CoSHH Risk Assessment

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Work task /activity	SUPS Darkroom Film Emulsion Development		**Date**	**23/10/2023**
School/Faculty/Directorate	**Southampton University Photography Society (Under SUSU)**	**Assessor**	**Jonah Bond**	
Line Manager/Supervisor	***SUSU Activities***	**Location**	***SUPS Photo Studio, Building 42, Level 1***	
Task/activity frequency (how often)	Occasional, 1-2 weekly sessions	**Task/activity duration (how long)**	***1 hour***	
Brief details/comments	This is a COSHH assessment for the chemicals used in film emulsion development. This is an activity which SUPS will offer to its members following appropriate training and constant monitoring from a trained committee member. This document supports our darkroom risk assessment and general risk assessment.			

PART A												
(1) Risk identification					**(2) Risk assessment**				**(3) Risk management**			
Name of substance	**Hazardous properties (details of how the substance could cause harm, WELs, H phrases.)**	**Quantity used in process (g/kg/cc/ litres)**	**Explosive/energetic material? (Y/N)**	**Who might be harmed (user; those nearby; members of the public)**	**Inherent**			**Control measures (use the risk hierarchy)**	**Residual**			**Further controls (use the risk hierarchy)**
					Likelihood	**Impact**	**Score**		**Likelihood**	**Impact**	**Score**	
Ilfosol 3 Film Developer (Stored)	H302 Harmful if swallowed. H317 May cause an allergic skin reaction.	500ml bottle	N	Persons working with/close to chemical	4	4	16	-P101 If medical advice is needed, have product container or label at hand. P280 Wear protective gloves, and eye protection.	2	2	4	Keep educating members Committee to be vigilent in moniotoring safety of members Whenever pouring chemicals use a

	H318 Causes serious eye damage. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H400 Very toxic to aquatic life. HYDROQUINONE Long term (8 hour working limit) WEL 0.5 mg/m^3							P302+352 IF ON SKIN: Wash with plenty of soap and water. P405 Store locked up. P501 Dispose of contents/container in accordance with local regulations. Do not allow suspected or confirmed pregnant people to use chemicals				shallow tray to contain spills
Ilfostop Film Stop (Stored)	H315 Causes skin irritation. H319 Causes serious eye irritation. No WELS are required for this product	500ml bottle	N	Persons working with/close to chemical	4	3	12	P102 Keep out of reach of children. P280 Wear protective gloves, and eye protection P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.	2	2	4	Keep educating members Committee to be vigilent in monitoring safety of members Only allow trained committee members to handle undiluted chemicals

								Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/ attention. P501 Dispose of contents/ container in accordance with local regulations				Whenever pouring chemicals use a shallow tray to contain spills
Ilford Rapid Fixer (Stored)	H315 Causes skin irritation. H319 Causes serious eye irritation. SODIUM BISULPHITE Long-term exposure limit (8-hour TWA): WEL 5 mg/m³	500ml bottle	N	Persons working with/close to chemical	4	3	12	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P280 Wear protective gloves, and eye protection. P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/ container in accordance with local regulations.	2	2	4	Keep educating members Committee to be vigilant in monitoring safety of members Only allow trained committee members to handle undiluted chemicals Whenever pouring chemicals use a shallow tray to contain spills

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Ilford Multigrade (Stored)	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects.	500ml – 1L	N	Persons working with/close to chemical	4	4	16	P101 If medical advice is needed, have product container or label at hand. P280 Wear protective gloves, and eye protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302+P352 IF ON SKIN: Wash with plenty of water. P405 Store locked up. P501 Dispose of contents/ container in accordance with local regulations. Do not allow suspected or confirmed pregnant people to use chemicals	2	2	4	Keep educating members Committee to be vigilant in monitoring safety of members Only allow trained committee members to handle undiluted chemicals Keep locked with restriced access Whenever pouring chemicals use a shallow tray to contain spills

