Environmental Health and Safety 2220 Circle Drive Cleveland, Ohio 44106 P: (216) 368-2906 F: (216) 368-2236 cwruehs@case.edu

Sulfur (S-35)

Half Life: 87.5 days

Radiation: Low energy beta emitter

Shielding: 1 cm glass, plexiglass or plastic

Dosimetry: Body and ring badges may not be able to pick up S-35 due to the low energy

Detection/Measurement: GM tube with pancake probe. Wipe tests required.

General Precautions:

Maintain your occupational exposure to radiation As Low As Reasonably Achievable [ALARA] All persons handling radioactive material must be properly trainain Avoid generating mixed waste (combinations of radioactive, biological and chemical waste)

Special Precautions:

Store S-35 behind 1 cm glass, plexiglass or plastic when using Use tools to indirectly handle unshielded sources and potentially contaminated containers - no direct hand contact Ensure that an appropriate, operational survey meter is present in the work area and turned on whenever S-35 is handled to immediately detect contamination Shield waste containers as needed to maintain accessible dose rate ALARA

Safe Lab Practices:

Disposable gloves, lab coats, and safety glasses are the minimum PPE required when handling radioactive material Remove and discard potentially contaminated PPE prior to leaving the lab area where radioactive material is used. Cover all lab bench tops where radioactive material is handled with plastic-backed absorbent paper – change as needed Handle radioactive solutions in trays large enough to contain the material in the event of a spill Never eat, drink, smoke, handle contact lenses, apply

cosmetics, or take medicine in the lab - keep food, drinks, and cosmetics out of the lab entirely

Never pipette by mouth

Never store food and beverages in refrigerators/freezers used for storing radioisotopes – ensure that isotopes are secured at all times

x Avoid any skin contact with skin-