



# HETERO LABS LIMITED

"Hetero Corporate", 7-2-A2, Industrial Estates, Sanath Nagar, Hyderabad - 500 018. A.P., INDIA.  
Tel : 91-40-23704923/24/25, Fax : 91-40-23704926, 23714250  
e-mail : contact@heterodrugs.com URL : http://www.heterodrugs.com

## SAFETY DATA SHEET

Section 1: Identification	
<b>Product information</b>	
<b>Product Name</b>	Zidovudine Tablets USP, 300 mg
<b>Active substance</b>	Zidovudine
<b>Intended Uses</b>	Zidovudine Tablets indicated for the treatment of HIV-I infection
<b>Company Details</b>	
<b>Manufacturer</b>	Hetero labs limited, Unit III, 22 - 110, industrial development Area, Jeedimetla, Hyderabad -500 055.
<b>Distributor</b>	Camber Pharmaceuticals, Inc, Piscatway, NJ 08854
Section 2: Hazard(s) Identification	
<b>Statement of Hazard:</b>	May damage the unborn child. Suspected of causing cancer. Suspected of causing genetic defects Obtain special instructions before use.
<b>Known Clinical Effects:</b>	Adverse effects associated with therapeutic use include blood system changes, liver effects, heart muscle damage (cardiomyopathy).
Section 3: Composition/Information on Ingredients	
Components	CAS No.
Zidovudine	30516-87-1
Microcrystalline Cellulose	9004-34-6
Sodium starch Glycolate	9063-38-1
Magnesium Stearate	557-04-0
Opadry white	Not Assigned
Section 4: First-Aid Measures	
<b>General</b>	Check the vital functions-Unconscious: maintain adequate airway and respiration. Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately. Allow the victim to rest in a well ventilated area. Seek immediate Medical attention.
<b>Inhalation</b>	Should not pose a hazard in the final form. If breathing is difficult, move to fresh air. Get medical attention immediately.
<b>Eye contact</b>	Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. If exposed or concerned: Get medical attention/advice.
<b>Skin contact</b>	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Discard contaminated clothing or wash before re-use. If exposed or concerned: Get medical attention/advice.



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<b>Ingestion</b>	If swallowed, wash out mouth with water, provided Person is conscious. Seek medical advice. Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately. Rinse mouth with water-Immediately after ingestion: give lots of water to drink
<b>Section 5: Fire-Fighting Measures</b>	
<b>Extinguishing Media</b>	Use water spray, dry chemical, carbon dioxide or material appropriate for fire in surrounding area
<b>Protection of Firefighters</b>	Wear full protective clothing and self-contained breathing apparatus.
<b>Hazardous Combustion Products</b>	Carbon dioxide, carbon monoxide, oxides of nitrogen
<b>Other information</b>	Decontaminate protective clothing and equipment before reuse.
<b>Section 6: Accidental Release Measures</b>	
<b>Personal Precautions</b>	Wear protective clothing and equipment consistent with the degree of hazard.
<b>Environmental Precautions</b>	For large spills, take precautions to prevent entry into waterways sewers, or surface drainage systems.
<b>Clean-up Methods</b>	Collect and place it in a suitable, properly labeled container for recovery or disposal.
<b>Section 7: Handling and Storage</b>	
<b>Handling Precautions</b>	Avoid exposure and formation of dust and aerosols. When handling broken or crushed tablets or capsules, ensure worker exposure is below the recommended exposure limit. Keep away from heat and sources of ignition. Prevent release to drains and waterways.
<b>Container Requirements</b>	Store in the original primary packaging as provided.
<b>Storage Conditions</b>	Store at 20° to 25° C (68° to 77°F) [see USP Controlled Room Temperature].
<b>Section 8: Exposure Controls/Personal Protection</b>	
<b>Engineering Controls</b>	Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne contamination levels below the exposure limits listed above in this section.
<b>Respiratory Protection</b>	If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL.



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<b>Personal Protection</b>	If containers are compromised or exposure is likely wear: Goggles, Lab Coat, Gloves
<b>Recommended Facilities</b>	Eye wash, washing facilities

## Section 9: Physical and Chemical Properties

### General Information

<b>Appearance</b>	
<b>Physical State</b>	Solid
<b>Form</b>	Tablets
<b>Odour</b>	Not available
<b>pH</b>	Not available
<b>Description &amp; Availability</b>	<ul style="list-style-type: none"><li>300 mg white to off white colored, biconvex, round film coated tablets debossed with 'T' on one side and '2' on other side.</li></ul> Bottles of 60 Tablets NDC 31722-509-60

## Section 10: Stability and Reactivity

Stable under recommended storage conditions

## Section 11: Toxicological Information

### Carcinogenesis, Mutagenesis, Impairment of Fertility

Zidovudine was administered orally at 3 dosage levels to separate groups of mice and rats (60 females and 60 males in each group). Initial single daily doses were 30 mg, 60 mg, or 120 mg/kg/day in mice and 80 mg, 220 mg, or 600 mg/kg/day in rats. The doses in mice were reduced to 20 mg, 30 mg, or 40 mg/kg/day after day 90 because of treatment-related anemia, whereas in rats only the high dose was reduced to 450 mg/kg/day on day 91 and then to 300 mg/kg/day on day 279.