	H351 Suspected of causing cancer. H361fd Suspected of damaging fertility. Suspected of damaging the unborn child. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long-lasting effects. HYDROQUINONE Long-term exposure limit (8-hour TWA): WEL 0.5 mg/m³ SODIUM HYDROXIDE											

	Short-term exposure limit (15-minute): WEL 2 mg/m³											
Ilfosol Dev (mixed for use 1:9)	H302 Harmful if swallowed. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H400 Very toxic to aquatic life. HYDROQUINONE Long term (8 hour working limit) WEL 0.5 mg/m^3	10ml chemical to 90ml water	N	Persons working with/close to chemical	4	4	16	-P101 If medical advice is needed, have product container or label at hand. P280 Wear protective gloves, and eye protection. P302+352 IF ON SKIN: Wash with plenty of soap and water. P405 Store locked up. P501 Dispose of contents/container in accordance with local regulations. Do not allow suspected or confirmed pregnant people to use chemicals Do not allow suspected or confirmed pregnant people to use chemicals	2	2	4	Committee to be vigilant in monitoring safety of members Only allow trained committee members to handle undiluted chemicals Keep locked with restriced access Whenever pouring chemicals use a shallow tray to contain spills

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Ilfostop (mixed for use 1:19)	H319 Causes serious eye irritation No WELS are required for this product	15ml of chemical to 285ml water	N	Persons working with/close to chemical	4	3	12	P102 Keep out of reach of children. P280 Wear protective gloves, and eye protection P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/ attention. P501 Dispose of contents/ container in accordance with local regulations	2	2	4	Committee to be vigilant in monitoring safety of members Only allow trained committee members to handle undiluted chemicals Whenever pouring chemicals use a shallow tray to contain spills
Ilford Rapid Fix (mixed for use 1:14)	H315 Causes skin irritation. H319 Causes serious eye irritation. SODIUM BISULPHITE Long-term exposure limit (8-	60ml of chemical to 240ml wat	N	Persons working with/close to chemical	4	3	12	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P280 Wear protective gloves, and eye protection.	2	2	4	Committee to be vigilant in monitoring safety of members Only allow trained committee members to handle undiluted chemicals Whenever pouring chemicals use a

	hour TWA): WEL 5 mg/m³							P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/ container in accordance with local regulations.				shallow tray to contain spills
Ilford Multigrade (mixed for use)	H302 Harmful if swallowed. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H332 Harmful if inhaled. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer.		N	Persons working with/close to chemical	4	4	16	P101 If medical advice is needed, have product container or label at hand. P280 Wear protective gloves, and eye protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302+P352 IF ON SKIN: Wash with plenty of water. P405 Store locked up.	2	2	4	Committee to be vigilant in monitoring safety of members Only allow trained committee members to handle undiluted chemicals Keep locked with restriced access Whenever pouring chemicals use a shallow tray to contain spills

	H361fd Suspected of damaging fertility. Suspected of damaging the unborn child. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. EUH208 Contains HYDROQUINONE . May produce an allergic reaction. HYDROQUINONE Long-term exposure limit (8-hour TWA): WEL 0.5 mg/m³ SODIUM HYDROXIDE Short-term exposure limit							P501 Dispose of contents/ container in accordance with local regulations. Do not allow suspected or confirmed pregnant people to use chemicals				

	(15-minute): WEL 2 mg/m³											
Cinistill C41 Powder developer	H302 Harmful if swallowed H317 May cause allergic skin reaction H319 Causes serious eye irritation H332 Harmful if inhaled H335 May cause respiratory irritation	300ml	N	Persons working with/close to chemical	4	3	12	P261 Avoid breathing mist, dust, spray P264 Wash skin thoroughly after handling P280 Wear protective gloves, eye protection P301 + P312 IF SWALLOWED; call a POISON CENTER or doctor/physician if you feel unwell P302 + P352 IF ON SKIN: Wash with plenty of soap P304 + P340 IF POWDER INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	2	2	4	Committee to only handle chemical in powder form before dilution, and it will be kept in airtight packaging between uses Keep educating members Committee to be vigilant in monitoring safety of members Whenever pouring chemicals use a shallow tray to contain spills

