**2-(Benzylsulfonyl)-6-chloropyrazine, OSM-S-XXX**

****

Representative Example:http://bit.ly/2kxy3zm

Sodium hydride (1.60 g, 67.1 mmol) was added to benzyl mercaptan (8 mL, 67.1 mmol) in toluene (64 mL). The mixture was heated to reflux for 1 h, then cooled to rt and a solution of 2,6-dichloropyrazine (10.0 g, 67.1 mmol) in toluene (64 mL) was added. The mixture was heated to reflux for 24 h, cooled to rt, then washed with water (80 mL). The organic layer was separated, dried (Na2SO4), filtered and concentrated under reduced pressure to give the crude sulfide as a yellow liquid (16.9 g, >100%). The crude product (4.91 g, 20.7 mmol) in acetic acid (50 mL) was added to a solution of potassium permanganate (3.5 g) in water (28 mL) and the mixture was stirred at rt for 1 h. The mixture was adjusted to pH 7 with NH4OH solution (40 mL) then filtered, extracted with CHCl3 (3 x 100 mL), dried (Na2SO4), filtered and concentrated under reduced pressure to give a cloudy yellow liquid (3.14 g, 56%); purified by automated flash chromatography on silica (Biotage Isolera, 6**–**75% ethyl acetate in hexanes) to give the title compound as a large white crystals (1.31 g, 24%); **m.p.** XX–XX ˚C; **IR** νmax (film) /cm-1 1334, 1119;**1H NMR** (300 MHz, CDCl3) δ: 8.85 (1H, s), 8.79 (1H, s), 7.54–7.05 (5H, m), 4,65 (2H, s); **13C NMR** (75 MHz, CDCl3) δ: 151.20, 149.31, 148.73, 141.40, 131.18, 129.41, 129.11, 126.39, 58.98; **m/z** (ESI+) 290.97 [M+Na]+ 100%, 558.93 [2M+Na]+ 74%; **HRMS** (ESI+) found 290.99692 [M+Na]+, C11H9ClN2O2SNarequires290.99652.

*ClC1=NC(S(CC2=CC=CC=C2)(=O)=O)=CN=C1*

*InChI=1S/C11H9ClN2O2S/c12-10-6-13-7-11(14-10)17(15,16)8-9-4-2-1-3-5-9/h1-7H,8H2*