


# Safety Data Sheet



## 1. Identification

|  |  |
|--|--|
| <b>Product Identifier</b>                | Oxandrolone  |
| <b>Other means of identification</b>     |  |
| <b>Internal item number</b>              | 82393-0308   |
| <b>CAS number</b>                        | 53-39-4  |
| <b>Chemical name</b>                     | 2-Oxaandrostano-3-one, 17-hydroxy-17-methyl-, (5 $\alpha$ ,17 $\beta$ )- |
| <b>Relevant use and restrictions:</b>    | No further information available.  |
| <b>Application of substance:</b>         | Active pharmaceutical ingredient.  |
| <b>Manufacturer/Supplier information</b> |  |
| <b>Company name</b>                      | Pharma Source Direct   |
| <b>Address</b>                           | 8591 Prairie Trail Drive, Ste C-600<br>Englewood, CO 80112               |
| <b>Website</b>                           | www.pharmasd.com   |
| <b>Emergency phone number</b>            | Infotrac: 1-800-535-5053   |

## 2. Hazard(s) Identification

|                             |   |             |
|-----------------------------|---|-------------|
| <b>Physical hazards</b>     | Not classified  |             |
| <b>Health hazards</b>       | Carcinogenicity   | Category 1B |
|                             | Reproductive toxicity   | Category 1  |
| <b>OSHA defined hazards</b> | Not classified.   |             |
| <b>Label elements</b>       |  |             |

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|--|--|
| <b>Signal word</b>                             | Danger   |
| <b>Hazard statement</b>                        | May cause cancer. May damage fertility or the unborn child.  |
| <b>Precautionary statement</b>                 |  |
| <b>Prevention</b>                              | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. |
| <b>Response</b>                                | If exposed or concerned: Get medical advice/attention.   |
| <b>Storage</b>                                 | Store locked up.   |
| <b>Disposal</b>                                | Dispose of contents/container in accordance with local/regional/national/international regulations.  |
| <b>Hazards not otherwise classified (HNOC)</b> | Not classified.  |

## 3. Composition/Information on Ingredients

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## Substance

| Chemical name | Common name and synonyms | CAS number | %   |
|---------------|--------------------------|------------|-----|
| Oxandrolone   |                          | 53-39-4    | 100 |

## 4. First-aid Measures

|   |  |
|---|--|
| <b>Inhalation</b>   | If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.  |
| <b>Skin contact</b>   | Rinse skin with water/shower. Get medical attention if irritation develops and persists.   |
| <b>Eye contact</b>  | Rinse with water. Get medical attention if irritation develops and persists.   |
| <b>Ingestion</b>  | Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.  |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Gastrointestinal disturbances.   |
| <b>Indication of immediate medical attention and special treatment needed</b> | Provide general supportive measures and treat symptomatically. Perform gastric lavage. Monitor liver function.   |
| <b>General Information</b>  | Remove from exposure. Remove contaminated clothing. For treatment advice, seek guidance from an occupational health physician or other licensed health-care provider familiar with workplace chemical exposures. In the United States, the national poison control center phone number is 1-800-222-1222. If person is not breathing, give artificial respiration. If breathing is difficult, give oxygen if available. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. |

## 5. Fire-fighting Measures

|  |  |
|--|--|
| <b>Suitable extinguishing media</b>                                  | Use fire-extinguishing media appropriate for surrounding materials. Water. Foam. Dry chemical or CO <sub>2</sub> .   |
| <b>Unsuitable extinguishing media</b>                                | None known.  |
| <b>Specific hazards arising from the chemical</b>                    | No unusual fire or explosion hazards noted.  |
| <b>Special protective equipment and precautions for firefighters</b> | Wear suitable protective equipment.  |
| <b>Fire-fighting equipment/instructions</b>                          | Use water spray to cool unopened containers. As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing. |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials.   |

## 6. Accidental Release Measures

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**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Avoid inhalation of dust from the spilled material. Wear appropriate personal protective equipment.

