Acknowledgement

I take this opportunity to express my true feelings to all those who cooperated with me during the pursuance of the research work in this Thesis.

It is a privilege to express my sincere and heartfelt gratitude to my teacher and supervisor, Dr. Surekha Devi, Professor, Department of Chemistry, Faculty of Science, M. S. University of Baroda, for her dynamic guidance and enthusiastic approach throughout the course of this work. I am immensely indebted to her for her kind cooperation, sympathy, understanding and inspiration. It is due to her guidance and support that I have been able to make meaningful progress in the right direction to shape the destiny of this work.

I am grateful to Prof. A. K. Rakshit, Head, Department of Chemistry and Prof. A. C. Shah for providing the departmental facilities.

I gratefully acknowledge
- Dr. S. S. Madhava Rao for elemental analysis and Mr. Hitesh Raval for TGA.
- The Department of Biotechnology, Delhi, for financial assistance.
- Dr. Ashish Lele, NCL, Pune for providing the Extrusion and Testing facilities.
- Dr. Prashant Thakore, Mr. Adhvaryu and Mrs. Sheela Patel, G. S. F. C. Ltd, Vadodara and
Polychem Ltd., Nandesari, Vadodara, for providing the Molding and Testing facilities.

• Dr. B. D. Sarawade, NCL, Pune for carrying out the SEM analysis.

• IUCDAEF, Indore Center for the DSC analysis.

• IPCL, GSFC and NCL, Pune, for the literature facilities.

• Mrs. Srividya and Dr. Anjana Desai for assisting in biodegradation studies.

I wish to thank my friends, Alpesh, Paresh, Ragesh, Naveen, Sunilbhai, Sumit, Shrojal, and Dr. Sachin Sathe for their cooperation and support. Special thanks to my friend, Jayesh, for his constant encouragement and moral support.

Finally I thank all my colleagues, friends, teaching and non-teaching staff at the Department of Chemistry for their cooperation and support.

Above all, I am grateful to my family members, relatives and well-wishers who suffered a lot because of my inability to spend time with them during the course of this work. Without their devotion and cooperation it would not have been possible to bring this Thesis to its final form.

- Ishit Thakore