

Material Safety Data Sheet

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Version 1.2

According to 91/155/EEC

Classified as Hazardous according to the criteria of EU Annex 1 and NOHSC.

1 - Product and Company Information

Product Name	PACLITAXEL, 95%
Product Number	417017
Company	Sigma-Aldrich Pty, Ltd Unit 2, 14 Anella Avenue Castle Hill NSW 1765 Australia
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2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
PACLITAXEL FROM TAXUS BREVIFOLIA	33069-62-4	None	None

Ingredient Name	Percent	CAS #	EC no	Annex I Index Number
The hazards identified with this product are those associated with the residual solvents that are used in the manufacturing process.		None	None	None

METHANOL	<= 4	67-56-1	200-659-6	603-001-00-X
Symbols: F T				
R-Phrases: 11 23/24/25 39/23/24/25				
Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.				

2-PROPANOL	<= 4	67-63-0	200-661-7	603-117-00-0
Symbols: F Xi				
R-Phrases: 11 36 67				
Highly flammable. Irritating to eyes. Vapors may cause drowsiness and dizziness.				

ETHYL ALCOHOL, NON-DENATURED, 200 PROOF	<= 1	64-17-5	200-578-6	603-002-00-5
Symbols: F				
R-Phrases: 11				
Highly flammable.				

Formula	C47H51NO14
Molecular Weight	853.93 AMU
Synonyms	BMS 181339-01 * NSC-125973 * Paclitaxel * Taxol

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Harmful by inhalation, in contact with skin and if swallowed.

Harmful: danger of serious damage to health by prolonged exposure through inhalation in contact with skin, and if swallowed.

Irritating to respiratory system and skin. Risk of serious damage to eyes. May cause sensitization by inhalation and skin contact.

Possible risk of impaired fertility. Possible risk of irreversible effects.

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

Call a physician.

AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Wear disposable coveralls and discard them after use.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure. Do not use if skin is cut or scratched. Wash thoroughly after handling.

STORAGE

Conditions of Storage: Keep tightly closed.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath. Mechanical exhaust required.

GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.
Hand Protection: Compatible chemical-resistant gloves.
Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
pH	3 - 8	
BP/BP Range	N/A	
MP/MP Range	213 °C	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	0.2 g/cm ³	
Partition Coefficient	Log Kow: > 99	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	> 100 °C	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	Solubility in Water: Insoluble.	

10 - Stability and Reactivity

STABILITY

Stable: Stable.
Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: DA8340700

ACUTE TOXICITY

LDLO

Intravenous

Woman

4,995 mg/kg

LD50

Intraperitoneal

Rat

32,530 mg/kg

LD50

Intraperitoneal

Mouse

128 mg/kg

LD50

Intravenous

Mouse

12 mg/kg

LDLO

Intravenous

Woman

4995 MG/KG

3H-C

Remarks: Cardiac:Cardiomyopathy including infarction.

Blood:Leukopenia. Blood:Thrombocytopenia.

LD50

Intraperitoneal

Rat

32530 UG/KG

Remarks: Behavioral:Somnolence (general depressed activity).

Lungs, Thorax, or Respiration:Dyspnea. Nutritional and Gross

Metabolic:Weight loss or decreased weight gain.

LD50

Intraperitoneal

Mouse

128 MG/KG

Remarks: Skin and Appendages: Other: Hair. Nutritional and Gross

Metabolic:Weight loss or decreased weight gain.

LD50

Intravenous

Mouse

12 MG/KG

Remarks: Behavioral:Somnolence (general depressed activity).

Behavioral:Ataxia. Lungs, Thorax, or Respiration:Respiratory

depression.

SENSITIZATION

Respiratory: May cause allergic respiratory reaction.
Skin: May cause allergic skin reaction.

SIGNS AND SYMPTOMS OF EXPOSURE

Exposure can cause: Damage to the liver. Alopecia. Nausea, headache, and vomiting. Damage to the kidneys. Can cause severe cardiotoxicity and bone marrow suppression.

ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.
Skin Absorption: Harmful if absorbed through skin.
Eye Contact: Causes severe eye irritation.
Inhalation: Material is irritating to mucous membranes and upper respiratory tract. Harmful if inhaled.
Ingestion: Harmful if swallowed.

TARGET ORGAN INFORMATION

Cardiovascular system. Heart. Nerves. Eyes. Kidneys. Liver. Bone marrow. Lungs. Blood. Skin. G.I. System.

CHRONIC EXPOSURE - MUTAGEN

Result: Laboratory experiments have shown mutagenic effects.

Mouse
20 MG/KG
Subcutaneous
Micronucleus test

Hamster
80 UG/L
Cell Type: lung
Cytogenetic analysis

CHRONIC EXPOSURE - TERATOGEN

Species: Rat
Dose: 6600 UG/KG
Route of Application: Intravenous
Exposure Time: (7-17D PREG)
Result: Specific Developmental Abnormalities: Musculoskeletal system. Effects on Newborn: Delayed effects.

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Result: Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Species: Rat
Dose: 84 MG/KG
Route of Application: Intravenous
Exposure Time: (9W MALE/2W PRE/1-7D PREG)
Result: Maternal Effects: Other effects. Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Embryo or Fetus: Extra embryonic structures (e.g., placenta, umbilical cord).

Species: Rat
Dose: 26 MG/KG
Route of Application: Intravenous
Exposure Time: (17-21D PREG/21D POST)
Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Behavioral. Effects on

Newborn: Physical.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

Non-hazardous for road transport.

IMDG

Non-hazardous for sea transport.

IATA

Non-hazardous for air transport.

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: Xn

Harmful.

R-PHRASES: 20/21/22 48/20/21/22 37/38 41 42/43 62 68

Harmful by inhalation, in contact with skin and if swallowed.

Harmful: danger of serious damage to health by prolonged exposure through inhalation in contact with skin, and if swallowed. Irritating to respiratory system and skin. Risk of serious damage to eyes. May cause sensitization by inhalation and skin contact. Possible risk of impaired fertility. Possible risk of irreversible effects.

S-PHRASES: 22 26 36/37/39 45

Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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