

### 1. Identification

#### 1.1. Product identifier

**Product Identity** Permafrix  
**Alternate Names** Cavity Embalming Fluid

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

**Intended use** See Technical Data Sheet.  
**Application Method** See Technical Data Sheet.

#### 1.3. Details of the supplier of the safety data sheet

**Company Name** The Dodge Company, Inc  
9 Progress Road  
Billerica, MA 01821

#### Emergency

**CHEMTREC (USA)** (800) 424-9300  
**Customer Service: The Dodge Company, Inc** (800) 443-6343, (978) 600-2099

### 2. Hazard(s) identification

#### 2.1. Classification of the substance or mixture

Flam. Liq. 3;H226	Flammable liquid and vapor.
Acute Tox. 4;H302	Harmful if swallowed.
Acute Tox. 3;H311	Toxic in contact with skin.
Acute Tox. 3;H331	Toxic if inhaled.
Skin Irrit. 2;H315	Causes skin irritation.
Eye Irrit. 2;H319	Causes serious eye irritation.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Muta. 2;H341	Suspected of causing genetic defects.
Carc. 1B;H350	May cause cancer.
STOT SE 2;H371	May cause damage to organs. Specific Target Organs: (Not Available)

#### 2.2. Label elements



**Danger**

H226 Flammable liquid and vapor.  
H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H341 Suspected of causing genetic defects.  
H350 May cause cancer.  
H371 May cause damage to organs.

### **[Prevention]:**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from heat, sparks, open flames, and other ignition sources - No smoking.  
P233 Keep container tightly closed.  
P240 Ground, bond container and receiving equipment.  
P241 Use explosion-proof electrical, ventilating, light, equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P261 Avoid breathing dust, fume, gas, mist, vapors, spray.  
P262 Do not get in eyes, on skin, or on clothing.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves, eye protection, face protection.

### **[Response]:**

P301+312 IF SWALLOWED: Call a POISON CENTER or doctor , physician if you feel unwell.  
P302+352 IF on skin: Wash with plenty of soap and water.  
P303+361+353 IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.  
P304+312 If inhaled: Call a poison center or doctor or physician if you feel unwell.  
P305+351+338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.  
P308+313 IF exposed or concerned: Get medical advice or attention.  
P309+311 IF exposed or you feel unwell Call a POISON CENTER or doctor , physician.  
P321 Specific treatment (see information on this label).  
P330 IF SWALLOWED: Rinse mouth.  
P331 Do NOT induce vomiting.  
P333+313 If skin irritation or a rash occurs: Get medical advice or attention.  
P337+313 If eye irritation persists: Get medical advice or attention.

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

**[Storage]:**

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

**[Disposal]:**

P501 Dispose of contents or container in accordance with local and national regulations.

### 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Formaldehyde CAS Number: 0000050-00-0	10 - 25	Carc. 1B;H350 Muta. 2;H341 Acute Tox. 3;H301 Acute Tox. 3;H311 Acute Tox. 3;H331 Skin Corr. 1B;H314 ≥ 25 % Skin Irrit. 2;H315 5 % ≤ C < 25 % Skin Sens. 1;H317 >0.2 % STOT SE 3;H335 ≥ 5 %	[1][2]
Methanol CAS Number: 0000067-56-1	5 - 10	Flam. Liq. 2;H225 Acute Tox. 3;H331 Acute Tox. 3;H311 Acute Tox. 3;H301 STOT SE 1;H370 (> 10%)	[1][2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

### Section 4. First aid measures

#### 4.1. Description of first aid measures

**General**

In all cases of doubt, or when symptoms persist, seek medical attention.  
Never give anything by mouth to an unconscious person.

**Inhalation**

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

**Eyes**

Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

**Skin**

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

**Ingestion** If the person is conscious, have them drink water. Contact a physician immediately. Do not induce vomiting.

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

**Overview** No specific symptom data available.  
Reproductive or genetic defect hazard. Treat symptomatically. See section 2 for further details.