								P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P337 + P313 If eye irritation persists: Get medical advice/attention. P363 Wash contaminated clothing before reuse P391 Collect spillage P501 Dispose of contents to an approved waste disposal plant				
C-41 BLIX A Powder	H314 Causes skin irritation H319 Causes eye irritation H335 May cause respiratory irritation	300ml	N	Persons working with/close to chemical	4	3	12	P261 Avoid breathing mist P264 Wash skin thoroughly after handling P280 Wear protective gloves, eye protection P302 + P352 IF ON SKIN: Wash with plenty of soap P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing	2	2	4	Committee to only handle chemical in powder form before dilution, and it will be kept in airtight packaging between uses Keep educating members Committee to be vigilant in monitoring safety of members Whenever pouring chemicals use a shallow tray to contain spills

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C-41 BLIX B Powder	H314 Causes skin irritation H319 Causes eye irritation H335 May cause respiratory irritation H373 Specific organ toxcity - Oral (Kidney H400 Acute aquatic toxicity	300ml	N	Persons working with/close to chemical	4	4	16	P261 Avoid breathing mist P264 Wash skin thoroughly after handling P273 Avoid release into the environment P280 Wear protective gloves, eye protection P302 + P352 IF ON SKIN: Wash with plenty of soap P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	2	2	4	Committee to only handle chemical in powder form before dilution, and it will be kept in airtight packaging between uses Keep educating members Committee to be vigilant in monitoring safety of members Whenever pouring chemicals use a shallow tray to contain spills

PART B	
Additional controls for storage	All Products must be kept in original containers and sealled tight stored away from direct sunlight in a cool area. As no chemicals are flamable, a secure yellow metal container isnt needed, but lockable grey storage cabinate may be beneficial to regulate access to chemicals and to contain any spills in storage.
Controls for safe disposal	All used chemicals must be returned to their original contained and labled as used. Stored in a safe manor and earmarked for collection to either the President or Darkroom manager
Method of safe disposal	Every chemical needs to be properly collected and stored in appropriate containers and disposed of byx a hazardous waste company. No chemicals to be poured into drains.

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Emergency plans	**Spills**	Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Clean spill with paper towels and dispose of them in a black bin bag; alert the Darkroom manager and President of any spills or near misses in the studio For Cinestill chemicals; Review fire and explosion hazards and safety precautions before proceeding with cleanup. Use appropriate personal protective equipment. Avoid contact with skin and eyes. Stop the spillage. Sweep up. For working solution, dike the spill. For small amounts less than one gallon flush to the sewer with large amounts of water. For larger spills, prevent liquid from entering sewers, waterways or low areas. Absorb spillage in inert material. Soak up with sawdust, sand, or other absorbent material. Remove non-usable solid material and/or contaminated soil for disposal in an approved and permitted landfill.
	Uncontrolled release	For enviromental spills; Prevent liquid from entering sewers, waterways or low areas. Discharge to sewer requires approval of permitting authority and may require pre-treatment. Contaminated surfaces should be cleaned using water.
	Fire	Wear self-contained breathing NIOSH/MSHA approved apparatus and protective clothing to prevent contact with skin and eyes. Fire or excessive heat may produce hazardous decomposition products. Use water to keep containers cool.
	Failure of LEV (fume cupboard, extract, etc)	If LEV is found to be defective before works begin then work must not occur. If LEV fails whilst working with powdered chemicals safely stop work and leave the darkroom alerting darkroom manager and president. If ventilation fails and persons show signs of lightheadedness/nausea leave darkroom and find refuge outdoors, alerting the darkroom manager and president who will then liase with the SUSU safety team. No unautherised persons to re enter room untill it is determined safe in this event.

