

Section 1. Identification

1.1 Product Identifier 0312

Product Name EMBALMING FLUID - (Thiel Venous Infusion)

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.

1.3 Supplier Vickers Laboratories Ltd



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Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation (EC) 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720 & UK SI 2020/1567

Flammable liquid, category 3	H226: Flammable liquid and vapour.
Skin corrosion/irritation, category 2	H315: Causes skin irritation.
Serious eye damage/irritation, category 1	H318: Causes serious eye damage.
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.
Reproductive toxicity, category 1B	H360: May damage fertility or the unborn child.

2.2 Label elements

Labelling according to regulation (EC) 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720 & UK SI 2020/1567

Signal word Danger

Hazard Pictograms



Hazard Statements	Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. May cause cancer. May damage fertility or the unborn child.
Precautionary Statements	Use personal protective equipment as required. Keep away from heat / sparks/open flames/hot surfaces - No smoking. Avoid breathing mist/vapours/spray. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. 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.	EC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Ethanol	64-17-5	200-578-6	01-2119457610-43-XXXX	<17%	Flam. Liq. 2, Eye Irrit. 2
Ammonium nitrate	6484-52-2	229-347-8	01-2119490981-28-XXXX	<11%	Ox. Sol. 3, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3 (I)
Formaldehyde	50-00-0	200-001-8	01-2119488953-20-XXXX	<3%	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
Morpholine	110-91-8	203-815-1	01-2119496057-30-XXXX	<2.5%	Flam. Liq. 3, Skin Corr. 1B, Acute Tox. 4 (O), Acute Tox. 4 (D), Acute Tox. 4 (I)
Boric Acid	10043-35-3	233-139-2	01-2119486683-25-XXXX	<1.6%	Repr. 1B
Methanol	67-56-1	200-659-6	01-2119433307-44-XXXX	<1.5%	Flam. Liq. 2, Acute Tox. 3 (O), Acute Tox. 3 (D), Acute Tox. 3 (I), STOT SE 1
Chlorocresol	59-50-7	200-431-6		<0.4%	Acute Tox. 4 (O), Acute Tox. 4 (D), Eye Dam. 1, Skin Sens. 1, Aquatic Acute 1

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. OBTAIN MEDICAL ATTENTION.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use.
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. OBTAIN MEDICAL ATTENTION URGENTLY.
Ingestion	If conscious give plenty of water to drink. Do not induce vomiting. 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. OBTAIN MEDICAL ATTENTION URGENTLY.
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.

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 container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. 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	<17%	1000.0 ppm	1920.0 mg/m-3	-	-
Ammonium nitrate	6484-52-2	<11%	-	-	-	-
Formaldehyde	50-00-0	<3%	2.0 ppm	2.5 mg/m-3	2.0 ppm	2.5 mg/m-3
Morpholine	110-91-8	<2.5%	10.0 ppm	36.0 mg/m-3	20.0 ppm	72.0 mg/m-3
Boric Acid	10043-35-3	<1.6%	-	-	-	-
Methanol	67-56-1	<1.5%	200.0 ppm	266.0 mg/m-3	250.0 ppm	333.0 mg/m-3
Chlorocresol	59-50-7	<0.4%	-	-	-	-

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 solvent resistant gloves.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
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	Characteristic.
pH	Not applicable
Boiling Point	Approx 86°C
Melting Point	Approx 9.5°C
Flash Point	36°C (Closed cup)
Upper Flammable Limit	3.3
Lower Flammable Limit	12.2
Auto Ignition	336°C
Explosive Properties	Moderate/severe in confined spaces.
Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	Not available
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	Bromine. Sodium hypochlorite, diethyl zinc, dialkylaluminium solutions, and phosphorous trioxide. Nitric acid, hydrogen peroxide, sodium and chloroform and potassium tertiary butoxide. Lead perchlorate.
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 conjunctival irritation and corneal damage. High concentrations of vapour may be irritating to the eyes.
Skin	Repeated or prolonged contact may defat the skin producing irritation and dermatitis. May cause skin sensitisation.
LD50 Skin	Not available
Ingestion	Ingestion will cause severe internal irritation and damage, nausea, vomiting, abdominal pains and diarrhoea.
LD50 Oral	Not available
Inhalation	Exposure to vapour concentrations above the occupational exposure limits may produce irritation of the eyes and respiratory tract. High concentrations of vapour may produce central nervous system depression and unconsciousness. Symptoms will be similar to those following ingestion.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	May cause cancer. Contains Formaldehyde. This has been extensively studied.
Mutagenicity	Suspected of causing genetic defects.

Reproductive Effects	Evidence of reproductive effects.
Other Information	Contains methanol. This will not constitute a special problem since ethanol is preferentially metabolised. Chronic intoxication may however produce damage to the optic nerve.

Section 12. Ecological

12.1 Toxicity	Substantially biodegradable in water, biological oxygen demand (B.O.D.) 5 day 70%.
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.

Section 14. Transport Information

14.1 UN Number	1170
14.2 Proper Shipping Name	Ethanol solution
14.3 Transport classes	
UN classification	3
Subsidiary hazard(s)	None
Transport category	3
ADR Hazard ID	30
Tunnel Restriction Code	D/E
14.4 Packing Group	III
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) as amended by GB-CLP Regulation, UK SI 2019/720 & UK SI 2020/1567

Classification	Flammable liquid, category 3; Skin corrosion/irritation, category 2; Serious eye damage/irritation, category 1; Skin sensitization, category 1; Germ cell mutagenicity, category 2; Carcinogenicity, category 1B; Reproductive toxicity, category 1B
Signal word	Danger
Hazard Pictograms	



Hazard Statements	H226, H315, H317, H318, H341, H350, H360 Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. May cause cancer. May damage fertility or the unborn child.
Precautionary Statements	P281, P210, P261, P301+P330+P331, P303+P361+P353, P305+P351+P338 Use personal protective equipment as required. Keep away from heat / sparks/open flames/hot surfaces - No smoking. Avoid breathing mist/vapours/spray. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. 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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