**Inhalation** Toxic if inhaled. May cause damage to organs.

**Eyes** Causes serious eye irritation.

**Skin** Toxic in contact with skin. May cause an allergic skin reaction. Causes skin irritation.

**Ingestion** Harmful if swallowed.

### Section 5. Fire-fighting measures

#### 5.1. Extinguishing media

Dry chemical, foam, carbon dioxide and water fog.

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

Hazardous decomposition: May form formaldehyde gas, carbon oxides, hydrogen, formic acid and various hydrocarbons. Incomplete combustion may also produce irritating smoke and toxic and/or irritating gases or fumes.

Keep away from heat, sparks, open flames, and other ignition sources - No smoking.

Keep container tightly closed.

Ground, bond container and receiving equipment.

Use explosion-proof electrical, ventilating, light, equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust, fume, gas, mist, vapors, spray.

Do not get in eyes, on skin, or on clothing.

#### 5.3. Advice for fire-fighters

Wear self-contained breathing apparatus to protect from decomposition products.

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### Section 6. Accidental release measures

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

Keep container closed when not in use. Avoid contact with eyes, skin, or clothing.

#### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

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

Vapor is heavier than air and may flow along surface to distant ignition source and flashback.  
Neutralize residual product in the spill area using sodium carbonate or sodium bicarbonate.  
DO NOT USE COMBUSTIBLE MATERIALS.

## Section 7. Handling and storage

### 7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

See section 2 for further details. - [Prevention]:

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

Incompatible materials: Avoid contact with strong oxidizers, strong alkalies, strong mineral acids, phenol and urea.

See section 2 for further details. - [Storage]:

### 7.3. Specific end use(s)

No data available.

## Section 8. Exposure controls and personal protection

### 8.1. Control parameters

#### Exposure

CAS No.	Ingredient	Source	Value
0000050-00-0	Formaldehyde	OSHA	TWA 0.75 ppm STEL 2 ppm
		ACGIH	0.1 ppm TWA 0.3 ppm STEL
		NIOSH	Ca TWA 0.016 ppm C 0.1 ppm [15-minute]
0000067-56-1	Methanol	OSHA	TWA 200 ppm (260 mg/m <sup>3</sup> )
		ACGIH	TWA: 200 ppm STEL: 250 ppm
		NIOSH	TWA 200 ppm (260 mg/m <sup>3</sup> ) ST 250 ppm (325 mg/m <sup>3</sup> ) [skin]

### 8.2. Exposure controls

#### Respiratory

Not necessary where area is properly ventilated.

#### Eyes

Wear safety glasses with side shields to protect the eyes. An eye wash station is suggested as a good workplace practice.

#### Skin

Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact. Wear PVC or rubber gloves to keep skin contact to a minimum. Refer to the manufacturer's recommendations regarding the suitability of any gloves used.

#### Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to

maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

**Other Work Practices** Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

## Section 9. Physical and chemical properties

<b>Appearance</b>	Clear to straw colored Liquid
<b>Odor</b>	Faint pungent
<b>Odor threshold</b>	Not determined
<b>pH</b>	5.8-6.8
<b>Melting point / freezing point</b>	N.A
<b>Initial boiling point and boiling range</b>	88-90C 190-194F
<b>Flash Point</b>	55-57C 131-135F
<b>Evaporation rate (Ether = 1)</b>	< 1 (n-Butyl acetate = 1)
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit:</b> 7% <b>Upper Explosive Limit:</b> 73%
<b>Vapor pressure (Pa)</b>	Not Measured
<b>Vapor Density</b>	Greater than 1
<b>Relative Density</b>	1.045-1.055
<b>Solubility in Water</b>	Not Measured
<b>Partition coefficient n-octanol/water (Log Kow)</b>	Not Measured
<b>Auto-ignition temperature</b>	Not Measured
<b>Decomposition temperature</b>	Not Measured
<b>Viscosity (cSt)</b>	Not Measured
<b>VOC Content</b>	98%

### 9.2. Other information

No other relevant information.

## Section 10. Stability and reactivity

### 10.1. Reactivity

Hazardous Polymerization will not occur.