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PART C					
Declaration by responsible manager: I confirm that this is a suitable & sufficient risk assessment for the above work activity / task.					
Signed	JonahBond	**Print name**	Jonah Bond	**Date**	23/10/2023
Signed	RhiannaSagalni	**Print name**	Rhianna Saglani	**Date**	30/10/2023
Declaration by users: I confirm that I have read this risk assessment, will implement the controls outlined herein, and will report to the responsible manager any incidents that occur or any shortcomings I find in this assessment.					
Signed		**Print name**		**Date**	
Signed		**Print name**		**Date**	
Signed		**Print name**		**Date**	
Signed		**Print name**		**Date**	
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Signed		**Print name**		**Date**	
Signed		**Print name**		**Date**	

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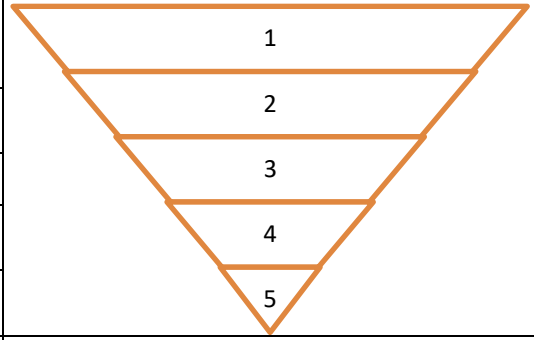
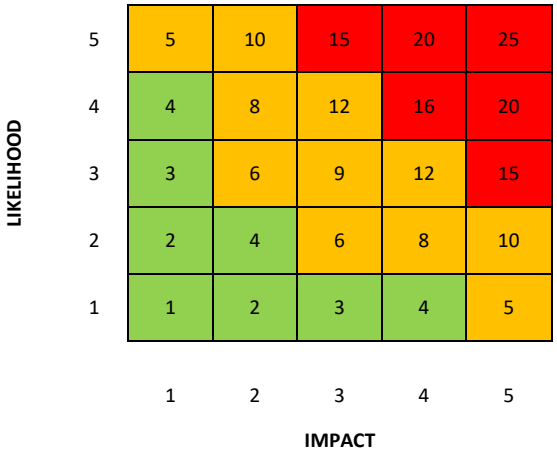
Assessment Guidance

1. Eliminate	Remove the hazard wherever possible which negates the need for further controls	If this is not possible then explain why	
2. Substitute	Replace the hazard with one less hazardous	If not possible then explain why	
3. Physical controls	Examples: enclosure, fume cupboard, glove box	Likely to still require admin controls as well	
4. Admin controls	Examples: training, supervision, signage		
5. Personal protection	Examples: respirators, safety specs, gloves	Last resort as it only protects the individual	



Likelihood	
1	Rare e.g. 1 in 100,000 chance or higher
2	Unlikely e.g. 1 in 10,000 chance or higher
3	Possible e.g. 1 in 1,000 chance or higher
4	Likely e.g. 1 in 100 chance or higher
5	Very Likely e.g. 1 in 10 chance or higher

Risk process

1. Identify the impact and likelihood using the tables above.
2. Identify the risk rating by multiplying the Impact by the likelihood using the coloured matrix.
3. If the risk is amber or red – identify control measures to reduce the risk to as low as is reasonably practicable.
4. If the residual risk is green, additional controls are not necessary.
5. If the residual risk is amber the activity can continue but you must identify and implement further controls to reduce the risk to as low as reasonably practicable.
6. If the residual risk is red do not continue with the activity until additional controls have been implemented and the risk is reduced.
7. Control measures should follow the risk hierarchy, where appropriate as per the pyramid above.
8. The cost of implementing control measures can be taken into account but should be proportional to the risk i.e. a control to reduce low risk may not need to be carried out if the cost is high but a control to manage high risk means that even at high cost the control would be necessary.

Impact		Health & Safety
1	Trivial - insignificant	Very minor injuries e.g. slight bruising
2	Minor	Injuries or illness e.g. small cut or abrasion which require basic first aid treatment even in self-administered.
3	Moderate	Injuries or illness e.g. strain or sprain requiring first aid or medical support.
4	Major	Injuries or illness e.g. broken bone requiring medical support >24 hours and time off work >4 weeks.
5	Severe – extremely significant	Fatality or multiple serious injuries or illness requiring hospital admission or significant time off work.