

**Section 1. Identification****1.1 Product Identifier** 3049

Product Name	EMBALMING FLUID - (Modified Nottingham Formulation)
CAS Number	Mixture
REACH Registration No	A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

**1.2 Relevant identified uses of the substance or mixture & uses advised against**

Uses of Material	Chemical for industrial and laboratory use. Not suitable for domestic use.
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**1.3 Supplier** Vickers Laboratories Ltd

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(Have this document to hand)**Section 2. Hazards Identification****2.1 Classification of the substance or mixture****Classification according to regulation 1272/2008/EC**

Flammable liquid, category 2	H225: Highly flammable liquid and vapour.
Skin corrosion/irritation, category 1B	H314: Causes severe skin burns and eye damage.
Acute toxicity, category 4 (oral)	H302: Harmful if swallowed.
Skin sensitization, category 1	H317: May cause an allergic skin reaction.
Germ cell mutagenicity, category 2	H341: Suspected of causing genetic defects.
Carcinogenicity, category 1B	H350: May cause cancer.
Spec target organ tox - single, category 2	H371: May cause damage to organs.

**2.2 Label elements****Labelling according to regulation 1272/2008/EC**

Signal word	Danger
Hazard Pictograms	



**Hazard Statements** Highly flammable liquid and vapour. Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause cancer. Suspected of causing genetic defects. May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statements** Keep away from heat / sparks/open flames/hot surfaces - No smoking. Avoid breathing mist/vapours/spray. Use personal protective equipment as required. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

## Section 3. Composition

### 3.2 Mixtures

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Ethanol	64-17-5	200-578-6	01-2119457610-43-XXXX	~66.1%	Flam. Liq. 2, Eye Irrit. 2
Phenol	108-95-2	203-632-7	01-2119471329-32-XXXX	~8.9%	Acute Tox. 3 (O), Acute Tox. 3 (D), Skin Corr. 1B, Acute Tox. 3 (I), Muta. 2, STOT RE 2, Aquatic Chronic 2
Methanol	67-56-1	200-659-6	01-2119433307-44-XXXX	~3.5%	Flam. Liq. 2, Acute Tox. 3 (O), Acute Tox. 3 (D), Acute Tox. 3 (I), STOT SE 1
Formaldehyde	50-00-0	200-001-8	01-2119488953-20-XXXX	~2.9%	Acute Tox. 3 (O), Acute Tox. 3 (D), Skin Corr. 1B, Acute Tox. 3 (I), Eye Dam. 1, Skin Sens. 1, Muta. 2, Carc. 1B

## Section 4. First Aid

### 4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. <b>OBTAIN MEDICAL ATTENTION URGENTLY.</b>
Skin	Remove contaminated clothing immediately avoiding contamination of unaffected areas. Swab contaminated skin with a mixture of 70 parts polyethylene glycol and 30 parts alcohol. Alternatively use glycerol or polyethylene glycol, or if solvents are not available flush with water for at least 10 minutes. <b>OBTAIN MEDICAL ATTENTION URGENTLY.</b>
Inhalation	Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. <b>OBTAIN MEDICAL ATTENTION URGENTLY.</b>
Ingestion	If conscious give plenty of water to drink. Do not induce vomiting. Convulsions may occur and cause unconsciousness. If unconscious place in the recovery position. <b>OBTAIN MEDICAL ATTENTION URGENTLY.</b>
Personal protection for first aiders	Wear protective gloves / eye protection.

### 4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

## Section 5. Fire Fighting

### 5.1 Extinguishing media

Extinguishing Media	Water spray, alcohol resistant foam, dry powder or carbon dioxide. Use water spray to keep fire exposed containers cool.
Unsuitable Media	Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

Hazards	Vapour-air mixtures are explosive.
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### 5.3 Advice for firefighters

Advice for firefighters

Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.

## Section 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection

Ensure no sources of ignition. Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so.

### 6.2 Environmental precautions

Environmental

Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

### 6.3 Methods and material for containment and cleaning up

Major Spillage

Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.

Minor Spillage

Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.

### 6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

## Section 7. Storage & Handling

### 7.1 Precautions for safe handling

All transfer systems should be earthed to prevent accumulation of static electricity. Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.

### 7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Protect from direct sun and store away from sources of ignition. Keep containers closed when not in use. Keep well separated from oxidising agents.

### 7.3 Specific end use(s)

See section 1.2.

