



SAFETY DATA SHEET

Perma-Co Co-Injection

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name Perma-Co Co-Injection

Product number 350019

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Embalming Chemical

1.3. Details of the supplier of the safety data sheet

Supplier The MazWell Group Ltd.
Units 11/14-15 Ardglan Industrial Estate,
Whitchurch, Hampshire,
RG28 7BB, United Kingdom
+44 (0)1256-893883
+44 (0)1256-893868
enquiries@themazwellgroup.com

1.4. Emergency telephone number

Emergency telephone +44 (0)1256 893883 (Mon- Fri 9:00 am - 4:30 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226

Health hazards Acute Tox. 4 - H332 STOT SE 1 - H370

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word

Danger

Hazard statements

H226 Flammable liquid and vapour.
H332 Harmful if inhaled.
H370 Causes damage to organs .

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Precautionary statements	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P260 Do not breathe vapour/ spray.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P308+P311 IF exposed or concerned: Call a POISON CENTER or doctor.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	Methanol
Supplementary precautionary statements	<p>P233 Keep container tightly closed.</p> <p>P240 Ground and bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical equipment.</p> <p>P242 Use non-sparking tools.</p> <p>P243 Take action to prevent static discharges.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P312 Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.</p> <p>P405 Store locked up.</p>

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

methanol			10 - <25%
CAS number: 67-56-1	EC number: 200-659-6	REACH registration number: 01-2119433307-44-XXXX	
Voluntary disclosure.			
Classification			
Flam. Liq. 2 - H225			
Acute Tox. 3 - H301			
Acute Tox. 3 - H311			
Acute Tox. 3 - H331			
STOT SE 1 - H370			

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	If in doubt, get medical attention promptly.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Get medical attention.

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Ingestion	Do not induce vomiting unless under the direction of medical personnel. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention.
Skin contact	Remove contaminated clothing and rinse skin thoroughly with water. Wash skin thoroughly with soap and water. Wash contaminated clothing before reuse. Get medical attention promptly if symptoms occur after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Effects may be delayed.
Inhalation	Harmful if inhaled. May cause nausea, headache, dizziness and intoxication.
Ingestion	Symptoms following overexposure may include the following: Intoxication. Nausea, vomiting.
Skin contact	May cause nausea, headache, dizziness and intoxication.
Eye contact	May cause temporary eye irritation.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Flammable liquid and vapour. Forms explosive mixtures with air.
Hazardous combustion products	Carbon dioxide (CO ₂). Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid inhalation of vapours and contact with skin and eyes. For personal protection, see Section 8.
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6.2. Environmental precautions

Environmental precautions	Avoid discharge into drains and the aquatic environment.
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6.3. Methods and material for containment and cleaning up

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Methods for cleaning up Eliminate all sources of ignition. Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Dispose of contents/container in accordance with national regulations.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Avoid inhalation of vapours and contact with skin and eyes.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Provide eyewash station and safety shower. Wash promptly with soap and water if skin becomes contaminated. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

methanol

Long-term exposure limit (8-hour TWA): WEL 200 ppm 266 mg/m³

Short-term exposure limit (15-minute): WEL 250 ppm 333 mg/m³

Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through the skin.

methanol (CAS: 67-56-1)

DNEL	Workers - Inhalation; Long term systemic effects, local effects: 260 mg/m ³
	Workers - Inhalation; Short term systemic effects, local effects: 260 mg/m ³
	Workers - Dermal; Long term systemic effects: 40 mg/kg/day
	Workers - Dermal; Short term systemic effects: 40 mg/kg/day
	General population - Inhalation; Long term systemic effects, local effects: 50 mg/m ³
	General population - Inhalation; Short term systemic effects, local effects: 50 mg/m ³
	General population - Dermal; Long term systemic effects: 8 mg/kg/day
	General population - Dermal; Short term systemic effects: 8 mg/kg/day
	General population - Oral; Long term systemic effects: 8 mg/kg/day
	General population - Oral; Short term systemic effects: 8 mg/kg/day

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PNEC	Fresh water; 20.8 mg/l
	Fresh water, Intermittent release; 1540 mg/l
	marine water; 2.08 mg/l
	STP; 100 mg/l
	Sediment (Freshwater); 77 mg/kg
	Sediment (Marinewater); 7.7 mg/kg
	Soil; 100 mg/kg

8.2. Exposure controls

Appropriate engineering controls	Observe any occupational exposure limits for the product or ingredients. Use explosion-proof ventilating equipment.
Eye/face protection	The following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.
Other skin and body protection	Wear appropriate clothing to prevent skin contamination.
Hygiene measures	Do not smoke in work area. Provide eyewash station and safety shower. Wash promptly if skin becomes contaminated. Wash contaminated clothing before reuse. Wash at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked.
Environmental exposure controls	Keep container tightly sealed when not in use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Light (or pale). Pink. Orange.
Odour	Mild. Perfume.
Odour threshold	Not available.
pH	pH (concentrated solution): 8.5-9.5
Melting point	Not available.
Initial boiling point and range	88-91°C @ 760 mm Hg
Flash point	42°C Closed cup.
Evaporation rate	< 1 (butyl acetate = 1)
Evaporation factor	Not available.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 6% Upper flammable/explosive limit: 36.5%
Vapour pressure	Not available.

