

COSHH Risk Assessment.

SECTION – A

Department/Location:

Name of Assessor:

Locality/ Directorate:

Endoscopy/Planned Care

Job Title

Hospital/Clinic/Surgery/Other

Endoscopy
Coordinator

Brecon and Llandrindod

Contact No/Ext:

Area in which COSHH Assessment applies, e.g. Ward/Department:

01874 615660

Endoscopy

Responsible Senior
Manager:

Date of Assessment:

19/2/24

Substance Details:

Note - Employers should regard a substance as hazardous to health if it is hazardous in the form in which it may occur in the work activity. A substance hazardous to health need not be just a chemical compound, it can also include mixtures of compounds, micro-organisms or natural materials, such as flour, stone or wood dust.

Chemical or Product

Complete Sections - A, B & D

Biological Agent/Micro-Organism

Complete Sections - A, C & D

Is the substance:

Acutely
Toxic



Flamma
ble



Oxidising



Corrosive



Damaging to the
Environment



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Serious Health Hazard



Health Hazard



Gas Under Pressure



Explosive



What is the substance used for or how does it appear in the workplace? (E.g.: Cleaning, maintenance, sharps, patient care, patient care by-product, biological agent, micro-organism)

Fixative for Histology Laboratories

Section – B

(Chemical or Product)

Substance Name:

Neutral Buffered Formalin

Supplier/Manufacturer's Name and Address:



Trade Name:

Neutral Buffered Formalin

Product Code:

Supplier/Manufacturer's Contact No: Emergency



What are the hazardous ingredients/ chemicals in the substance or the hazards associated with it? (List Below)

Chemical Name	CAS-No. EC-No. REACH No	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration: [%]
Formaldehyde 01-2119488953-20-xxxx	CAS 50-00-0 EC 200-001-8 (Substance)		Acute Toxicity Cat 3 - H 301, H311, H331 Skin Corrosive Cat 1B - H314 Skin Sensitizer Cat 1A - H317 Carcinogen Cat 1B - H350 Mutagen Cat 2 – H341	<5%
Methanol 01-2119433307-44-xxxx	CAS 67-56-1 EC 200-659-6		Acute Toxicity Cat 3 – H301, H311, H331 Flammable Liquid Cat 2 – H225 STOT SE Cat 1 – H370	<2%

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	(Substance)			
Monosodium Phosphate			None	<1%
Disodium Phosphate			None	<1%

Does the substance have a Workplace Exposure Limit: (Give Details)

EH40 OCCUPATIONAL EXPOSURE LIMITS (Formaldehyde):

2.00ppm / 2.50mg/m³ 15 minute STEL

2.00ppm / 2.50mg/m³ 8hr TWA

This product has an occupational exposure limit. Monitoring should be undertaken to ensure limits are not breached.

EH40 OCCUPATIONAL EXPOSURE LIMITS (methanol):

250ppm / 333 mg/m³ 15 minute STEL Sk

200ppm / 266mg/m³ 8hr TWA Sk

This product has an occupational exposure limit. Monitoring should be undertaken to ensure limits are not breached.

Sk = can be absorbed via the skin.

Use of Substance:

How is or how should the substance be used?

Fixative for Histology Laboratories

Precautions for safe handling:

Usage precautions: Avoid contact with the skin, eyes or clothing. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Read and follow manufacturer's recommendations. Wear full protective clothing for prolonged exposure and high concentrations. Do not eat drink or smoke in the same room as this material.

Advice on safe handling:

Usage precautions: Avoid contact with the skin, eyes or clothing. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Read and follow manufacturer's recommendations. Wear full protective clothing for prolonged exposure and high concentrations. Do not eat drink or smoke in the same room as this material.

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Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before re-using. Ensure that eye wash stations and safety showers are close to the workstation location.

How much of the material/ substance is used or created in the workplace by one person during a working day? Dependent on how many specimens taken during a theatre/endoscopy list.

The dilution instruction follows; used undiluted in pre prepared pots

How long is the worker exposed to the Material/ Substance during the working day?

Dependent on the number of specimens taken during a theatre/endoscopy list

<½ Hour

½ -
2
Ho
urs

2-4
Hours

4-8
Hours

>8
Hours

All
Da
y

yes

yes

Where is the Material/ Substance used?

Endoscopy
procedure
room

Outside

Inside Well
Ventilated

Yes

Inside Poorly
Ventilated

Confined Space

Other
Please
Specify

Attach a copy of Safety Data Sheet:

Confirm:



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Who is or could be exposed to the substance? (e.g., those using it, patients, visitors, service users, domestics, estates, contractors etc.)

