



## SAFETY DATA SHEET

### Perma Flow V2

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 Flow V2

Product number 350013

##### 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 Ardglen 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 Not Classified

Health hazards Eye Irrit. 2 - H319

Environmental hazards Not Classified

##### 2.2. Label elements

###### Hazard pictograms



Signal word Warning

Hazard statements H319 Causes serious eye irritation.

Precautionary statements P264 Wash contaminated skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/ attention.  
P501 Dispose of contents/ container in accordance with national regulations.

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### 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

<b>Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate)</b>	<b>1 - &lt;2.5%</b>
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CAS number: 139-89-9	EC number: 205-381-9
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#### Classification

Skin Irrit. 2 - H315  
Eye Dam. 1 - H318

<b>Sodium hydroxide</b>	<b>0.025 - &lt;0.25%</b>
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CAS number: 1310-73-2	EC number: 215-185-5
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#### Classification

Skin Corr. 1A - H314  
Eye Dam. 1 - H318

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.
<b>Ingestion</b>	Rinse mouth. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Wash skin thoroughly with soap and water.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Rinse with water. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

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

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
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<b>Inhalation</b>	May cause respiratory irritation.
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<b>Ingestion</b>	May cause discomfort if swallowed.
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<b>Skin contact</b>	Prolonged contact may cause dryness of the skin.
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<b>Eye contact</b>	Causes serious eye irritation.
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#### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	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.

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**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** None known.

**Hazardous combustion products** Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

### 5.3. Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapours. Control run-off water by containing and keeping it out of sewers and watercourses.

**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 contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground. The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

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

**Methods for cleaning up** Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Contain and absorb spillage with sand, earth or other non-combustible material. Dispose of contents/container in accordance with national regulations. Do not empty into drains.

### 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 contact with eyes.

**Advice on general occupational hygiene** Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. 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 and cool 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

**Sodium hydroxide**

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Short-term exposure limit (15-minute): WEL 2 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit.

### 8.2. Exposure controls

<b>Appropriate engineering controls</b>	Provide adequate ventilation.
<b>Eye/face protection</b>	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.
<b>Hand protection</b>	Wear protective gloves. 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. To protect hands from chemicals, gloves should comply with European Standard EN374.
<b>Other skin and body protection</b>	Wear appropriate clothing to prevent repeated or prolonged skin contact.
<b>Hygiene measures</b>	Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.
<b>Respiratory protection</b>	No specific recommendations.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Clear liquid.
<b>Colour</b>	Light (or pale). Orange. Pink.
<b>Odour</b>	Mild. Perfume.
<b>Odour threshold</b>	Not available.
<b>pH</b>	pH (concentrated solution): 9.5-10.5
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	100°C @ 760 mm Hg
<b>Flash point</b>	> 93°C Closed cup.
<b>Evaporation rate</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	> 1
<b>Relative density</b>	1.025-1.035 @ 15°C
<b>Solubility(ies)</b>	Soluble in water.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.

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<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

### 9.2. Other information

<b>Volatility</b>	96%
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
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### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid excessive heat for prolonged periods of time.
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### 10.5. Incompatible materials

<b>Materials to avoid</b>	Avoid contact with acids and alkalis. Strong oxidising agents.
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### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	Does not decompose when used and stored as recommended.
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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#### Acute toxicity - dermal

<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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#### Acute toxicity - inhalation

<b>Notes (inhalation LC<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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#### Skin corrosion/irritation

<b>Animal data</b>	Based on available data the classification criteria are not met.
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#### Serious eye damage/irritation

<b>Serious eye damage/irritation</b>	Causes serious eye irritation.
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#### Respiratory sensitisation

<b>Respiratory sensitisation</b>	Based on available data the classification criteria are not met.
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#### Skin sensitisation

<b>Skin sensitisation</b>	Based on available data the classification criteria are not met.
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#### Germ cell mutagenicity

<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
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### 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** Based on available data the classification criteria are not met.

### 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.

**Inhalation** Irritation of nose, throat and airway.

**Ingestion** May cause discomfort if swallowed.

**Skin contact** Prolonged and frequent contact may cause redness and irritation.

**Eye contact** Irritating to eyes.

### Toxicological information on ingredients.

#### Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate)

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

##### Skin corrosion/irritation

**Animal data** Irritating.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye damage.

##### Respiratory sensitisation

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

##### Skin sensitisation

**Skin sensitisation** Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

##### Germ cell mutagenicity

**Genotoxicity - in vitro** Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.

##### Carcinogenicity

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**Carcinogenicity** NOAEL >500 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

### Reproductive toxicity

**Reproductive toxicity - fertility** Multi-generation study - LOAEL >250 mg/kg/day, Oral, Rat F1 REACH dossier information. Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Maternal toxicity: - LOAEL: 1374 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

### Specific target organ toxicity - single exposure

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

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** NOAEL >500 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

### Aspiration hazard

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

## SECTION 12: Ecological information

**Ecotoxicity** No negative effects on the aquatic environment are known. However, large or frequent spills may have hazardous effects on the environment.

### 12.1. Toxicity

**Toxicity** Based on available data the classification criteria are not met.

### Ecological information on ingredients.

#### Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate)

**Toxicity** Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.

### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 372 mg/l, Pimephales promelas (Fat-head Minnow)

**Acute toxicity - aquatic invertebrates** LC<sub>50</sub>, 48 hours: 192 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 48 hours: 3.1 mg/l, Skeletonema costatum

### 12.2. Persistence and degradability

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

### Ecological information on ingredients.

#### Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate)

**Persistence and degradability** The product is biodegradable.

**Phototransformation** Water - DT<sub>50</sub> : 2.18 hours

**Biodegradation** Water - Degradation 30-40%: 14 days

### 12.3. Bioaccumulative potential

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**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not available.

### Ecological information on ingredients.

#### Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate)

**Bioaccumulative potential** BCF: 3.162, Estimated value.

**Partition coefficient** log Pow: -11.36 Estimated value.

### 12.4. Mobility in soil

**Mobility** Mobile.

### Ecological information on ingredients.

#### Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate)

**Mobility** The product is water-soluble and may spread in water systems.

**Adsorption/desorption coefficient** - Koc: 0.000000214 @ °C Estimated value.

### 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.

#### Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate)

**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** Do not empty into drains. Dispose of contents/container in accordance with national regulations.

## SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group



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Not applicable.

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

No.

### 14.6. Special precautions for user

Not applicable.

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

**Transport in bulk according to** Not applicable.

**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

<b>National regulations</b>	EH40/2005 Workplace exposure limits. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
<b>EU legislation</b>	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). 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.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

<b>Classification abbreviations and acronyms</b>	Eye Dam. = Serious eye damage Eye Irrit. = Eye irritation Skin Corr. = Skin corrosion Skin Irrit. = Skin irritation
<b>Training advice</b>	Only trained personnel should use this material.
<b>Revision comments</b>	Revised classification.
<b>Revision date</b>	30/08/2016
<b>Revision</b>	2
<b>Supersedes date</b>	15/08/2014
<b>SDS number</b>	660
<b>Hazard statements in full</b>	H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation.

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.