



## Safety Data Sheet

Permafrix

SDS Revision Date:

06/01/2016

### 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**

Cavity embalming chemical.

**Application Method**

See Technical Data Sheet.

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

**Company Name**

The Dodge Chemical Company (Canada) Ltd.  
1265 Fewster Drive  
Mississauga ON L4W 1A2

**Emergency: Canutec**

(800) 226-8832

**Customer Service: The Dodge Chemical  
Company (Canada) Ltd.**

(800) 263-0862, (905) 625-0311

### 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 Corr. 1B;H314

Causes severe skin burns and eye damage.

Eye Dam. 1;H318

Causes serious eye damage.

Skin Sens. 1;H317

May cause an allergic skin reaction.

Muta. 2;H341 Carc.

Suspected of causing genetic defects.

1B;H350 STOT SE

May cause cancer.

2;H371

May cause damage to organs. Specific Target Organs: (Not Available)

Aquatic Chronic 2;H411

Toxic to aquatic life with long lasting effects.

## Safety Data Sheet

### Permafix

SDS Revision Date:

06/01/2016

# Dodge

### 2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



**Danger**

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H371 May cause damage to organs.

H411 Toxic to aquatic life with long lasting effects.

#### **[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 / hot surfaces - No smoking. P235 Keep cool.

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. P273 Avoid release to the environment.

# Safety Data Sheet

## Permafix

SDS Revision Date:

06/01/2016



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 / 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 / attention.

P309+311 IF exposed or you feel unwell Call a POISON CENTER or doctor / physician.

P310 Immediately call a POISON CENTER or doctor / physician.

P321 Specific treatment (see information on this label).

P330 Rinse mouth.

P331 Do NOT induce vomiting.

P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing. P363 Wash contaminated clothing before reuse.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction. P391 Collect spillage.

**[Storage]:**

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

P405 Store locked up.

**[Disposal]:**

P501 Dispose of contents / container in accordance with local / 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 Skin Sens. 1;H317 >0.2 %	[1][2]

# Safety Data Sheet

## Permafrix

SDS Revision Date:

06/01/2016

# Dodge

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%) STOT SE 2;H371 (3% ~ 10%)	[1][2][3]
--------------------------------------	--------	---	-----------

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 classified 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.

## 4. First aid measures

### 4.1. Description of first aid measures

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

#### General

#### 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

#### Skin

#### Ingestion

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

### 4.2. Most important

#### symptoms and effects, both acute and delayed

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

#### Overview

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

#### Inhalation

Reproductive or genetic defect hazard. See section 2 for further details.

#### Eyes

Toxic if inhaled. May cause damage to organs.

#### Skin

Causes serious eye damage.

#### Ingestion

Toxic in contact with skin. May cause an allergic skin reaction. Causes severe skin burns and eye damage.

Harmful if swallowed.

## 5. Fire-fighting measures

### 5.1. Extinguishing media

Dry chemical, foam, carbon dioxide and water fog.

# Safety Data Sheet

## Permafrix

SDS Revision Date:

06/01/2016



### 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 / hot surfaces - No smoking.

Keep cool.

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.

**ERG Guide No.** 132

## 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.

## 7. Handling and storage

### 7.1. Precautions for safe handling

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

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

Handle containers carefully to prevent damage and spillage.

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

# Safety Data Sheet

## Permafrix

SDS Revision Date:

06/01/2016



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

### 7.3. Specific end use(s)

No data available.

## 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	STEL: 0.3 ppm Ceiling: 1 ppm S, A2, 1
		NIOSH	Ca TWA 0.016 ppm C 0.1 ppm [15-minute]
		Supplier	No Established Limit
0000067-56-1	Methanol	OSHA	TWA 200 ppm (260 mg/m <sup>3</sup> )
		ACGIH	TWA: 200 ppm STEL: 250 ppm Skin
		NIOSH	TWA 200 ppm (260 mg/m <sup>3</sup> ) ST 250 ppm (325 mg/m <sup>3</sup> ) [skin]
		Supplier	No Established Limit

#### Carcinogen Data

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

### 8.2. Exposure controls

#### Respiratory

Not necessary where area is properly ventilated.

#### Eyes

Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids.

#### 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.

**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.

# Safety Data Sheet

## Permafrix

SDS Revision Date:

06/01/2016

# Dodge

**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. - [Prevention]:

## 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: 7%</b> <b>Upper Explosive Limit: 73%</b>
<b>Vapor pressure (Pa)</b>	Not Measured
<b>Vapor Density</b>	Greater than 1
<b>Specific Gravity</b>	1.045-1.055
<b>Solubility in Water</b>	Complete
<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.

## 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.

# Safety Data Sheet

## Permafix

SDS Revision Date:

06/01/2016



### 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 alkalis, 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.

## 11. Toxicological information

### Acute toxicity

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)	800.00, Rat - Category: 4	270.00, Rabbit - Category: 3	No data available	No data available	No data available
Methanol - (67-56-1)	143.00, Human - Category: 3	No data available	No data available	No data available	64,000.00, Rat - Category: NA

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).

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	1B	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
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

# Safety Data Sheet

## Permafix

SDS Revision Date:

06/01/2016



STOT-single exposure	2	May cause damage to organs.
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

## 12. Ecological information

### 12.1. Toxicity

Toxic to aquatic life with long lasting effects.

### 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	0.788 (96 hr), Ulva pertusa
Methanol - (67-56-1)	100.00, Pimephales promelas	10,000.00, Daphnia magna	16.912 (96 hr), Ulva pertusa

### 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.

## 13. Disposal considerations

### 13.1. Waste treatment methods

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

# Safety Data Sheet

## Permafix

SDS Revision Date:

06/01/2016



### 14. Transport information

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

### 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.

**WHMIS Classification** B3 D1B E

**US EPA Tier II Hazards**

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

**EPCRA 311/312 Chemicals and RQs (lbs):**

Formaldehyde ( 100.00)  
Methanol ( 5,000.00)

**EPCRA 302 Extremely Hazardous:**

Formaldehyde

**EPCRA 313 Toxic Chemicals:**

Formaldehyde  
Methanol

# Safety Data Sheet

## Permafix

SDS Revision Date:

06/01/2016

# Dodge

**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.

**New Jersey RTK Substances (>1%):**

Formaldehyde

Methanol

**Pennsylvania RTK Substances (>1%):**

Formaldehyde

Methanol

## 16. Other information

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.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H370 Causes damage to organs.

H371 May cause damage to organs.

## Safety Data Sheet

### Permafix

SDS Revision Date:

06/01/2016

# Dodge

This Safety data Sheet was prepared using information provided by/obtained from The Dodge Chemical Company (Canada) Ltd. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to the product. The Dodge Chemical Company (Canada) Ltd. expressly disclaim all expressed or implied warranty and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other processes as to the accuracy of and/or sufficiency of such information. This Safety Data Sheet may not be changed or altered in any way without the expressed knowledge and permission of The Dodge Chemical Company (Canada) Ltd.

End of Document