**Methods and materials for containment and cleaning up**

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid the generation of dusts during clean-up. For waste disposal, see section 13 of the SDS. Clean surface thoroughly to remove residual contamination.

## 7. Handling and Storage

**Precautions for safe handling**

As a general rule, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Clean equipment and work surfaces with suitable detergent or solvent after use. After removing gloves, wash hands and other exposed skin thoroughly. Use of a designated area is recommended for handling of potent materials.

**Conditions for safe storage, including any incompatibilities**

Store in tight container. This material should be handled and stored per label instructions to ensure product integrity.

## 8. Exposure Controls & Personal Protection

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

No exposure standards allocated.

**Appropriate engineering controls**

Airborne exposure should be controlled primarily by engineering controls such as general dilution ventilation, local exhaust ventilation, or process enclosure. Local exhaust ventilation is generally preferred to general exhaust because it can control the contaminant at its source, preventing dispersion into the work area. An industrial hygiene survey involving air monitoring may be used to determine the effectiveness of engineering controls. Effectiveness of engineering controls intended for use with highly potent materials should be assessed by use of nontoxic surrogate materials. Avoid any open handling of this material, particularly for grinding, crushing, weighing, or other dust-generating or aerosol-generating procedures. Use a laboratory fume hood, vented enclosure, glovebox, or other effective containment.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Safety glasses with sideshields are recommended. Face shields or goggles may be required if splash potential exists or if corrosive materials are present. Approved eye protection (e.g., bearing the ANSI Z87 or CSA stamp) is preferred. Maintain eyewash facilities in the work area.

**Skin protection**

**Hand protection**

Chemically compatible gloves. For handling solutions, ensure that the glove material is protective against the solvent being used. Use handling practices that minimize direct hand contact. Employees who are sensitive to natural rubber (latex) should use nitrile or other synthetic nonlatex gloves. Use of powdered latex gloves should be avoided due to the risk of latex allergy. To reduce the risk of contamination of skin and surfaces, wear two pairs of gloves. Remove the outer gloves after handling and cleanup of the material, and

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|---------------------------------------|---|
| <b>Other</b>                          | remove the inner gloves only after removing other person protective equipment.<br>For handling of laboratory scale quantities, a disposable lab coat or isolation gown over street clothes is recommended. Where significant quantities are handled, work clothing and booties may be necessary to prevent take-home contamination. |
| <b>Respiratory protection</b>         | Where respirators are deemed necessary to reduce or control occupational exposures, use NIOSH-approved respiratory protection and have an effective respirator program in place (applicable U.S. regulation OSHA 29 CFR 1910.134).  |
| <b>Thermal hazards</b>                | Not available.  |
| <b>General hygiene considerations</b> | Handle in accordance with good industrial hygiene and safety practice.  |

## 9. Physical and Chemical Properties

|   |                               |
|---|-------------------------------|
| <b>Appearance</b>                                   | White, crystalline powder.    |
| <b>Physical state</b>                               | Solid.                        |
| <b>Form</b>   | Powder.                       |
| <b>Odor</b>   | Odorless.                     |
| <b>Odor threshold</b>                               | Not available.                |
| <b>pH</b>   | Not available.                |
| <b>Melting point/freezing point</b>                 | 455 – 460.4 °F (235 - 238 °C) |
| <b>Initial boiling point and boiling range</b>      | Not available.                |
| <b>Flash point</b>                                  | Not available.                |
| <b>Evaporation rate</b>                             | Not available.                |
| <b>Flammability (solid, gas)</b>                    | Not applicable.               |
| <b>Upper/lower flammability or explosive limits</b> |                               |
| <b>Flammability limit - lower (%)</b>               | Not available.                |
| <b>Flammability limit - upper (%)</b>               | Not available.                |
| <b>Explosive limit - lower (%)</b>                  | Not available.                |
| <b>Explosive limit - upper (%)</b>                  | Not available.                |
| <b>Vapor pressure</b>                               | <0.0000001 kPa at 25°C        |
| <b>Vapor density</b>                                | Not available.                |
| <b>Relative density</b>                             | Not available.                |
| <b>Solubility in water</b>                          | Practically insoluble.        |
| <b>Partition coefficient (n-octanol/water)</b>      | Not available.                |
| <b>Auto-ignition temperature</b>                    | Not available.                |
| <b>Decomposition temperature</b>                    | Not available.                |
| <b>Viscosity</b>                                    | Not available.                |
| <b>Other information</b>                            |                               |
| <b>Chemical family</b>                              | Anabolic steroid.             |
| <b>Molecular formula</b>                            | C19-H30-O3                    |

