

NC Job Risk Assessment

Name(s) Risk Team Members: L. Davis, D. Elling, R. Sabatini	Point Value → Parameter ↓	1	2	3	4	5	
Job Title: Operation of Braun Controlled Atmosphere Glove Box							
Job Number or Job Identifier: NC-JRA-008							
Job Description: loading, measuring, mixing, & storing pyrophoric, oxygen-sensitive, hygroscopic, and/or toxic materials and substances in Glove Box and maintenance issues with same	Frequency (B)	≤once/year	≤once/month	≤once/week	≤once/shift	>once/shift	
Training Procedures List (Optional):: TQ-COMPGAS1, HP-RCRIGEN3, HP-IND-220	Severity (C)	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability	
Approved by: R. Sabatini Date: 5/16/2011 Rev. #: 1	Likelihood (D)	Very Unlikely	Unlikely	Possible	Probable	Multiple	
Stressors (if applicable, please list all)							
				Reason for Revision (if applicable): As required 3 yr cycle		Comments:	

Activity	Hazard	Control(s)	Before Additional Controls					Control(s) Added to Reduce Risk	After Additional Controls					% Risk Reduction	
			Stressor	# of People A	Frequency B	Severity C	Likelihood D		Risk* AxBxCxD	Stressors	# of People A	Frequency B	Severity C		Likelihood D
Prepare Material and bring to Glove Box for loading	Spillage, fire, explosion, uncontrolled chemical reactions, deleterious human exposure.	Segregation of hazard types; Guidance in Working with Chemicals Subject Area; CMS; work planning procedures; PPE; area monitoring; ventilation; secondary containment; spill response; use of safer substitutes; Tier 1 inspections; container labeling; area posting; shelf-life monitoring;	N	1	3	3	2	18							

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	as per NC-JRA-003 "Work with Chemicals in laboratories", items 1 through 4	containers specific for the hazard and operation; personnel monitoring; secondary containment; hazardous waste controls; reaction vessels specific for the hazard													
Change gas cylinders	Being struck by object due to pressure release, Contaminated or mislabeled cylinder causing explosion or fire, failure of flexible lines. as per NC-JRA-004 "Compressed Gas Work"	Cylinder certification, storage area conditions, OSHA compliance, cylinders capped and secured when not in use, PPE, equipment inspection, wheeled gas carts, training, cylinder cart design, regulator design/certification, training, cylinders secured, isolation valves, use of properly rated regulator, no use of adapters, training, Tier 1, QA specifications	N	1	2	4	2	16							
Change vacuum pump oil	abrasions, contusions, cuts, exposure to contaminated vacuum pump oil, slips, falls, trips	PPE (gloves) proper tools, safety glasses, adequate lighting, MSDS, good housekeeping, proper container for oil transport, Tier 1 safety inspections, training	N	1	2	2	2	8							
Hook-up & operate Oxygen Analyzer	cuts, lifting strains, contusions, thermal hazard	proper tools, adequate lighting, good housekeeping, training, labeling for thermal hazard	N	1	2	2	2	8							
Working within glove-box	ignition of pyrophoric material, explosion, skin exposure to toxic material	regular maintenance schedule, spark-proof materials, adherence to SOP, check of positive pressure, glove integrity, training	N	1	3	3	3	27							

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Cleaning Chamber	spontaneous combustion due to static charge & contaminated atmosphere, spills, skin exposure to toxic material, inhalation exposure	training, MSDS, adequate supplies, maintenance schedule, glove integrity	N	1	2	3	3	18							

*Risk:	0 to 20	21 to 40	41-60	61 to 80	81 or greater
	Negligible	Acceptable	Moderate	Substantial	Intolerable