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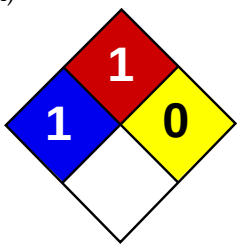

Health	1
Fire	1
Reactivity	0
Personal Protection	E

Material Safety Data Sheet
Prednisone MSDS

Section 1: Chemical Product and Company Identification

Product Name: Prednisone

Catalog Codes: SLP4597, SLP1771

CAS#: 53-03-2

RTECS: TU4154100

TSCA: TSCA 8(b) inventory: Prednisone

CI#: Not available.

Synonym: 17,21-Dihydroxypregna-1,4-diene-3,11,20-trione; 1,3-Dehydrocortisone; 1,4-Pregnadiene-17-alpha,21-diol-3,11,20-trione; 1-Dehydrocortisone; Ancortone; Bicortone; Colisone; Cortan; Decortin; Delta cortelan; delta-Cortisone; delta-Cortone; Deltacortisone; Deltacortone; Prednison; Prednizon; Precort

Chemical Name: Pregna-1,4-diene-3,11,20-trione, 17,21-hydroxy-

Chemical Formula: C21H26O5

Contact Information:

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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Prednisone	53-03-2	100

Toxicological Data on Ingredients: Not applicable.

Section 3: Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:
Slightly hazardous in case of skin contact (sensitizer). CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.

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. WARM water MUST be used. Get medical attention if irritation occurs.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact: Not available.

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

Serious Inhalation: Not available.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO2).

Fire Hazards in Presence of Various Substances: Slightly flammable to flammable in presence of heat.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Slightly explosive in presence of open flames and sparks.

Fire Fighting Media and Instructions:
SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards:
Material in powder form, capable of creating a dust explosion. As with most organic solids, fire is possible at elevated temperatures

Special Remarks on Explosion Hazards:
Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Section 6: Accidental Release Measures

Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:
Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not breathe dust. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Keep away from incompatibles such as oxidizing agents.

Storage:
Keep container tightly closed. Keep container in a cool, well-ventilated area. Material should be stored at a temperature less than 40 deg C., preferably between 15-30 deg. C.

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: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Solid crystalline powder.)

Odor: Odorless.

Taste: Bitter. Aftertaste.

Molecular Weight: 358.43 g/mole

Color: White or nearly white.

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

Boiling Point: Not available.

Melting Point: Decomposition temperature: 230°C (446°F) - 235 C.

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: Not available.

Solubility:
Very slightly soluble in cold water. Slightly soluble in methanol. 1 g soluble in 150 ml alcohol. 1 g soluble in 200 ml chloroform.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, incompatible materials.

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals:
LD50: Not available. LC50: Not available.

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:
May cause adverse reproductive effects and cancer based on animal test data. May affect genetic material (mutagenic). Human: small amount excreted in maternal milk.

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: May cause skin irritation. May cause skin sensitization, an allergic reaction. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause gastritis with nausea, vomiting, abdominal distention, ulcerative esophagitis, increased sweating. May affect metabolism and cause disturbance of electrolyte balance which is manifest in the retention of sodium and water, with edema and hypertension, and in the increased excretion of potassium with the possibility of hypokalaemic alkalosis. Cardiac faillure may be induced in sensitive individuals. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may cause sensitization, an allergic reaction. Eyes: Prolonged contact with eyes may affect vision (cataracts) Inhalation/Ingestion: May cause anaphylaxis, an allergic reaction. Prolonged or repeated inhalation or ingestion of corticosteroids may also cause thinning of the skin, inpaired wound healing and other dermatologic reactions (erythema, petechiae and ecchymoses). Ingestion: Prolonged or repeated ingestion of corticosteroids may cause nausea, vomiting, abdominal distention, peptic ulcer with possible perforation and hemorrhage, possible hypersensitization, swelling of the feet and lower legs due to electrolyte imbalance and sodium retention, irregular hearbeat, acute adrenal insufficiency, osteoporosis, muscle weakness, loss of muscle mass, vertebral compression fractures, pathologic fracture of long bones, aseptic necrosis of femoral and humeral heads, effect glucose tolerance (causing decreased carbohydrate tolerance resulting in manifestations of latent Diabetes melliltus, increased requirements for insulin or oral hypoglycemifcagents in diabetes), the liver, pancreas (pancreatitis), eyes/vision (cataracts, glaucoma, increased intraocular pressure), behavior/central nervous system/nervous system (mental disturbances such as psychosis, euphoria, depression, vertigo, headache, convulsions, increased intracranial pressure with papilledema). It may also effect the immune system (immunosuppressant). Repeated large doses of corticosteroids may produce Cushingoid symptoms typical of hyperactivity of the adrenal cortex, with moon-face, sometimes hirsutism, buffalo hump, flushing, increased bruising, ecchymoses, striae, and acne. Medical Conditions Aggravated by Exposure: Hypersensivity to material, ocular herpes simplex, active alcoholism, AIDS or HIV infection, heart disease or hypertension, diabetes mellitus, myasthenia gravis, impaired kidney or liver

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 product itself and its products of degradation are not toxic.

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: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations:
New Jersey: Prednisone TSCA 8(b) inventory: Prednisone

Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):
Not available Not applicable.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

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

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

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

Section 16: Other Information

References:
-Manufacturer's Material Safety Data Sheet. -Physician's GenRx - Drug Information, 1995. -Hazardous Substance Data Bank (HSDB) -Registry of Toxic Effects of Chemical Substances (RTECS). -New Jersey Hazardous Substance Fact Sheet. -Martindale

Other Special Considerations: Not available.

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