Carcinogen: Any substance that promotes the formation of cancer.
Mutagen: A physical or chemical agent that changes genetic material of an organism, increasing the frequency of mutations. Many mutations cause cancer, and therefore are also carcinogens.

IARC Classifications Of Carcinogens

Group 1 Human Carcinogen: Sufficient evidence in humans: solar radiation, smoking, alcohol, processed meats, crystalline silica, welding fumes, asbestos

Group 2a/b Probable/Possible Human Carcinogen: Limited evidence in humans, some evidence in animals: red meat, steroids, gasoline fumes, engine exhaust

Group 3 Not Classifiable: Insufficient evidence in animals and humans: static magnetic fields, fluorescent lighting, polyethylene

Carcinogen Standard Operating Procedures:
Handling: Use fume hoods and full PPE including appropriate gloves, lab coat and goggles. Remove any contaminated PPE and wash hands with soap and water after use.
Storage: Designate a work area for carcinogens such as a specific hood. After use, wipe down the work area and equipment. Store in ventilated and/or fire-proof cabinets.
Waste Disposal: P-listed materials such as acute toxins and carcinogens must be disposed of separately.

Group 2 Carcinogens: chloroform, dichloromethane, furan, HMPA, methyl methanesulfonate, nitrobenzene, nitromethane, carbon tetrachloride