

**Section 1: Identification**

**Product Name** Testosterone USP Micronized  
**Commercial Name** Not available.  
**Product Use** Active Pharmaceutical Ingredient (API)  
**Restrictions On Use** Not available.

**Product Code** 23-1027

**Company** PCCA  
9901 South Wilcrest  
Houston, TX 77099  
Phone: 1-800-331-2498  
Fax: 1-800-874-5760

In case of emergency contact:  
**CHEMTREC (24hr) 1-800-424-9300**

**Section 2: Hazard(s) Identification**

**OSHA Haz Com:** Acute toxicity ( oral), Category 4 H302 Carcinogenicity, Category 2 H351 Reproductive toxicity, Category 2 H361 Hazardous to the aquatic environment – Acute Hazard, Category 1 H400 Full text of H- and EUH-statements: see section 16

**Signal Word** WARNING

**Hazard Statement(s)** H302 - Harmful if Swallowed. H351 - Suspected of causing cancer. H361 - Suspected of damaging fertility or the unborn child. H400 - Very toxic to aquatic life.

**Pictogram(s) or Symbol(s)**



**Precautionary Statement(s):**

**Prevention** P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe dust/fume/gas/mist/vapours/ spray. P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

**Response** P308+ P313 - IF exposed or concerned: Get medical advice/ attention.

**Storage** Store locked up.

**Disposal** P273 - Avoid release to the environment.

**Section 3: Composition/Information on Ingredients**

**Substance/Mixture** Mono- constituent  
**Components** Testosterone  
**% By Weight** 100  
**CAS#** 58-22-0  
**Molecular Weight** 288.4g/mole  
**Chemical Formula** C19-H28-O2  
**Synonym(s)**

**Mixtures**

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Testosterone	58-22-0	<=100%		

**Section 4: First-Aid Measures**

<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician. Give artificial respiration if necessar.
<b>Skin Contact</b>	First rinse with plenty of water. Remove contaminated clothing, then rinse again with water. Call a doctor.
<b>Eye Contact</b>	Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Call a doctor.
<b>Ingestion</b>	If swallowed, rinse mouth with water ( only if the person is conscious). Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.
<b>Symptoms/Effects</b>	
<b>Acute</b>	The most important known symptoms and effects are described in the labeling ( see section 2.2) and/or in section 11.
<b>Delayed</b>	The most important known symptoms and effects are described in the labeling ( see section 2.2) and/or in section 11.
<b>Immediate Medical Attention</b>	Treat symptomatically.

**Section 5: Fire-Fighting Measures****Suitable Extinguishing Media**

Water spray. Carbon dioxide. Dry chemical powder. Appropriate foam. Avoid high pressure media that could lead to the formation of a potential explosive mixture of dust and air.

**Unsuitable Extinguishing Media**

Not available.

**Products of Combustion**

Toxic fumes may be released.

**Firefighters Special Equipment and Precautions**

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. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

**Section 6: Accidental Release Measures**

Use personal protective equipment as required. Avoid formation of dust. Ensure adequate ventilation. Evacuate area. Protective equipment : Wear recommended personal protective equipment. Emergency procedures : Avoid breathing dust, mist or spray. No flames, no sparks. Eliminate all sources of ignition. Ensure adequate ventilation. Evacuate personnel to safe areas. Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/ personal protection".

**Section 7: Handling and Storage**

Minimize dust generation and accumulation. Avoid breathing dust. Avoid contact with eyes, skin and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls. Technical measures : Does not require any specific or particular technical measures. Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

**Section 8: Exposure Controls/Personal Protection**

<b>Exposure Limits</b>	TWA 0.9 micrograms/m <sup>3</sup> T
<b>Engineering Controls</b>	Engineering controls should be used as the primary means to control workplace exposures. General room ventilation is adequate unless the process generates dust, mist, or fumes. Keep airborne contamination levels below the OEL.

