Sustainable sciences
DO MORE WITH LESS

BRONZE | Top 35% ecovadis Sustainability Rating

CHEMISTRY CAPABILITIES @ COMMERCIAL SCALE

Sulphonation	Sulphuric Acid (H_2SO_4, 98%) Oleum (25-65%) Liquid SO_3
Nitration	Conc Nitric Acid HNO_3 98% Strong Nitric Acid HNO_3, 72% Catalytic, Dilute Nitric Acid, 60%
Fluorination	HF gas HexaFluoroAcetone Catalytic Fluorination Halex (KF, etc) $NaBF_4$ / HBF_4
Chlorination **ChloroSulphonation**	Chlorine Cl_2 gas Thionyl Chloride, $SOCl_2$ Oxalyl Chloride HCl, PCl_3, PCl_5 ChloroSulphonic Acid, HSO_3Cl
Bromination	Liquid Bromine, Br_2 HBr
Cyanation	Sodium Cyanide, NaCN
Oxidation	Sodium Chlorate, $NaClO_3$ Nitric Acid, HNO_3 Oxygen, Catalytic
Reduction	Hydrogen, H_2 gas n-Butyl Lithium Sodium HydroSulphide (NaSH) Iron, Raney Nickel, Pd/Pt on C

DiAzotisation	Sodium Nitrite, $NaNO_2$
Alkylation	DiMethyl Sulphate (DMS) DiMethyl Carbonate Alcohol
Esterification	Aromatic to Aliphatic to Amino Acid
Carboxylation	Kolbe-Schmidt Reaction w/ Carbon DiOxide, CO_2
Ammonolysis	Ammonia gas, NH_3 Sodium Amide
Other Chemistries	Grignard + Hydrolysis Hydrolysis Catalytic Nitration with Spent Nitric Acid n-Butyl Lithium Chiral Separation Redox Reactions Flow Chemistry
Various Name Reactions	Appel Reaction Benzidine Rearrangement Blanc Reaction Balz Schiemann Reaction Fischer Esterification Friedal Craft Acylation Friedal Craft Aklylation Grignard Reaction Sandmayer Reaction Ullmann Reaction Vilsmeier Hack Reaction Halex Reaction

Sustainable Sciences Pvt. Ltd.

503 KESHAVA BKC, BANDRA EAST, MUMBAI 400051, INDIA

Landline: +91 22 4235 4000 enq@ssciences.net www.ssciences.net