in contact with skin.

**Overdose Effects:** n/f

**Acute:** Possible eye, skin, gastrointestinal and/or respiratory tract irritation.

**Chronic:** Possible hypersensitization, acne or other skin problems, hip or shoulder pain, fullness in face, swelling of feet or lower legs, menstrual irregularities, nausea, vomiting, irregular heartbeat, muscle cramps, weakness, osteoporosis, increased susceptibility to infection, psychosis, and eye problems.

**Inhalation:** May cause irritation. Avoid inhalation. Remove to fresh air.

**Eye:** May cause irritation. Flush with copious quantities of water.

n/f = not found

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## HYDROCORTISONE

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### HEALTH HAZARD INFORMATION CONTINUED

**Skin:** May cause irritation. Flush with copious quantities of water. Hydrocortisone can be absorbed through the skin in sufficient amounts to cause systemic effects, especially if skin is broken or exposure is extensive.

**Ingestion:** May cause irritation. Flush out mouth with water. This material is readily absorbed from the gastrointestinal tract.

**Medical Conditions Aggravated by Exposure:** Hypersensitivity to material, ocular herpes simplex, active alcoholism, AIDS or HIV infection, heart disease or hypertension, diabetes mellitus, myasthenia gravis, impaired liver or kidney function, esophagitis, gastritis or peptic ulcer, chickenpox or measles (including recent exposure), tuberculosis, and systemic fungal infections.

**Cross Sensitivity:** n/f

**Pregnancy Comments:** Although adequate and well-controlled pregnancy studies have not been done in humans, there is some evidence that pharmacologic doses of corticosteroids may increase the risk of placental insufficiency, decreased birth weight, or stillbirth. However, teratogenic effects in humans have not been confirmed. Studies in animals have shown that corticosteroids increase the incidence of cleft palate, placental

**Pregnancy Category:** C

### FIRST AID MEASURES

**General:** Remove from exposure. Remove contaminated clothing. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. If person is not breathing give artificial respiration. If breathing is difficult give oxygen. Obtain medical attention.

**Overdose Treatment:** Treatment for acute overdose is symptomatic and supportive, including fluids for dilution. Antacids may be used to relieve gastrointestinal irritation. Psychic disturbances (which may be delayed for up to 2 weeks following large ingestions) are treatable with a phenothiazine or lithium. Tricyclic antidepressants should not be used. [USP DI 18th ed. 1998]

### TOXICOLOGICAL INFORMATION

**Oral Rat:** LD50: >5000 mg/kg

**Oral Mouse:** LD50: n/f

**Irritancy Data:** n/f

**Target Organ(s):** Eyes.

**Listed as a Carcinogen?** NTP: No

IARC: No

OSHA: No

**Other:** No

n/f = not found

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## HYDROCORTISONE

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### FIREFIGHTING MEASURES

**Flash Point:** n/f

**Upper Flammable Limit:** n/f

**Auto-Ignition Temperature:** n/f

**Lower Flammable Limit:** n/f

**Extinguisher Media:** Water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials.

**Fire and Explosion Hazards:** This material is assumed to be combustible. As with all dry powders it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential buildup of static electricity.

**Firefighting Procedures:** As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.

### PHYSICAL HAZARDS

**Conditions to Avoid:** n/f

**Incompatibilities:** Alkalis and strong acids.

**Decomposition Products:** When heated to decomposition material emits toxic fumes. Emits toxic fumes under fire conditions

**Stable?** Yes

**Hazardous Polymerization?** No

### HANDLING / SPILL / DISPOSAL MEASURES

**Handling:** As a general rule, when handling USP Reference Standards avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Wash thoroughly after handling.

**Storage:** Store in tight container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity.

### HANDLING / SPILL / DISPOSAL MEASURES CONTINUED

**Spill Response:** Wear approved respiratory protection, chemically compatible gloves and protective clothing. Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately labeled container for disposal. Wash spill site.

**Disposal:** Dispose of waste in accordance with all applicable Federal, State and local laws.

### EXPOSURE CONTROLS / PERSONAL PROTECTION

**Respiratory Protection:** When working with small quantities in a well-ventilated area, respiratory protection may not be required. The use of an approved dust mask is recommended.

**Ventilation:** No special ventilation requirements.

**Gloves:** Rubber

**Eye Protection:** Safety Glasses

**Protective Clothing:** Protect exposed skin.

n/f = not found

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**HYDROCORTISONE**

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<b>PHYSICAL AND CHEMICAL PROPERTIES</b>
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**Appearance and Odor:** White or practically white crystalline powder; odorless.

**Melting Point:** 217 - 220° C (decomposes)

**Solubility in Water:** Very slightly soluble

**Boiling Point:** n/f

**Specific Gravity:** n/f

**Vapor Pressure:** n/f

**Vapor Density:** n/f

**Evaporation Rate:** n/f

**Reactivity in Water:** n/f

**% Volatile by Volume:** n/f

**n/f = not found**