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**Personal Protection**

Eye protection: Protective goggles ( EN 166) Skin and body protection: Wear suitable protective clothing Hand protection: Protective gloves. Rubber gloves, according to EU Directive 89/686/EEC and the standard EN374 derived from it. Respiratory protection: An exposure risk assessment should be done in order to choose appropriate respiratory protection. If the applicable Occupational Limit Exposure OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL. Use respirators and components tested and approved under appropriate government standards such as NIOSH ( US) or CEN (EU).

**Section 9: Physical and Chemical Properties**

<b>Appearance</b>	White. Almost White Crystalline Solid.		
<b>Odor</b>	Not available.		
<b>Odor Threshold</b>	Not available.		
<b>Melting Point</b>	307.4 - 314.6 °F (153 - 157 °)	<b>pH</b>	Not available.
<b>Freezing Point</b>	Not available.	<b>Vapor Pressure</b>	< 0.0000001 kPa at 25 °C
<b>Boiling Point/Range</b>	Not available.	<b>Vapor Density</b>	Not available.
<b>Decomposition temperature</b>	Not available.	<b>Viscosity</b>	Not available.
<b>Partition Coefficient: n-octanol/water</b>	3.32	<b>Evaporation Rate</b>	Not available.
<b>Flash Point</b>	Not available	<b>Autoignition temperature</b>	Not available.
<b>Flammability</b>	Not available.	<b>Flammability or Explosive Limits:</b>	
		<b>Lower</b>	Not available.
		<b>Upper</b>	Not available.
<b>Solubility(ies)</b>	Practically insoluble.in water.		
<b>Other</b>	Chloroform: Freely soluble. Dehydrated alcohol: Freely soluble. Dioxane: Soluble. Ether: Slightly soluble. Chemical family Anabolic steroid. Molecular formula C19H28O2 Molecular weight 288.42		

**Section 10: Stability and Reactivity**

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical Stability</b>	Material is stable under normal conditions.
<b>Hazardous Polymerization</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to Avoid</b>	None under recommended storage and handling conditions ( see section 7).
<b>Incompatible Materials</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	Carbon monoxide. Carbon dioxide.

**Section 11: Toxicological Information**

RTECS XA3030000

**Acute Toxicity**

&gt; 300 mg/day &lt; 2000 mg/day Caused compound related transient clinical signs (apathy and atactic gait)

**Skin Corrosion/Irritation**

Dermal irritation was scored for erythema and edema. There was no difference between Testosterone gel and placebo gel in dermal irritation at 24, 48 or 72 hrs. Testosterone is non-irritating. Other similar compound ( Androstenedione), did not show a skin irritating or corrosive potential in rats when administered semi-occlusively to the back for 24 hours.

**Serious Eye Damage/Irritation**

Not classified.

**Respiratory or Skin Sensitization**

Not classified.

**Germ Cell Mutagenicity**

Not classified.

**Carcinogenicity**

Anabolic steroids may be carcinogenic. They can stimulate growth of sex-hormone dependent tissue, primarily the prostate gland in men. Precocious prostatic cancer has been described after long-term anabolic steroid abuse. Cases where hepatic cancers have been associated with anabolic steroid abuse have been reported. Testosterone is most probably associated with an increased risk for carcinogenicity through epigenetic mechanisms as genotoxicity data are overall negative.

**Reproductive Toxicity**

Suspected of damaging fertility or the unborn child. Androgen ingestion by pregnant mother can cause virilization of a female fetus. Testosterone is a potent androgenic hormone and its effects on developing fetuses are pronounced and thus, developing should not be exposed to Testosterone.

**Routes of Entry**

Ingestion.

**Symptoms Related to Exposure**

Anabolic steroids: Reproductive effects. Gastrointestinal disturbances. Weight gain. Swelling of feet and legs. Behavior, mood or mental changes. Liver toxicity. Water and sodium retention. Impaired glucose tolerance. Cancer.

**Potential Health Effects**

Not available.

**Target Organ(s)**

Not available.