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Vapour density	> 1
Relative density	0.980-0.996 @ 20°C
Solubility(ies)	Soluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Volatility	98%
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	See the other subsections of this section for further details.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	The following materials may react with the product: Strong oxidising agents.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	None at ambient temperatures.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD ₅₀)	Based on available data the classification criteria are not met.
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ATE oral (mg/kg)	2,307.69
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Acute toxicity - dermal

Notes (dermal LD ₅₀)	Based on available data the classification criteria are not met.
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ATE dermal (mg/kg)	2,307.69
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Acute toxicity - inhalation

Notes (inhalation LC ₅₀)	Harmful if inhaled.
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ATE inhalation (gases ppm)	5,384.62
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ATE inhalation (vapours mg/l) 23.08

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 1 - H370 Causes damage to organs .

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

Toxicological information on ingredients.

methanol

Acute toxicity - oral

Notes (oral LD₅₀) International Programme on Chemical Safety (IPCS) (1997) Environmental Health Criteria 196: Methanol. Geneva, World Health Organization. Toxic if swallowed.

ATE oral (mg/kg) 100.0

Acute toxicity - dermal

Notes (dermal LD₅₀) Converted acute toxicity point estimate (cATpE) Toxic in contact with skin.

ATE dermal (mg/kg) 300.0

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Converted acute toxicity point estimate (cATpE) Toxic if inhaled.

ATE inhalation (vapours mg/l) 3.0

Skin corrosion/irritation

Animal data Dose: 2.5cm x 2.5cm, 20 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). Not irritating.

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Serious eye damage/irritation

Serious eye damage/irritation Dose: 0.05 ml, 24 hours, Rabbit Not irritating.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 1 - H370

Target organs Eyes Central nervous system

SECTION 12: Ecological information

12.1. Toxicity

Toxicity Aquatic toxicity is unlikely to occur. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.

methanol

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 15400 mg/l, Lepomis macrochirus (Bluegill)
EC₅₀, 96 hours: 12700 mg/l, Lepomis macrochirus (Bluegill)

Acute toxicity - aquatic invertebrates EC₅₀, 96 hours: 18260 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 96 hours: ~ 22000 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms IC₅₀, 3 hours: >1000 mg/l, Activated sludge

Chronic aquatic toxicity

Chronic toxicity - fish early life stage NOEC, 200 hours: 7900 mg/l, Oryzias latipes (Red killifish)
Weight of evidence.

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

methanol

Phototransformation Air - DT₅₀ : 17.2 days

Biodegradation Water - Degradation (95%): 20 days
Water - Degradation (91%): 15 days
Water - Degradation (88%): 10 days
Water - Degradation (76%): 5 days
The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

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Ecological information on ingredients.

methanol

Bioaccumulative potential BCF: 4.5, Cyprinus carpio (Common carp)

Partition coefficient log Pow: -0.77

12.4. Mobility in soil

Mobility Mobile.

Ecological information on ingredients.

methanol

Mobility Mobile.

Adsorption/desorption coefficient Soil - Koc: 0.13-0.61 @ 6°C

Henry's law constant 0.461 Pa m³/mol @ 25°C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

methanol

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Containers should be thoroughly emptied before disposal because of the risk of an explosion. Dispose of contents/container in accordance with national regulations.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1993

UN No. (IMDG) 1993

UN No. (ICAO) 1993

UN No. (ADN) 1993

14.2. UN proper shipping name

Proper shipping name (ADR/RID) FLAMMABLE LIQUID, N.O.S. (METHANOL)

Proper shipping name (IMDG) FLAMMABLE LIQUID, N.O.S. (METHANOL)

Proper shipping name (ICAO) FLAMMABLE LIQUID, N.O.S. (METHANOL)

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Proper shipping name (ADN) FLAMMABLE LIQUID, N.O.S. (METHANOL)

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-E, S-E
ADR transport category	3
Emergency Action Code	•3YE
Hazard Identification Number (ADR/RID)	33
Tunnel restriction code	(D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations	The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
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EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Classification abbreviations and acronyms	Acute Tox. = Acute toxicity Flam. Liq. = Flammable liquid STOT SE = Specific target organ toxicity-single exposure
Training advice	Only trained personnel should use this material.
Revision comments	Revised regulations.
Revision date	30/08/2016
Revision	3
Supersedes date	29/08/2014
SDS number	659
Hazard statements in full	H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H301 Toxic if swallowed. H311 Toxic in contact with skin. H331 Toxic if inhaled. H332 Harmful if inhaled. H370 Causes damage to organs . H370 Causes damage to organs (Eyes, Central nervous system).

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.