

# Safety Data Sheet

## Introfiant DC

SDS Revision Date:

09/23/2014



### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

<b>Product Identity</b>	Introfiant DC
<b>Alternate Names</b>	Introfiant DC

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

<b>Intended use</b>	Arterial Embalming chemical.
<b>Application Method</b>	See Technical Data Sheet.

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

<b>Company Name</b>	The Dodge Company, Inc 9 Progress Road Billerica, MA 01821
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#### Emergency

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

### 2. Hazard identification of the product

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

Flam. Liq. 3;H226	Flammable liquid and vapor.
Acute Tox. 5;H303	May be harmful if swallowed. (Not adopted by US OSHA)
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	Suspected of causing genetic defects.
Carc. 1B;H350	May cause cancer.
Aquatic Chronic 1;H410	Very toxic to aquatic life with long lasting effects.

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### 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.
- H303 May be 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.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H350 May cause cancer.
- H410 Very 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.
- P241 Use explosion-proof electrical / ventilating / light / equipment.
- 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.
- 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.
- P280 Wear protective gloves / eye protection / face protection.

#### **[Response]:**

- P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.
- 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.

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P305+351+338 IF IN EYES: Rinse continuously 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.

P310 Immediately call a POISON CENTER or doctor / physician.

P311 Call a POISON CENTER or doctor / physician.

P321 Specific treatment (see information on this label).

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	25 - 50	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	[1][2]
Borax (B4Na2O7.10H2O) CAS Number: 0001303-96-4	1.0 - 10	Repr. 1B;H360FD Acute Tox. 4;H332	[1][2]
Propylene Glycol CAS Number: 0000057-55-6	1.0 - 10		[1]
Methanol CAS Number: 0000067-56-1	1.0 - 10	Flam. Liq. 2;H225 Acute Tox. 3;H331 Acute Tox. 3;H311 Acute Tox. 3;H301 STOT SE 1;H370	[1][2]

[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.

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### 4. First aid measures

#### 4.1. Description of first aid measures

##### General

Move victim to fresh air.  
Call 911 or emergency medical service if deemed necessary.  
Give artificial respiration if victim is not breathing.  
Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.  
Administer oxygen if breathing is difficult.  
Remove and isolate contaminated clothing and shoes.  
In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.  
In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.  
Keep victim warm and quiet.  
Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.  
Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

##### Inhalation

Move victim to fresh air. Call emergency medical care. Apply artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.

##### Eyes

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

##### Skin

Remove and isolate contaminated clothing and shoes. In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes. Shower and wash with soap and water. Keep victim warm and quiet.

##### 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

Suspected of damaging fertility or the unborn child. Animal ingestion studies in several species, at high doses, indicate that borates cause reproductive and developmental effects. A human study of occupational exposure to borate dust showed no adverse effect on reproduction.

Contact with eyes, prolonged skin contact may lead to irritation. Mildly toxic by ingestion and may injure mouth, throat, and gastrointestinal tract. Inhalation of dust may irritate nose and throat.

Other Hazards: Dust irritant.

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

##### Inhalation

Toxic if inhaled.

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<b>Eyes</b>	Causes serious eye damage.
<b>Skin</b>	Toxic in contact with skin. May cause an allergic skin reaction. Causes severe skin burns and eye damage.
<b>Ingestion</b>	May be harmful if swallowed. (Not adopted by US OSHA)

### 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 / hot surfaces - No smoking.

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

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 positive pressure self-contained breathing apparatus (SCBA).

Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Flammable/combustible material.

May be ignited by heat, sparks or flames.

Vapors may form explosive mixtures with air.

Vapors may travel to source of ignition and flash back.

Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).

Vapor explosion hazard indoors, outdoors or in sewers.

Runoff to sewer may create fire or explosion hazard.

Containers may explode when heated.

Many liquids are lighter than water.

May cause toxic effects if inhaled or ingested/swallowed.

Contact with substance may cause severe burns to skin and eyes.

Fire will produce irritating, corrosive and/or toxic gases.

Vapors may cause dizziness or suffocation.

Runoff from fire control or dilution water may cause pollution.

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### 6. Accidental release measures

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

Water spray may reduce vapor; but may not prevent ignition in closed spaces.

#### 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

The requirements of the Highly Flammable Liquids and Liquefied Petroleum Gases Regulations apply if the flashpoint is between 21°C and 32°C.

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

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

Handle containers carefully to prevent damage and spillage.

Naked flames and smoking should not be permitted in storage areas. It is recommended that fork lift trucks and electrical equipment are protected to the appropriate standard.

