

Safety Data Sheet

Paclitaxel, from *Taxus yunnanensis*

Cat#: orb321957

Revision Date: 6/11/2020

Section 1. Product and Company Identification

| | |
|--------------------------|---|
| Product Name | Paclitaxel, from <i>Taxus yunnanensis</i> |
| Catalog No. | orb321957 |
| Chemical Name (Synonyms) | Taxol; Taxol A; Paxene |

Section 2. Hazards Identification

GHS Classification

Skin irritation (Category 2), H315

Skin sensitization (Category 1), H317

Serious eye damage (Category 1), H318

Respiratory sensitization (Category 1), H334

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Germ cell mutagenicity (Category 2), H341

Reproductive toxicity (Category 2), H361

Chronic aquatic toxicity (Category 4), H413

GHS Label elements including precautionary statements



Pictogram:

Signal word: **Danger**

Hazard and precautionary statements

Hazard statement

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 - May cause respiratory irritation.

H341 - Suspected of causing genetic defects.

H361 - Suspected of damaging fertility or the unborn child.

H413 - May cause long lasting harmful effects to aquatic life.

Precautionary statements

P201 - Obtain special instructions before use. /P202 - Do not handle until all safety precautions have been read and understood.

P261 - Avoid breathing dust, fumes, gas, mist, vapors, and spray. / P264 - Wash skin thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P272 - Contaminated work clothing should not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, eye protection, and face protection.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor/physician.

P321 - Specific treatment (see supplemental first aid instructions on this label).

P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention.

P362 - Take off contaminated clothing and was before reuse.

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up. / P501 - Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard: 2

Chronic health hazard: *

Flammability: 0

Physical hazard: 0

NFPA Rating

Health hazard: 2

Fire hazard: 0

Reactivity hazard: 0

Potential Health Effects

Inhalation - May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Respiratory sensitization.

Skin - Causes skin irritation. May cause an allergic skin reaction .

Eyes - Causes serious eye damage.

Ingestion - May be harmful if swallowed.

Reproductive toxicity: Suspected of causing genetic defects. Suspected of damaging fertility or the unborn child. Germ cell mutagenicity: Suspected of causing genetic defects.

Section 3. Composition/Information on Ingredients

Substances

Formula C₄₇H₅₁NO₁₄

Formula Wt. 853.91

CAS No. 33069-62-4

EC No.

Section 4. First Aid Measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Eye Contact Flush eyes with water as a precaution.

Skin Contact Wash off with soap and plenty of water. Consult a physician.

Inhalation If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5. Firefighting Measures

Flash Point

Not available.

Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Firefighting Procedures

Wear self-contained breathing apparatus for firefighting if necessary.

Unusual Fire Hazards

Carbon oxides, nitrogen oxides (NO_x)

Section 6. Accidental Release Measures

Personal Precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Ensure adequate ventilation.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleanup

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7. Handling and Storage

Handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at

places where dust is formed.

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: -20°C.

Hazardous Decomposition Products

Not available.

Section 8. Exposure Controls/Personal Protection

Personal protective equipment

EXPOSURE CONTROLS

Contains no substances with occupational exposure limit values.

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

PERSONAL PROTECTION

Eye/Face protection: Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full and Splash contact - Material: Nitrile rubber, Minimum layer thickness: 0.11 mm, Break through time: 480 min.

Body protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9. Physical and Chemical Properties

Physical State Solid.

Boiling Point Not available.

Melting Point 213°C (415°F) - dec.

Solubility Insoluble in water. Soluble in ethanol (18mg/ml) or DMSO (50mg/ml).

Flash Point Not available.

Lower explosion limit Not available.

Upper explosion limit Not available.

Water solubility Insoluble in water.

Color White to off-white powder.

Volatility Not available.

Density Not available.

pH 3.0 - 8.0

Ignition temperature Not available.

Autoignition temperature Not available.

Vapor pressure Not available.

Odor Not available.

Partition coefficient: n-octanol/water log

Pow: > 99

Relative vapor density 0.2 g/cm³

Odor Threshold Not available.

Evaporation rate Not available.

Section 10. Stability and Reactivity

Stability

Stable under recommended storage conditions.

Materials To Avoid

Oxidizing agents.

Hazardous Decomposition Products

Not available.

Possibility of hazardous reactions

Not available.

Conditions to avoid

Not available.

Section 11. Toxicological Information

Oral LD50

Not available.

Inhalation LC50

Irritating to respiratory system.

Dermal LD50

Not available.

Other information on acute toxicity

Not available.

Reproductive Toxicity

Rat-intravenous: Maternal effects: Other. Effects on Fertility: pre-implantation mortality. Effects on embryo or fetus: Extra embryonic structures. Effects on newborn: growth statistics, behavioral, and physical. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Specific organ toxicity single exposure (GHS)

Inhalation - May cause respiratory irritation.

Specific organ toxicity repeated exposure (GHS)

Not available.

Teratogenicity

Not available.

Skin corrosion/irritation

Not available.

Serious eye damage/irritation

Not available.

Respiratory or skin sensitization

Irritation to respiratory system. Skin sensitization.

Germ cell mutagenicity

Laboratory experiments have shown mutagenic effects. Hamster, lungs and cytogenetic analysis. Mouse - micronucleus test.

Aspiration Hazard

Not available.

Synergistic effects

Not available.

Additional Information

RTECS: DA8340700

Signs and symptoms of exposure

Alopecia - Liver and kidney injury may occur, nausea, headache, vomiting, bone marrow depression. Stomach, irregularities - based on human evidence.

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: Acute toxicity. Harmful if swallowed.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Section 12. Ecological Information

Toxicity Not available.

Mobility in soil Not available.

PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/ not conducted.

Persistence and degradability Not available.

Other adverse effects Chronic aquatic toxicity (Category 4), H413

Bioaccumulative potential Not available.

Section 13. Disposal Considerations

Waste Disposal

Dispose of material according to all federal, state, and local regulations.

Offer material to a licensed, professional waste disposal company to dispose of as unused product.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Section 14. Transport Information

DOT (US) Not dangerous goods.

IATA Not dangerous goods.

IMDG Not dangerous goods.

Section 15. Regulatory Information

Reach No.

SARA 302 Components No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Components Acute health hazard and chronic health hazard.

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right

To Know Components Paclitaxel CAS #: 33069-62-4

New Jersey Right to Know Components Paclitaxel CAS #: 33069-62-4

California Prop 65 Components

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Paclitaxel CAS #: 33069-62-4

Section 16. Other Information

Other information

The information in this document is believed to be correct but is not necessarily complete. Biorbyt does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.