Endoscopy Practitioner

Health care support worker

Endoscopist

Does the substance present additional risks to certain groups or individuals or the environment? (E.g. young people, asthmatics, immunocompromised, expectant mothers. flora & fauna)

Avoid dispersal of spilt material and run off and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air)

Continue to Section D - (Control Measures)

Section - C

(Biological Agent/Micro-organism)

Hazard - What Biological Agent/Micro-organism have workers/others the potential of being exposed to?

What are the significant risks associated with exposure to this hazard/substance?

Exposure method?

Inhalation: Ingestion: Absorption:

Who is or could be exposed to the substance? (e.g., those using it, patients, visitors, services users, domestics, estates, contractors etc.)

Does the substance present additional risks to certain groups or individuals or the environment? (E.g. young people, asthmatics, immunocompromised, expectant mothers. flora & fauna)

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Are all workers with the potential to be exposed trained or certified to work with or handling it?

Yes: No:

Are there any official guidance documents or safe systems of work available for dealing with the hazard and associated risks?

Yes: No:

If yes please attach.

Are there any special requirements for disposal, cleaning or laundering of potentially contaminated items/equipment?

Section D - Control Measures

Where appropriate could a less hazardous substance be used to do the same job? (If you don't know, please contact your supplier for further information.)

No: N N/A:

What controls are required for this substance, other than Personal Protective Equipment (PPE)? (E.g. Policies, procedures, protocols, specialised training, well-ventilated areas, not to be used in spray/mist form, local exhaust ventilation, authorised persons only, spillage kits, correct type of waste container etc.)

Training
Well ventilated area – air changes in endoscopy room
Spillage kit available in procedure room

Is there a detailed documented procedure in place for the activities involving the substance? (E.g. cleaning procedures for mixing & using cleaning products).

Yes: No:

If Yes please attach it to this form.

Is any Personal Protective Equipment (PPE) required when using the substance?yes

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Eye Protection	Gloves	Overalls/ Clothing	Mask/ Respirator	Other
	 <input type="checkbox"/>	<input type="checkbox"/> 		 <input type="checkbox"/>
State Type Required:	State Type Required:	State Type Required:	State Type Required:	State Type Required:
Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: Tightly-fitting goggles.	Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. > 8 hours (breakthrough time):	Use suitable protective equipment	If operating conditions cause high vapour concentrations or the TLV is exceeded, use full face respirator conforming to EN141, Type A or self-contained breathing apparatus	Suitable protective footwear

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Rubber
gloves -
nitrile

How should the substance be stored? (E.g. Locked cupboard, away from other substances, sharps bin, hazardous waste bag etc.

Stored in COSHH cabinet
Stored in locked gratnell in endoscopy procedure room

**Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers:**

Storage precautions: Keep away from oxidisers, heat & flames. Store with good ventilation. Keep containers tightly closed. Eliminate all sources of ignition and take precautions against static discharge.
Ventilation: Use local or general exhaust mechanical ventilation to control vapours. Note that vapours are heavier than air and can pool.

Have persons using/ coming into contact with this substance been provided with suitable information, instruction and training:

Yes:

No:

Precautions for safe handling:

Usage precautions: Avoid contact with the skin, eyes or clothing. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Read and follow manufacturer's recommendations. Wear full protective clothing for prolonged exposure and high concentrations. Do not eat drink or smoke in the same room as this material.

Advice on safe handling : Usage precautions: Avoid contact with the skin, eyes or clothing. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Read and follow manufacturer's recommendations. Wear full protective clothing for prolonged exposure and high concentrations. Do not eat drink or smoke in the same room as this material.

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before re-using. Ensure that eye wash stations and safety showers are close to the workstation location.

Other Precautions and Emergency Procedures

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Spillages: How should an accidental spillage or release of this substance be dealt with?

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazardous area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: if specialised clothing is required to deal with the spillage, take note of any information in section on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilt material and run off and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small spill: Stop leak without risk. Move containers from spill area. Absorb with an inert dry material or formaldehyde neutralising granules and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Note: sale pack of this item is no more than 25 litres.

First Aid: What action should be taken if the substance is:

(a) Swallowed?

DO NOT induce vomiting! Rinse mouth out with water, but do not give anything to drink. Seek medical attention.

(b) In contact with the eyes?

Flush immediately with plenty of water for at least 15 minutes, keeping eyelids open and avoiding contamination of unaffected eye. Seek medical attention.

(c) In contact with the skin?