In mice, 7 late-appearing (after 19 months) vaginal neoplasms (5 non metastasizing squamous cell carcinomas, 1 squamous cell papilloma, and 1 squamous polyp) occurred in animals given the highest dose. One late-appearing squamous cell papilloma occurred in the vagina of a middle-dose animal. No vaginal tumors were found at the lowest dose.

In rats, 2 late-appearing (after 20 months), non-metastasizing vaginal squamous cell carcinomas occurred in animals given the highest dose. No vaginal tumors occurred at the low or middle dose in rats. No other drug-related tumors were observed in either sex of either species.

At doses that produced tumors in mice and rats, the estimated drug exposure (as measured by AUC) was approximately 3 times (mouse) and 24 times (rat) the estimated human exposure at the recommended therapeutic dose of 100 mg every 4 hours.

It is not known how predictive the results of rodent carcinogenicity studies may be for humans.

Zidovudine was mutagenic in a 5178Y/TK+/- mouse lymphoma assay, positive in an in vitro cell



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transformation assay, clastogenic in a cytogenetic assay using cultured human lymphocytes, and positive in mouse and rat micronucleus tests after repeated doses. It was negative in a cytogenetic study in rats given a single dose.

Zidovudine, administered to male and female rats at doses up to 7 times the usual adult dose based on body surface area, had no effect on fertility judged by conception rates.

Two trans placental carcinogenicity studies were conducted in mice. One study administered zidovudine at doses of 20 mg/kg/day or 40 mg/kg/day from gestation day 10 through parturition and lactation with dosing continuing in offspring for 24 months postnatally. The doses of zidovudine administered in this study produced zidovudine exposures approximately 3 times the estimated human exposure at recommended doses. After 24 months, an increase in incidence of vaginal tumors was noted with no increase in tumors in the liver or lung or any other organ in either gender. These findings are consistent with results of the standard oral carcinogenicity study in mice, as described earlier. A second study administered zidovudine at maximum tolerated doses of 12.5 mg/day or 25 mg/day (~1,000 mg/kg nonpregnant body weight or ~450 mg/kg of term body weight) to pregnant mice from days 12 through 18 of gestation. There was an increase in the number of tumors in the lung, liver, and female reproductive tracts in the offspring of mice receiving the higher dose level of zidovudine.

## Reproductive and Developmental Toxicology Studies

Oral teratology studies in the rat and in the rabbit at doses up to 500 mg/kg/day revealed no evidence of teratogenicity with zidovudine. Zidovudine treatment resulted in embryo/fetal toxicity as evidenced by an increase in the incidence of fetal resorptions in rats given 150 or 450 mg/kg/day and rabbits given 500 mg/kg/day. The doses used in the teratology studies resulted in peak zidovudine plasma concentrations (after one half of the daily dose) in rats 66 to 226 times, and in rabbits 12 to 87 times, mean steady-state peak human plasma concentrations (after one sixth of the daily dose) achieved with the recommended daily dose (100 mg every 4 hours). In an in vitro experiment with fertilized mouse oocytes, zidovudine exposure resulted in a dose-dependent reduction in blastocyst formation. In an additional teratology study in rats, a dose of 3,000 mg/kg/day (very near the oral median lethal dose in rats of 3,683 mg/kg) caused marked maternal toxicity and an increase in the incidence of fetal malformations. This dose resulted in peak zidovudine plasma concentrations 350 times peak human plasma concentrations. (Estimated area under the curve [AUC] in rats at this dose level was 300 times the daily AUC in humans given 600 mg/day.) No evidence of teratogenicity was seen in this experiment at doses of 600 mg/kg/day or less.

## Section 12: Ecological Information

No relevant studies identified.

## Section 13: Disposal Considerations

### Waste treatment methods

<b>Additional information</b>	Wash clothing and equipment after handling
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<b>Ecology - waste materials</b>	Take up liquid spill into absorbent material-Scoop absorbed substance into closing containers.
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## Section 14: Transport Information

### IATA/ICAO - Not Regulated

IATA Proper shipping Name	:	N/A
IATA UN/ID No	:	N/A
IATA Hazard Class	:	N/A
IATA Packaging Group	:	N/A
IATA Label	:	N/A

### IMDG - Not Regulated

IMDG Proper shipping Name	:	N/A
IMDG UN/ID No	:	N/A
IMDG Hazard Class	:	N/A
IMDG Flash Point	:	N/A
IMDG Label	:	N/A

### DOT - Not Regulated

DOT Proper shipping Name	:	N/A
DOT UN/ID No	:	N/A
DOT Hazard Class	:	N/A
DOT Flash Point	:	N/A
DOT Packing Group	:	N/A
DOT Label	:	N/A

## Section 15: Regulatory Information

This Section Contains Information relevant to compliance with other Federal and/or state laws.

## Section 16: Other Information

### **Section 16, Other information**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Nothing herein shall be deemed to create any warranty, express or implied. It is the responsibility of the user to determine the applicability of this information and the suitability of the material or product for any particular purpose.

Hetero labs limited shall not be held liable for any damage resulting from handling or from contact with the above product. Hetero labs limited reserves the right to revise this MSDS.