| Functional group | Structure formula | Class of<br>compound | Example                                  |
|------------------|-------------------|----------------------|------------------------------------------|
| Amino            | -NH <sub>2</sub>  | Amines               | H—C—N—H<br>H—H<br>H—H                    |
| Carbonyl         | -СНО              | Aldehydes            | H H O H C C C C H H H H H H Acetaldehyde |
| Carbonyl         | -CO               | Ketone               | H O H                                    |
| Carboxyl         | R-COOH            | Carboxylic acid      | H O O O O O O O O O O O O O O O O O O O  |
| Hydroxyl         | R-OH              | Alcohols             | H H                                      |
| Phenyl           | R                 | Cyclic/aromatic      | CH₃<br>Benzl                             |

Table 1: A breakdown of various functional groups and their structure formulas