

X-RAY SCIENCE DIVISION

401/L2104

Facility Hazard Analysis

The purpose of this form is to serve as a summary of facility characteristics, recognized hazards, implemented hazard controls, pertinent sources of information, and incident reporting contacts.

Scope of work conducted in this facility: Organic and inorganic sample preparation and characterization; polymer thin film deposition using spin coater; sample bake-out and sample storage.

Hazardous materials/equipment associated with this facility:

| | | |
|---------------|------------------|-------------------|
| Bake-out Oven | Solvents | Compressed Gases |
| Centrifuge | Acids and Bases | Flammable Liquids |
| Ellipsometer | Syringes/Needles | |

Hazards associated with this facility:

| | | |
|------------------------|------------|------------------|
| Electrical | Chemical | Punctures |
| Thermally Hot Surfaces | Cryogenics | Compressed Gases |

Hazard controls implemented within this facility:

Engineered Controls

Flammable Storage Cabinet
Acid/Bases Storage Cabinets
Chemical Fume Hood
Lamellar Flow Hood
Safety Eyewash/Shower Station
GFCI Outlets

Procedural Controls

Satellite Waste Accumulation Area
Limited Access
Sharps/Glass Disposal Bins
ESAF Authorization
Task Specific SOP

PPE

Safety Glasses/Goggles
Chemical Resistant Gloves
Chemical Resistant Apron

Relevant ESH manual chapters that may be associated with this facility:

- 1) Ch. 4.1 – Hazard Communication
- 2) Ch. 4.3 – Laboratory & Chemical Safety
- 3) Ch. 9.1 – Electrical Safety

Pertinent safety training courses that may be associated with this facility:

- 1) ESH115 – Laboratory Hazard Communication Training
- 2) ESH574 – Chemical Waste Generator
- 3) Standard APS Training Courses for Users

Note: This is not intended to be an all-inclusive list of training that is required to work within this facility. The authoritative record of required training is depicted by the individual's JHQ.

Incident reporting contacts:

****Dial 911 in an emergency****

| | | |
|---------------------|-------------|-------------------|
| Lab Safety Captain: | Ray Ziegler | Extension: 2-5527 |
| TRR Group Leader: | Alec Sandy | Extension: 2-0281 |
| ES&H Coordinator: | Paul Rossi | Extension: 2-4192 |

Facility hazard analysis completed by: _____
Lab Safety Captain or designee Date

Reviewed and approved by: _____
ES&H Coordinator Date

_____ Date
Line Management

This hazard analysis must be reviewed and updated accordingly on an annual basis or whenever conditions change. Once approved, this hazard analysis must then be posted in a conspicuous space within the facility.

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Scope of work conducted in this facility: Organic and inorganic sample preparation and characterization

Hazardous materials/equipment associated with this facility:

| | | |
|-------------------|-------------------|-------------------|
| Oven | Solvents | Compressed Gases |
| Centrifuge | Acids and Bases | Flammable Liquids |
| Sharps (Syringes) | Ultraviolet Light | |

Hazards associated with this facility:

| | | |
|------------------|----------|------------------------|
| Electrical | Chemical | Thermally Hot Surfaces |
| Compressed Gases | | |

Hazard controls implemented within this facility:

Engineered Controls

Flammable Storage Cabinet
Chemical Fume Hood
Safety Eyewash/Shower Station
Ultraviolet Light Enclosure

Procedural Controls

Glass Disposal Bins
Limited Access
ESAF Authorization
Instrumentation SOPs

PPE

Safety Glasses/Goggles
Chemical Resistant Gloves
Lab coats

Relevant ESH manual chapters that may be associated with this facility:

- 1) Ch. 4.1 – Hazard Communication
- 2) Ch. 4.3 – Laboratory & Chemical Safety
- 3) Ch. 9.1 – Electrical Safety

Pertinent safety training courses that may be associated with this facility:

- 1) ESH115 – Laboratory Hazard Communication Training
- 3) Standard APS Training Courses for Users

Note: This is not intended to be an all-inclusive list of training that is required to work within this facility. The authoritative record of required training is depicted by the individual's JHQ.

Incident reporting contacts:

****Dial 911 in an emergency****

| | | |
|---------------------|--------------|-------------------|
| Lab Safety Captain: | Sungwon Lee | Extension: 2-3467 |
| TRR Group Leader: | Randy Winans | Extension: 2-7479 |
| ES&H Coordinator: | Paul Rossi | Extension: 2-4192 |

Facility hazard analysis completed by: _____
Lab Safety Captain or designee Date

Reviewed and approved by:

| | |
|------------------|-------|
| _____ | _____ |
| ES&H Coordinator | Date |
| _____ | _____ |
| Line Management | Date |

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