

# OSA CRYSTAL INVESTIGATION RISK ASSESSMENT FORM

This must be included with your report, logbook or entry. One form per entry.

STUDENT(S) NAME: \_\_\_\_\_ ID: \_\_\_\_\_

SCHOOL: \_\_\_\_\_

TEACHER/SUPERVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

**Investigation Title:** Crystal Investigation

## 1. Activity Description:

Students will grow crystals using a saturated solution of aluminium potassium sulfate (alum) or another approved salt. The process involves dissolving the salt in warm or hot water, allowing the solution to cool, and leaving it undisturbed over several days or weeks for crystal formation. Students will observe, record data, and handle crystals for analysis and display.

## 2. Hazards and Risks

Hazard	Possible Risk	Likelihood	Consequence	Risk Rating	Control Measures
Handling alum or other salts	Skin or eye irritation	Unlikely	Minor	Low	Wear safety glasses and gloves when preparing or handling solutions. Wash hands after use.
Heating water or solution	Burns or scalds	Possible	Moderate	Medium	Only heat water under teacher supervision. Use a hot water bath or kettle, not an open flame. Allow solutions to cool before handling.
Glassware or containers	Cuts from breakage	Unlikely	Minor	Low	Use plastic or borosilicate containers. Inspect glassware for cracks before use. Dispose of broken glass safely.
Spills and wet surfaces	Slips or falls	Unlikely	Minor	Low	Clean up spills immediately. Work in a dry, clear area.
Ingestion or inhalation of materials	Poisoning or irritation	Rare	Major	Medium	Never taste or inhale powders. Label containers clearly. Store solutions safely away from food areas.
Prolonged experiment duration	Contamination or mould growth	Possible	Minor	Low	Use lids or covers on containers. Dispose of old solutions safely. Monitor progress regularly.

## 3. Risk Evaluation

Overall risk: Low to Medium

Residual risk (after controls): Low

## 4. Control Measures Summary

- Conduct experiment under supervision.
- Use PPE: safety glasses, gloves, closed-toe shoes.
- Prepare only small quantities of solution.
- Ensure clear labelling of all containers.
- Clean workspace after each session.
- Dispose of leftover materials according to school chemical disposal guidelines.

## 5. Responsibilities

Role	Name	Responsibilities
Teacher/Supervisor	_____	Oversee preparation and safety, approve student plans.
Student/s	_____	Follow instructions, use PPE, report spills or incidents.