## Section 8. Workplace Exposure & Personal Protection

### 8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits			
			Long Term (8hr TWA)		Short Term 15min period	
Ethanol	64-17-5	~66.1%	1000.0 ppm	1920.0 mg/m-3	-	-
Phenol	108-95-2	~8.9%	2.0 ppm	8.0 mg/m-3	4.0 ppm	16.0 mg/m-3
Methanol	67-56-1	~3.5%	200.0 ppm	266.0 mg/m-3	250.0 ppm	333.0 mg/m-3
Formaldehyde	50-00-0	~2.9%	2.0 ppm	2.5 mg/m-3	2.0 ppm	2.5 mg/m-3

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

### 8.2 Exposure controls

Respiratory Protection

Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus.

Hand Protection

Use PVC gauntlets.

Eye Protection

Use chemical full face shield.

Skin Protection

Wear PVC oversuit.

Special Hazards

No special precautions required.

## Section 9. Physical & Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance	Clear colourless to pale brown liquid.
Odour	Fresh and characteristic of phenol.
pH	Not applicable
Boiling Point	Not available
Melting Point	Not applicable
Flash Point	12°C (Open cup)
Upper Flammable Limit	19%
Lower Flammable Limit	3.3%
Auto Ignition	363°C
Explosive Properties	Moderate/severe in confined spaces.
Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	0.870
Water Solubility	Completely soluble in water.

### 9.2 Other information

No data available.

## Section 10. Stability & Reactivity

10.1 Reactivity	No data available.
10.2 Chemical Stability	Stable under normal conditions
10.3 Possibility of hazardous reactions	No data available.
10.4 Conditions to Avoid	Hot surfaces, naked flames or other sources of ignition.
10.5 Incompatible Materials	Strong oxidising agents. Mineral acids. Alkalis.
10.6 Hazardous Decomposition Products	None unusual. Burning will produce smoke, carbon monoxide and/or carbon dioxide.

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

Eyes	The liquid will cause severe burns. Damage can range from severe irritation and corneal scarring to permanent blindness.
Skin	Causes skin irritation.
LD50 Skin	Not available
Ingestion	Causes severe corrosion of the mouth, throat and gastro-intestinal tract.
LD50 Oral	Not available
Inhalation	Exposure to vapour concentrations above the occupational exposure limits will produce irritation of the eyes, nose, throat and respiratory tract. High concentrations of vapour may cause digestive and nervous disorders, pulmonary oedema or liver and kidney failure.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	May cause cancer. Contains Formaldehyde. This has been extensively studied.
Mutagenicity	May be a mutagen.
Reproductive Effects	None identified.

## Section 12. Ecological

12.1 Toxicity	Slightly toxic to aquatic species but will bioaccumulate.
LC50 Algal	Not available
LC50 Crustacea	Not available

LC50 Fish	Not available
12.2 Persistence and degradability	No data available.
12.3 Bioaccumulative potential	No data available.
12.4 Mobility in soil	No data available.
12.5 Results of PBT & vPvB assessment	Assessment not required.
12.6 Other adverse effects	None known at present.

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

Disposal Methods	Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems due to high risk of explosion.
Contaminated Packaging	Use a licensed waste disposer. Do not attempt to burn any residual liquids due to risk of explosion. Clean out with a weak sodium hydroxide solution then wash out thoroughly with water.

## Section 14. Transport Information

14.1 UN Number	2929
14.2 Proper Shipping Name	Toxic liquid, flammable, organic, N.O.S. (Ethanol, Phenol, Formaldehyde)
14.3 Transport classes	
UN classification	6.1
Subsidiary hazard(s)	3
Transport category	2
ADR Hazard ID	63
Tunnel Restriction Code	D/E
14.4 Packing Group	II
14.5 Environment hazards	See section 12.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	Not transported in bulk.



## Section 15. Regulatory Information

### 15.1 Safety, health and environment regulations specific for substance/mixture.

#### Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification	Flammable liquid, category 2; Skin corrosion/irritation, category 1B; Acute toxicity, category 4 (oral); Skin sensitization, category 1; Germ cell mutagenicity, category 2; Carcinogenicity, category 1B; Spec target organ tox - single, category 2
Signal word	Danger
Hazard Pictograms	
Hazard Statements	H225, H302, H314, H317, H350, H341, H373 Highly flammable liquid and vapour. Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause cancer. Suspected of causing genetic defects. May cause damage to organs through prolonged or repeated exposure.
Precautionary Statements	P210, P261, P281, P305+P351+P338

Keep away from heat / sparks/open flames/hot surfaces - No smoking. Avoid breathing mist/vapours/spray. Use personal protective equipment as required. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

#### 15.2 Chemical safety assessment

Assessment not required.

### Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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