**Upstream in the Value Chain Own Activities** Downstream in the Value Chain Feedstock/ Raw Material **Intermediate Product Downstream Product** Industry Automotive Fuel Ethanol Sugarcane Methyl Ester Pharmaceutical • Crude Palm Oil Home Care and Personal Care Refined Glycerine (By Product) • Refined Palm Oil Palm Stearin Palm Fatty Acid Distillate Home Care and Personal Care Fatty Alcohol • Specialty Oleochemicals Palm Kernel Nut Refined Glycerine (By Product) • Refined Bleached Deodorized Palm Kernel Oil Home Care and Personal Care • Crude Palm Kernel Oil Fatty Alcohol • Specialty Oleochemicals Refined Glycerine (By Product) • Palm Stearin Fatty alcohol ethoxylate (TEX products) Home Care and Personal Care • Ethylene OxideEthylene Oxide Waste generated / Method of treatment Waste generated / Method of treatment Waste generated / Method of treatment Insulation / Used as a substitution in cement plant kiln • N/A • N/A Used desiccants / Used as a substitution in cement plant kiln • Fluorescent Tube / Reused Lube oil/ Used oil / Reused Spent CuZn Catalyst, Katalysa TOR612 / Export as a reused material Chemical bottles and bags / Burned in hazardous waste incinerators • Lab Waste / Burned in hazardous waste incinerators • Oil-contaminated materials, chemical materials / Used as a composition in fuel blending production • Degraded-chemical materials, such as Fatty Alcohol, Glycerine, Palm Oil / Used as a composition in fuel blending production • Used Filter / Used as a composition in fuel blending production • Jumbo Bag (chemical-contaminated packaging) / Used as a composition in fuel blending production MEG-contaminated water / Used as a composition in fuel blending production Waste oil / Used as a composition in fuel blending production Scum Oil / Used as a composition in fuel blending production • Glycerine Residue (Salt) / Used as a composition in fuel blending production and biogas production • Glycerine Residue (Sludge) / Used as a composition in fuel blending production and biogas production Used IBC / Sorted and traded Spent Activated Carbon/ Recycled • Wastewater sludge / Used as a composition in fuel blending production and biogas production • Glycerin Residue High Concentration used as a biogas production Solid waste/ Disposed by burying at a sanitary landfill site Wood waste / Sorted and traded Aluminium waste / Sorted and traded Stainless waste / Sorted and traded Wires / Sorted and traded Metal waste / Sorted and traded Plastic waste / Sorted and traded Paper waste (paper and boxes)/ Sorted and traded

Concrete waste / Sorted and traded