### 10.2. Chemical stability

Stable under the recommended storage and handling conditions prescribed. At higher temperatures, product may form formic acid and methanol.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

Avoid heat and open flame. Exposure to cold may cause precipitation of the polymer, will redissolve upon gentle heating.

### 10.5. Incompatible materials

Avoid contact with strong oxidizers, strong alkalies, strong mineral acids, phenol and urea.

### 10.6. Hazardous decomposition products

May form formaldehyde gas, carbon oxides, hydrogen, formic acid and various hydrocarbons. Incomplete combustion may also produce irritating smoke and toxic and/or irritating gases or fumes.

## Section 11. Toxicological information

### Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Formaldehyde - (50-00-0)	260.00, Guinea Pig - Category: 3	270.00, Rabbit - Category: 3	---	---	1,000.00, Rat - Category: 3
Methanol - (67-56-1)	2,769.00, Rat - Category: 5	17,100.00, Rabbit - Category: NA	---	---	64,000.00, Rat - Category: NA

### Carcinogen Data

CAS No.	Ingredient	Source	Value
0000050-00-0	Formaldehyde	OSHA	Regulated Carcinogen: Yes
		NTP	Known: Yes; Suspected: Yes
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	A1
0000067-56-1	Methanol	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	3	Toxic in contact with skin.
Acute toxicity (inhalation)	3	Toxic if inhaled.
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.

Germ cell mutagenicity	2	Suspected of causing genetic defects.
Carcinogenicity	1B	May cause cancer.
Reproductive toxicity	---	Not Applicable
STOT-single exposure	2	May cause damage to organs.
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

## Section 12. Ecological information

### 12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

### Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Formaldehyde - (50-00-0)	1.41, Oncorhynchus mykiss	5.80, Daphnia pulex	Not Available
Methanol - (67-56-1)	15,400.00, Lepomis macrochirus	18,260.00, Daphnia magna	22,000.00 (96 hr), Pseudokirchneriella subcapitata

### 12.2. Persistence and degradability

There is no data available on the preparation itself.

### 12.3. Bioaccumulative potential

Not Measured

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This product contains PBT/vPvB chemicals.

### 12.6. Other adverse effects

No data available.

## Section 13. Disposal considerations

### 13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

### Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
<b>14.1. UN number</b>	UN1198	UN1198	UN1198
<b>14.2. UN proper shipping name</b>	UN1198, Formaldehyde solutions, flammable, 3, III	Formaldehyde solutions, flammable	Formaldehyde solutions, flammable
<b>14.3. Transport hazard class(es)</b>	<b>DOT Hazard Class: 3</b>	<b>IMDG: 3</b> <b>Sub Class: Not Applicable</b>	<b>Air Class: 3</b>
<b>14.4. Packing group</b>	III	III	III
<b>14.5. Environmental hazards</b>			
<b>IMDG</b>	Marine Pollutant: No;		
<b>14.6. Special precautions for user</b>	Not Applicable		

### Section 15. Regulatory information

**Regulatory Overview** The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

**Toxic Substance Control Act (TSCA)** All components of this material are either listed or exempt from listing on the TSCA Inventory.

**US EPA Tier II Hazards**

**Fire:** Yes  
**Sudden Release of Pressure:** No  
**Reactive:** No  
**Immediate (Acute):** Yes  
**Delayed (Chronic):** Yes

**EPCRA 302 Extremely Hazardous:**  
Formaldehyde

**EPCRA 313 Toxic Chemicals:**  
Formaldehyde  
Methanol

**Proposition 65 - Carcinogens (>0.0%):**  
Formaldehyde

**Proposition 65 - Developmental Toxins (>0.0%):**  
Methanol

**Proposition 65 - Female Repro Toxins (>0.0%):**  
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Male Repro Toxins (>0.0%):**  
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### Proposition 65 Label Warning:



WARNING!: This product can expose you to chemicals including [Formaldehyde], which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## Section 16. Other information

**SDS Revision Date**      **06/19/2019**

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H370 Causes damage to organs.

H371 May cause damage to organs.

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