

**C.O.S.H.H. ASSESSMENT**

**IPSWICH MUSEUMS**

**DEPARTMENT/ LOCATION: CONSERVATION LABORATORY**

**WORK ACTIVITY:**

**Uses of ACETONE**

- 1) Cleaning; removal of coatings.
- 2) Solvent for adhesives and consolidant resins
- 3) Degreasing.

**SUBSTANCE , (SYNONYMS, CONSTITUENTS):**

Dimethyl Ketone  
2 Propanone

**M.E.L.**

S.T.E.L. 1500 ppm / 3620 mg-3 (15 mins)  
O.E.S 750 ppm / 1810 mg-3 (8 hr TWA)

**USE:**

- Used neat on cotton wool swabs, from 200ml bench dispenser bottle, kept stoppered.
- If used from an open beaker, no more than 50mls, kept covered when not in use.
- Can be used mixed 50/50 with IMS, to slow evaporation rate
- No more than 200mls used neat in a covered beaker in a fume cupboard as a solvent for resins when mixing up consolidants.

**FREQUENCY AND DURATION OF EXPOSURE:**

As a cleaning agent very frequent – approx 8 hours a week.  
Dilution or consolidant resins – Four times per year, one hour duration.

**ASSESSMENT OF HAZARD:**

Hazard classification: **HIGHLY FLAMMABLE** 

**IRRITANT** 

Flash point : -20°C

If used as specified above inhalation risk is low

Degreasing agent – wear gloves. When decanting wear eye protection.

**MATERIAL SAFETY DATA SHEET ATTACHED:**

**YES**

**NO**

**CONTROL MEASURES** (including details of maintenance, monitoring, health surveillance, training, any other information):

Use with adequate ventilation or extraction, can allow use/evaporation of **300ml per hour**, quantities over 300mls must be used in fume cupboard or OES will be exceeded. However, it is advised that no more than 100ml is decanted and kept in a beaker on the bench at any one time.

Open beaker and swab containers must be covered.

All swabs must be used on a stick and not handled directly.

**PERSONAL PROTECTIVE EQUIPMENT** (including reasons for use):

Latex or vinyl gloves must be worn if there is a risk of skin contact.  
Eye protection must be worn during decanting.

**STORAGE** (incompatibles, access, authorised use):

Incompatible with oxidising agents eg. strong acids and bases.

**STORED FORM:**

25 L drum in outside flammable safe.  
1 L bottle in flammables cupboard in lab

**USED FORM:**

200ml bench bottle

**EMERGENCY PROCEDURE** (spills, first aid, disposal):

Spills

Ventilate area by opening windows and doors. Eliminate ignition sources.  
Mop up large spills with sand, and place outside. For large spills, evacuate area and use approved respirators with organic solvent filters, eye protection and gloves.

Fire

Highly flammable, explosion hazard. Use CO<sub>2</sub> or dry powder extinguisher.

First Aid

*Skin* – Irritant to skin, flush area with water.

*Eyes* – Irritant to eyes. Flush eyes with copious amounts of water for 15 minutes.  
Seek medical attention.

*Inhalation* – Remove to fresh air. Seek medical attention if necessary.

*Ingestion* - If conscious administer copious quantities of water, seek medical aid.

Disposal

Small quantities evaporate in a fume cupboard, Larger quantities by contractor

**SIGNATURE**

**DESIGNATION**

Senior Conservation Officer

**DATE:** 7<sup>th</sup> November 1997

**C.O.S.H.H. ASSESSMENT**

**IPSWICH MUSEUMS**

**DEPARTMENT/ LOCATION: CONSERVATION LABORATORY**

**WORK ACTIVITY:**

Uses of **INDUSTRIAL METHYLATED SPIRIT**

1. Cleaning
2. Solvent for adhesives & consolidants
3. As a de-watering agent.

**SUBSTANCE , (SYNONYMS, CONSTITUENTS):**

Industrial Methylated Spirit 74 op.  
( *Ethanol 95% vol; methanol 5% vol.* )

**M.E.L.**

**S.T.E.L.**

**O.E.S 1000ppm / 1920 mg.m-3 (8 hr TWA).**

**USE:**

- Diluted with water and detergent for cleaning, approx. 20ml IMS in 100ml of water.
- Undiluted as a solvent for adhesives, applied by brush or by cotton wool swab, 500ml bench use limit with ventilation, unless used in fume cupboard or outside.
- For dilution of consolidant resins (solid resin dissolved in acetone), in a fume cupboard.
- As a de-watering agent in various dilutions with water up to 100%. Use only in a covered tank with room extraction or in a fume cupboard.

**FREQUENCY AND DURATION OF EXPOSURE:**

As a cleaning agent diluted with water - very frequent, approx. 8 hours per week.  
Dilution of consolidant resins - Four times per year, one hour duration.  
Dewatering agent - infrequent once per year

**ASSESSMENT OF HAZARD:**

Hazard classification : **HIGHLY FLAMMABLE**



Flash point : 12°C

Relatively low risk, by inhalation as long as OES is not exceeded.

Mild degreasing agent, wear gloves, and eye protection if using over 500mls and/or decanting.

**MATERIAL SAFETY DATA SHEET ATTACHED:**

**YES**

**NO**

**CONTROL MEASURES** (including details of maintenance, monitoring, health surveillance, training, any other information):

Use with adequate ventilation or extraction, can allow use/evaporation of **325 ml per hour** quantities over this must be used in a fume cupboard.