Wash immediately with plenty of water. Remove any contaminated clothing and launder before reuse. If irritation persists or develops, seek medical attention.

(d) Inhaled?

Remove patient to fresh air, allow to rest and keep warm. If not breathing, give artificial respiration and seek medical attention.

(e) Other? (Please Specify) What if;

Potential Health Effects:

Contact dermatitis, skin / eye burns with permanent damage. Category 1B carcinogen based mainly on animal inhalation tests.

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Fire Precautions: (Flammable substances should also be identified within the ward/ department fire risk assessments)

What action should be taken in the event of fires involving this substance?

Extinguishing Media

Water spray/fog, foam, dry chemical or CO₂. Do not use water jets. Cool containers with water spray.

Special hazards

Will burn if involved in a fire. Risk of container burst / explosion. Vapours are heavy and can pool or travel long distances to ignition source. In fire may generate formaldehyde gas and carbon oxides.

Advice for fire-fighters

Special fire-fighting procedures: Fire fighters should use self contained breathing apparatus and protective clothing. Use water to keep exposed containers cool and disperse vapours. Vapours may form explosive mixtures. Keep water run-off out of sewers and water sources. Dike for water control. Cool containers exposed to flames with water from the side until well after the flames are extinguished. Move container from the fire area if it is safe to do so without risk.

Chemical Reactions: If there any other substances that this substance must not come into contact with please list below:

Reactivity : Product is stable under normal conditions of use. May polymerise in cold conditions or above 60C.

Chemical stability Product is stable under normal conditions of use.

Hazardous reactions: Reacts with strong oxidising agents. Can react with hydrochloric acid to form bis-chloromethyl ether (a potent human carcinogen).

Conditions to avoid: Keep away from heat and flames.

Incompatible materials Strong oxidising agents, metals.

Hazardous decomposition products: Formaldehyde gas and carbon oxides can be evolved when heating or burning.

Disposal: How should the substance be disposed of correctly?

Users should acquaint themselves with local regulations. 4% Formaldehyde comes under European Waste Codes H5 and H7 therefore, waste is considered Hazardous Waste; European Waste Catalogue Index No. 07 01 99, if not mixed with other waste. Disposal is usually carried out by incineration by a licensed waste material processor; stack gases may need to be scrubbed (See Section 5 above).

Disposal of packaging

Contaminated packing should be disposed of as Hazardous Waste, as above, according to local authority guidelines.

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Spillages to be placed into spill bag and placed into spill bin at rear of endoscopy department for collection.

Health Surveillance: Do staff using the substance require any health surveillance from the Occupational Health & Wellbeing Team?

Yes:

No:

If Yes give details:

Assessment of the Risk

Are all the control measures detailed above currently in place?

Yes:

No:

If these control measures are not in place or additional controls are required state actions to be taken below. Please note COSHH substance must not be used if adequate control measures are not in place.

Remedial Action(s) Required	Date for Completion

Are hazards to health adequately controlled with all control measures in place?

Yes:

No:

Current Risk Level: Using the standard risk assessment matrix below calculate the current risk level and chart below:

Consequence X Likelihood =

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Table 3 Risk Scoring- Consequence x Likelihood (C x L)

		Likelihood Score				
		1 Rare	2 Unlikely	3 Possible	4 Likely	5 Almost certain
Consequence Score	5 Catastrophic	5	10	15	20	25
	4 Major	4	8	12	16	20
	3 Moderate	3	6	9	12	15
	2 Minor	2	4	6	8	10
	1 Negligible	1	2	3	4	5

Low Risk	1-3	Action only if low cost remedy, easy to implement. Re-access if the process/ procedure, guidance or legislation change, and keep it under review.
Moderate Risk	4-6	Action that is cost effective in reducing the risk, planned and implmented within a reasonable timeframe.
High Risk	8-12	Urgent action to remove or to reduce the risk. To be escalated to senior management.
Extreme Risk	15-25	Immediate action to remove or to reduce the risk. Consideration given to stopping the process. Inform senior management and the Health & Safety Unit

Assessor(s) Name: [Redacted]	Assessor(s) Signature: [Redacted]	Date: 19/2/24
Line Manager's Name [Redacted]	Line Manager's Signature:	Date:
Remedial Actions Completed Date	Line Manager's Signature:	Reviewed on (Date) 8/8/24 [Redacted] (Occupational Health) 27/8/24 [Redacted] 27/9/25 [Redacted]

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Remember to attach the following:



Safe Systems of Work/ Task Procedure:

Section - D (continued)

(Additional Information)