**Section 12: Ecological Information****Ecotoxicity**

Ecology - general : No data available. Ecology - air : No data available. Ecology - water : No data available. Hazardous to the aquatic environment, short-term (acute): Additional aquatic toxicity data (Barbosa et al, 2008) indicate that the substance is not acutely toxic to aquatic invertebrates (Daphnia magna) to the limit of saturation. Chronic tests with Daphnia magna indicate toxicity at 0.31 mg/L (LOEL), however, this result does not meet the criteria for classification as chronic aquatic toxicant. Hazardous to the aquatic environment, long-term chronic: Not classified (No data available) Not rapidly degradable

**Persistence and Degradability**

Readily biodegradable.

**Bioaccumulative Potential**

log Kow 3.32

**Mobility in Soil**

Not available.

**Other Adverse Effects**

Available test data for Testosterone indicate that the substance is readily biodegradable. Tests with sewage sludge, from waste water treatment plants, indicate that Testosterone is rapidly degraded. Laboratory mineralization assays using <sup>14</sup>C labeled estrogens and testosterone were performed with biosolids from four municipal treatment plants and one industrial system. In these samples, 64.1% (±5.5) of the <sup>14</sup>C- Testosterone was mineralized to <sup>14</sup>CO<sub>2</sub> after 24 hrs. In waste water treatment plant # 3, mineralization of Testosterone was 68% percent <sup>14</sup>C- CO<sub>2</sub> after 24 hrs. Mineralization rates after 72 hrs were essentially the same. The test was run by methods similar to OECD test guidelines for ready biodegradability and therefore testosterone is classified as readily biodegradable. In a separate study, conducted to examine the persistence and fate of Testosterone in soils, incubation experiments were conducted under aerobic and anaerobic conditions using [ <sup>14</sup>C]-radiolabeled Testosterone. The results indicated that 63% of Testosterone could be mineralized to <sup>14</sup>CO<sub>2</sub> in native soils under aerobic conditions.

**Section 13: Disposal Considerations****Waste Disposal**

Regional waste regulation : Observe all federal, state, and local environmental regulations. Waste treatment methods : Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Product/ Packaging disposal recommendations : Contaminated packaging must be handled in the same way as the material: it must be managed by an authorized external company according to all federal, state and local regulations. Uncontaminated packaging be treated as household waste or recyclable material. Certificate of the final treatment must be submitted by the external company.

**Disposal of Container**

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**Other Considerations**

Not available.

**Section 14: Transport Information****DOT Classification**

UN Number: ADR UN 3077 IMDG UN 3077 IATA UN 3077 ADN UN 3077 RID UN 3077 UN Proper Shipping Name: ADR ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S IATA Environmentally hazardous substance, solid, n.o.s. ADN ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S RID ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S Transport Hazard Class: 9 Packing Group: III

**Section 15: Regulatory Information****Regulations**

15.1.1. EU-Regulations REACH Annex XVII (Restriction List) Not listed on REACH Annex XVII REACH Annex XIV (Authorisation List) Not listed on REACH Annex XIV (Authorisation List) REACH Candidate List (SVHC) Not listed on the REACH Candidate List PIC Regulation ( Prior Informed Consent) Not listed on the PIC list (Regulation EU 649/2012) POP Regulation ( Persistent Organic Pollutants) Not listed on the POP list (Regulation EU 2019/1021) Ozone Regulation ( 1005/ 2009) Not listed on the Ozone Depletion list (Regulation EU 1005/2009) Explosives Precursors Regulation ( 2019/1148) Contains no substance( s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors) Drug Precursors Regulation ( 273/2004) Contains no substance( s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

**Other**

Not available.

**Section 16: Other Information**

Acute Tox. 4 (Oral) Acute toxicity ( oral), Category 4 Aquatic Acute 1 Hazardous to the aquatic environment – Acute Hazard, Category 1 Carc. 2 Carcinogenicity, Category 2 H302 Harmful if swallowed. H351 Suspected of causing cancer. H361 Suspected of damaging fertility or the unborn child. H400 Very toxic to aquatic life. Repr. 2 Reproductive toxicity, Category 2