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|                           |  |
|---------------------------|--|
| <b>Molecular weight</b>   | 306.44 g/mol   |
| <b>Solubility (other)</b> | Freely soluble in chloroform; sparingly soluble in alcohol and in acetone. |

## 10. Stability and Reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | No reactivity hazards known.   |
| <b>Chemical stability</b>                 | Material is stable under normal conditions.                                      |
| <b>Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use.                      |
| <b>Conditions to avoid</b>                | None known.  |
| <b>Incompatible materials</b>             | Strong oxidizing agents. Acids. Bases.   |
| <b>Hazardous decomposition products</b>   | Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions. |

## 11. Toxicological Information

### Information on likely routes of exposure

|                     |   |
|---------------------|---|
| <b>Ingestion</b>    | Based on available data, the classification criteria are not met. |
| <b>Inhalation</b>   | Due to the lack of data the classification is not possible.       |
| <b>Skin contact</b> | Due to the lack of data the classification is not possible.       |
| <b>Eye contact</b>  | Due to the lack of data the classification is not possible.       |

### Symptoms related to the physical, chemical, and toxicological characteristics

Anabolic steroids: Men and women: Swelling of feet and legs. Weight gain. Nausea. Vomiting. Diarrhea. Acne. Sleep disturbances. Bone or joint pain. Hair loss. Aggressive behavior. Mood swings. Headache. Men: Shrinking of testicles. Urinary difficulties. Breast enlargement or tenderness. Decreased sexual ability. Women: Growth of facial and body hair. Loss of breasts. Swelling of clitoris. Deep voice. Menstrual irregularities.

### Delayed and immediate effects of exposure

Anabolic steroids: Liver toxicity. Water and sodium retention. Impaired glucose tolerance. Masculinization of females.

### Cross sensitivity

Persons sensitive to other steroids may be sensitive to this material also.

### Medical conditions aggravated by exposure

Anabolic steroids: Cardiovascular disorders. Kidney or liver impairment. Epilepsy. Migraine. Diabetes mellitus. Hypercalcemia. Sleep disorders. High cholesterol. Breast or prostate cancer (men).

### Acute toxicity

Harmful if swallowed.

### Product

### Species

### Test Results

Oxandrolone (CAS 53-39-4)

*Oral*

LD50

Mouse

1832 mg/kg

Rat

> 10g/kg

### Skin corrosion/irritation

Due to lack of data the classification is not possible.

### Serious eye damage/eye irritation

Due to lack of data the classification is not possible.

### Respiratory sensitization

Due to lack of data the classification is not possible.

### Skin sensitization

Due to lack of data the classification is not possible.