It is advised that no more than 100ml is decanted into a beaker for bench use in any one hour period.

If used neat in the lab for over an hour extraction must be used.

**PERSONAL PROTECTIVE EQUIPMENT** (including reasons for use):  
 Gloves. If de-watering process is being carried out, and over 5 litres involved, coshh approved respirators with organic solvent filters must be worn in addition to extraction fans being used.  
 Wear eye protection if transfer/decanting of larger quantities of undiluted IMS (over 500mls.) is necessary.

**STORAGE** (incompatibles, access, authorised use):  
 Incompatible with **oxidising agents, concentrated Nitric & Sulphuric acids.**  
 Violent reaction with mixture of dichloromethane, sulphuric acid plus nitrate.  
**EXPLOSIVE** products formed by reaction with **ammonia + silver nitrate.**

**STORED FORM:**  
 25L Drum IMS 74op - chem. store  
 2.5L bottle - flammable cupboard

**USED FORM:**  
 200 ml bottle, IMS 74op bench.

**EMERGENCY PROCEDURE** (spills, first aid, disposal):

Spill  
 Extinguish sources of ignition, dilute with water if practicable; or soak up small spills with absorbant towel, dampen with water and dispose.

Fire  
 Extinguish with water, CO<sub>2</sub> or dry chemical extinguisher, or fire blanket

First Aid

- Skin - Wash area with water.
- Eyes - Wash with plenty of water for at least 10 minutes, holding the eye open. Obtain medical attention ASAP.
- Ingestion - Wash mouth out with water, do not induce vomiting obtain medical attention ASAP

Disposal  
 Small quantities dilute with water and dispose down drain.  
 Large amounts should be professionally collected and disposed.

<b>SIGNATURE</b>		<b>DESIGNATION</b>	
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**DATE:**

**C.O.S.H.H. ASSESSMENT**

**IPSWICH MUSEUMS**

**DEPARTMENT/ LOCATION: CONSERVATION LABORATORY**

**WORK ACTIVITY:**

**Use of WHITE SPIRIT**

**SUBSTANCE , (SYNONYMS, CONSTITUENTS):**

WHITE SPIRIT  
(*Petroleum spirit, Stoddard solvent, Turpentine substitute, Mineral spirit*)  
Mixture of alkanes BP 150 - 200°C

**M.E.L.**

**S.T.E.L.** 150 ppm / 850 mg-3 (15 min)  
**O.E.S** 100 ppm / 566 mg-3 ( 8 hr TWA)

**USE:**

Usually used neat on cotton wool swabs:

- As a cleaning agent and solvent for varnishes, waxes and coatings.
- Solvent for cleaning wood and leather.
- Occasionally used as a mixture with Industrial Methylated Spirit, 3:1 or 4:1

Used from a 200ml bench bottle, quantities can be decanted into a 100ml beaker for mixing with other solvents or used alone for bench use, beaker should be kept covered

**FREQUENCY AND DURATION OF EXPOSURE:**

Frequent use as a cleaning agent, but used in small quantities. Approx. once per week. Larger quantities should be used in a fume cupboard.

**ASSESSMENT OF HAZARD:**

Hazard classification: **HIGHLY FLAMMABLE** 

Flash point: 40°C

Defatting agent, avoid contact with skin, can cause irritation to the eyes.

Moderately toxic by ingestion.

White spirit has a noticeable odour, good ventilation or suitable extraction should be ensured.

If used as specified, risk is low.

**MATERIAL SAFETY DATA SHEET ATTACHED:**

YES

✓

NO

**CONTROL MEASURES** (including details of maintenance, monitoring, health surveillance, training, any other information):

Use with adequate ventilation and/or extraction

Allowable use or evaporation of 76ml in one hour, with adequate ventilation or extraction, more than this will exceed OES.

Extended use should be in fume cupboard eg. Drying of treated objects.

**PERSONAL PROTECTIVE EQUIPMENT** (including reasons for use):

Wear gloves, rubber or vinyl.  
Eye protection should be worn when decanting.

**STORAGE** (incompatibles, access, authorised use):

Keep away from sources of heat or ignition.  
Do not store adjacent to oxidising agents, may react if comes into contact.

**STORED FORM:**

25L drum in outside solvent safe.

**USED FORM:**

200ml bench chemical bottle.

**EMERGENCY PROCEDURE** (spills, first aid, disposal):

Spills – For large spills evacuate the area, eliminate all sources of ignition, ventilate by opening doors and windows. Absorb spill onto sand or vermiculite, clear into containers for disposal.

Fire – extinguish with dry chemical, foam or sand.

First Aid

*Skin* – May cause irritation, wash area thoroughly with running water.  
If necessary remove contaminated clothing .

*Eyes* - Flush eyes with copious amounts of water for 15 minutes.  
Seek medical attention if irritation persists.

*Ingestion* – Do not induce vomiting , give water or milk to drink. Obtain medical help & advice

*Inhalation* – Remove casualty from danger area, obtain medical help if required.

Disposal

Must be disposed of professionally by chemical disposal service.  
Do not put down drain.

**SIGNATURE**

**DESIGNATION**

**DATE:** 27<sup>th</sup> November 1997