MATERIAL SAFETY DATA SHEET

Version No: MSDS/BICA/DP-001 Effective Date: January 25, 2013

Bicalutamide Tablets USP 50 mg

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Name: Bicalutamide Tablets USP 50 mg

Marketing Authorisation Holder

Accord Healthcare, Inc.,
1009 Slater Road,
Suite 210-B,
Durham, NC 27703, USA.
Telephone: 1-919-941-7878
Fax- 1-919-941-7881

Manufacturer

Intas Pharmaceuticals Ltd.
Plot No. 457, 458
Village-Matoda,
Bavla Road, Ta. Sanand,
Dist. Ahmedabad-382 210,
Gujarat, India

US Emergency Phone: Call CHEMTREC Day or Night: 1-800-424-9300

SECTION 2 – COMPOSITION, INFORMATION ON INGREDIENTS

Active: Bicalutamide USP

Inactive: Lactose monohydrate, Magnesium Stearate, Hypromellose E5, Polyethylene glycol 400, Povidone K 30, Sodium starch glycolate, and Titanium dioxide

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview: Reproductive Hazard

Adverse Effects: Adverse effects may include nausea; constipation; diarrhea; vomiting; generalized lumbar or pelvic pain and infection; blurred vision; unusual tiredness or weakness; shortness of breath, difficulty breathing, chest pain, or cough; swelling of face, arms, hands, feet, or lower legs; fever; bloody or black, tarry stools; blood in urine; upper respiratory infection or flu-like symptoms; rash or itching; depression; numbness, tingling, or pain in extremities; gas or indigestion; chills; confusion; loss of appetite; dizziness; dry mouth; pain, tenderness, or swelling of breasts; headache; impotence; nervousness; insomnia; and hot flashes. Possible allergic reaction to material if inhaled, ingested, or in contact with skin.

Acute: Possible eye, skin, gastrointestinal, and/or respiratory tract irritation.
Chronic: Possible hypersensitization and liver failure.

Medical Conditions Aggravated by Exposure: Hypersensitivity to material and impaired liver function.
Target Organs: Liver

SECTION 4 - EMERGENCY & FIRST AID MEASURES

General First Aid Procedures: Remove from exposure. Remove contaminated clothing. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. If person is not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms occur.

Skin contact: Rinse immediately with plenty of water. Get medical attention if symptoms occur.

Inhalation: Move to fresh air. Get medical attention if symptoms occur.

Ingestion: May cause irritation. Flush out mouth with water. This material is well absorbed from the gastrointestinal tract.

SECTION 5 - FIRE FIGHTING MEASURES

Extinguishing Media:

Water spray, dry chemical, carbon dioxide, or foam as appropriate for surrounding fire and materials.

Fire and Explosion Hazards:

This material is assumed to be combustible. 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.

Firefighting Procedures:

As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill Response:

Wear approved respiratory protection, chemically compatible gloves, and protective clothing. Wipe up spillage or collect spillage using a high-efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately labeled container for disposal. Wash spill site.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling:

As a general rule, when handling, 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.

Storage:

Store at 20° to 25°C (68° to 77°F) [See USP Controlled Room Temperature].

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection:

Use a NIOSH-approved respirator, if it is determined to be necessary by an industrial hygiene survey involving air monitoring. In the event that a respirator is not required, an approved dust mask should be used.

Eye Protection:

Safety glasses with side shields are recommended. Face shields or goggles may be required if splash potential exists or if corrosive materials are present. Approved eye protection is preferred. Maintain eyewash facilities in the work area.

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. This material is extremely potent. 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 remove the inner gloves only after removing other personal protective equipment.

General hygiene considerations:

Handle in accordance with good industrial hygiene and safety practice.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Description of Tablets:

The 50 mg tablets are white to off white, round, biconvex, film coated tablets debossed 'B 50' on one side and plain on other side.

SECTION 10 - STABILITY AND REACTIVITY

Stability: The product is stable

Conditions to avoid: Unknown

Incompatible materials: Reducing agents and strong oxidizing agents

Chemical stability: Material is stable under normal conditions.

Hazardous Polymerization: No

Hazardous decomposition products:

When heated to decomposition, material emits toxic fumes of NOx, SOx, and HF. Emits toxic fumes under fire conditions.

SECTION 11 - TOXICOLOGY INFORMATION

Acute toxicity: LD_{50} : >2000 mg/kg (oral, rat & Mouse)
LD_{50} : >200 mg/kg (oral, Rabbit)

Carcinogenicity:

This product is not considered to be a carcinogen by IARC, NTP, or OSHA.

Other Carcinogenicity Data:

Oral carcinogenicity studies in male and female rats and mice given 5, 15, or 75 mg/kg per day for 2 years showed target organ effects attributable to bicalutamide's antiandrogenic activity. Testicular benign interstitial (Leydig) cell tumors occurred in male rats at all dose levels. Uterine adenocarcinomas occurred in female rats given 75 mg/kg per day. Also, a small increase in the incidence of hepatocellular carcinoma occurred in male mice given 75 mg/kg per day, and an increased incidence of benign thyroid follicular cell adenomas occurred in rats given 5 mg/kg per day or more. These neoplastic changes were progressions of non-neoplastic changes related to hepatic enzyme induction (which has been observed in animal toxicity studies, but not in humans receiving up to 150 mg per day). There were no tumorigenic effects suggestive of genotoxic carcinogenesis. Leydig cell hyperplasia has not been observed in humans receiving bicalutamide.

Mutagenicity Data:

No evidence of genotoxic activity was found in several in vitro and in vivo tests (including yeast gene conversion, Ames, E. coli, CHO/HGPRT, human lymphocyte cytogenetic, mouse micronucleus, and rat bone marrow cytogenetic tests).

Reproductive and Developmental Effects:

Bicalutamide may cause inhibition of spermatogenesis. In male rats dosed at 250 mg/kg/day, the precoital interval and time to successful mating were increased in the first pairing but no effects on fertility following successful mating were seen. These effects were reversed by 7 weeks after the end of an 11-week period of dosing. No effects on female rats dosed at 10, 50, and 250 mg/kg/day or their female offspring were observed. Administration of bicalutamide to pregnant females resulted in feminization of the male offspring, leading to hypospadias at all dose levels. Affected male offspring were also impotent.

SECTION 12 - ENVIRONMENTAL IMPACT INFORMATION

Ecological Information: Not biodegradable.

Rainbow trout LC50: > 7.1 mg/L/96 hr (static)

SECTION 13 - DISPOSAL INFORMATION

Waste must be disposed of in accordance with state, local and other environmental control regulations.

SECTION 14 - TRANSPORTATION INFORMATION

This product is not subject to the regulations for the safe transport of hazardous chemicals.

DOT: Not regulated
TDG: Not regulated
IATA: Not regulated
IMDG: Not regulated

SECTION 15 - REGULATORY INFORMATION

U.S. Regulatory Information: Not found

International Regulatory Information:

Hazard codes: T, Xn
Risk phrases: R48/23/24/25, R40, R61, R62

SECTION 16 - OTHER DATA

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall INTAS be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if INTAS has been advised of the possibility of such damages.