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|---|--|
| <b>Germ cell mutagenicity</b>                             | Due to lack of data the classification is not possible. Data from germ cell mutagenicity tests were not found.   |
| <b>Carcinogenicity</b>                                    | May cause cancer. IARC: Group 1; Carcinogenic to humans. Long-term exposures to certain steroids may be associated with certain forms of cancer, including cancer of the female reproductive tract and possibly breast cancer in humans. Steroids may act as tumor promoters in the process of carcinogenesis, based on animal studies. In humans, fatal and benign hepatomas, adenocarcinoma of the sigmoid colon, Wilms tumor, hepatic angiosarcoma, acute myeloid leukemia, and precocious prostatic cancer have been reported in patients and athletes taking anabolic steroids. |
| <b>Reproductive toxicity</b>                              | May damage fertility or the unborn child. Studies in animals have shown that anabolic steroids cause masculinization of the fetus. Animal studies have also shown oxandrolone to cause embryo death, fetal death, and infertility in offspring of animals receiving 9 times the human dose. Animal studies have also shown oxandrolone to suppress male fertility and cause shrinkage of male and female reproductive organs. Anabolic steroid use during pregnancy may result in premature bone maturation and decreased birthweight.   |
| <b>Specific target organ toxicity - single exposure</b>   | Due to the lack of data the classification is not possible.  |
| <b>Specific target organ toxicity - repeated exposure</b> | Due to the lack of data the classification is not possible.  |
| <b>Aspiration hazard</b>                                  | Based on available data, the classification criteria are not met.  |

## 12. Ecological Information

|                                      |  |
|--------------------------------------|--|
| <b>Ecotoxicity</b>                   | No ecotoxicity data noted for the ingredient(s).           |
| <b>Persistence and degradability</b> | No data is available on the degradability of this product. |
| <b>Bioaccumulative potential</b>     | Not available.   |
| <b>Mobility in soil</b>              | Not available.   |
| <b>Other adverse effects</b>         | Not available.   |

## 13. Disposal Considerations

|  |  |
|--|--|
| <b>Disposal instructions</b>                 | Dispose in accordance with all applicable regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. |
| <b>Local disposal regulations</b>            | Not available.   |
| <b>Hazardous waste code</b>                  | Not available.   |
| <b>Waste from residues / unused products</b> | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).           |
| <b>Contaminated packaging</b>                | 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.                 |

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## 14. Transport Information

### DOT

Not regulated as hazardous material by DOT.

### IATA

Not regulated as a dangerous good.

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

## 15. Regulatory Information

### US federal regulations

CERCLA/SARA Hazardous Substances – Not applicable.

One or more components are not listed on TSCA.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard – Yes  
Delayed Hazard – Yes  
Fire Hazard – No  
Pressure Hazard – No  
Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

No

#### SARA 311/312 Hazardous Chemical

No

### Other federal regulations

#### Safe Drinking Water Act (SDWA)

Not regulated.

#### Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)

Schedule III – 4000

#### Food and Drug Administration (FDA)

Not regulated.

### US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

### International Inventories

| Country(s) or region | Inventory name   | On inventory (yes/no)* |
|----------------------|--|------------------------|
| Australia            | Australian Inventory of Chemical Substances (AICS)                     | No                     |
| Canada               | Domestic Substances List (DSL)   | No                     |
| Canada               | Non-Domestic Substances List (NDSL)                                    | No                     |
| China                | Inventory of Existing Chemical Substances in China (IECSC)             | No                     |
| Europe               | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes                    |



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|                             |   |     |
|-----------------------------|---|-----|
| Europe                      | European List of Notified Chemical Substances (ELINCS)            | No  |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)          | Yes |
| Korea                       | Existing Chemicals List (ECL)                                     | No  |
| New Zealand                 | New Zealand Inventory   | No  |
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No  |
| Unites States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                     | No  |

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## 16. Other Information

### Disclaimer

The information in this SDS has been compiled from sources considered dependable but has not been independently verified. The company cannot guarantee the accuracy of information herein, and the statements contained should not be considered an official expression. The company will not assume liability for any loss, damage, and/or expense resulting from the use and/or misuse of this product regarding handling, storage, and/or disposal.

|                   |  |
|-------------------|--|
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| <b>Version</b>    | 1.0                                      |
| <b>Issued by</b>  | Pharma Source Direct – Quality Assurance |