

Laboratory Risk Assessment

Procedure	Preparation of samples for diatom analysis
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Level of Risk	Medium
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Hazard	Risk	Recommended Control
Hydrogen peroxide - oxidising agent	Personal injury - chemical burns, eye injury,	<p>?? Lab coat, safety glasses and gloves must be worn at all time</p> <p>?? Hydrogen peroxide must be use in the fume cupboard with the window pulled down to the safe working height as indicated</p>
Hydrogen peroxide - oxidising agent	explosion/fire	<p>?? Spills on bench tops, floors etc. should be diluted with water before mopping up. Mopping up concentrated hydrogen peroxide with paper towel can cause fire</p> <p>?? Samples with high organic content should be treated with cold peroxide first and left to stand for a short time prior to heating</p>
Preparation of 50% Hydrochloric Acid from Concentrated Acid	Personal injury - chemical burns, eye injury	<p>?? Lab coat, safety glasses and gloves must be worn at all time</p> <p>?? Conc. HCl must be used in the fume cupboard with the window pulled down to the safe working height as indicated</p> <p>?? Always add acid to water.</p>
Unbalanced centrifuge	Damage to centrifuge rotor and risk of personal injury - <i>A broken rotor travelling at high speed is capable of breaking through the outer casing of the centrifuge.</i>	<p>?? Ensure that the sample buckets positioned opposite each other the rotor weigh the same.</p> <p><i>The centrifuge does have a light t indicate whether it is properly balanced, but this will only come once the speed of the rotor has reached 1000 rpm and this is ofte too late to prevent damage.</i></p>
Preparation of 1% ammonia sol ⁿ from concentrated ammonia solution	Personal injury - chemical burns, eye injury, lung damage due to fume inhalation	<p>?? Lab coat, safety glasses and gloves must be worn at all time</p> <p>?? Both Conc. and dilute Ammonia must be used in the fume cupboard with the window pulle down to the safe working heigh as indicated.</p>

Assessment for C.O.S.H.H.

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Substance/Procedure	Risk of exposure L/M/H*	HSE Exposure Limits (mg/m³)	Local controls used	Disposal	Emergency procedures
Hydrogen peroxide	L	1.5	F/C, PPE, DG,	A, B	1, 4, 6
Preparation of 50% Hydrochloric Acid from Concentrated Acid	L	7	F/C, PPE, DG,	B, G	1, 5, 6
Preparation of 1% ammonia sol ⁿ from concentrated ammonia solution	L	18	F/C, PPE, DG,	A, B	1, 4, 6

* Risk of exposure (Low, Medium or High) providing local controls are used
For key to symbols see separate table