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.

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### 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 ppmS, A2, 1
		NIOSH	Ca TWA 0.016 ppm C 0.1 ppm [15-minute]
		Supplier	No Established Limit
0000057-55-6	Propylene Glycol	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	10 mg/m3 TWA (listed as AIHA WEEL)
0000067-56-1	Methanol	OSHA	TWA 200 ppm (260 mg/m3)
		ACGIH	TWA: 200 ppm STEL: 250 ppm Skin
		NIOSH	TWA 200 ppm (260 mg/m3) ST 250 ppm (325 mg/m3) [skin]
		Supplier	No Established Limit
0001303-96-4	Borax (B4Na2O7.10H2O)	OSHA	No Established Limit
		ACGIH	TWA: 2 mg/m3 STEL: 6 mg/m3
		NIOSH	TWA 5 mg/m3
		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;
0000057-55-6	Propylene Glycol	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;
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;
0001303-96-4	Borax (B4Na2O7.10H2O)	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;

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### 8.2. Exposure controls

<b>Respiratory</b>	Not necessary where area is properly ventilated.
<b>Eyes</b>	Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids.
<b>Skin</b>	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.
<b>Engineering Controls</b>	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.
<b>Other Work Practices</b>	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, deep garnet Liquid
<b>Odor</b>	Pungent
<b>Odor threshold</b>	Not Measured
<b>pH</b>	8 - 9
<b>Melting point / freezing point</b>	Not Measured
<b>Initial boiling point and boiling range</b>	90 - 92C (194 - 198F)
<b>Flash Point</b>	53 - 56C (128 - 132F) TCC
<b>Evaporation rate (Ether = 1)</b>	< 1
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit:</b> 7 (formaldehyde) <b>Upper Explosive Limit:</b> 73 (formaldehyde)
<b>Vapor pressure (Pa)</b>	Not Measured
<b>Vapor Density</b>	> 1
<b>Specific Gravity</b>	1.080 - 1.090
<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 %</b>	96%



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### 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.

### 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.

## 11. Toxicological information

### Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Formaldehyde - (50-00-0)	800.00, Rat - Category: 4	270.00, Rabbit - Category: 3	0.578, Rat - Category: 2	No data available	168.00, Rat - Category: NA
Borax (B4Na2O7.10H2O) - (1303-96-4)	2,660.00, Rat - Category: 5	10,000.00, Rabbit - Category: NA	No data available	2.00, Rat - Category: 4	No data available
Propylene Glycol - (57-55-6)	20,000.00, Rat - Category: NA	20,800.00, Rabbit - Category: NA	105.00, Rat - Category: NA	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

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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)	5	May be harmful if swallowed. (Not adopted by US OSHA)
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
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

## 12. Ecological information

### 12.1. Toxicity

Very 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
Borax (B4Na2O7.10H2O) - (1303-96-4)	74.00, Limanda limanda	484.00, Daphnia magna	24.00 (72 hr), Scenedesmus subspicatus
Propylene Glycol - (57-55-6)	710.00, Pimephales promelas	10,000.00, Daphnia magna	Not Available
Methanol - (67-56-1)	100.00, Pimephales promelas	10,000.00, Daphnia magna	16.912 (96 hr), Ulva pertusa

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### 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 no PBT/vPvB chemicals.

### 12.6. Other adverse effects

No data available.

## 13. Disposal considerations

### 13.1. Waste treatment methods

Do not allow into drains or water courses. Wastes and emptied containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act.

Using information provided in this data sheet advice should be obtained from the Waste Regulation Authority, whether the special waste regulations apply.

## 14. Transport information

	<b>DOT (Domestic Surface Transportation)</b>	<b>IMO / IMDG (Ocean Transportation)</b>	<b>ICAO/IATA</b>
<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:</b> 3 <b>DOT Label:</b> 3, 8	<b>IMDG:</b> 3 <b>Sub Class:</b> 8	<b>Air Class:</b> 3
<b>14.4. Packing group</b>	III	III	III
<b>14.5. Environmental hazards</b>			
<b>IMDG</b>	Marine Pollutant: Yes ( Formaldehyde )		
<b>14.6. Special precautions for user</b>	No further information		
<b>14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not Applicable		

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### 15. Regulatory information

**Regulatory Overview** The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed 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

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

Formaldehyde

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

Methanol

**Proposition 65 - Female Repro Toxins (>0.0%):**

(No Product Ingredients Listed)

**Proposition 65 - Male Repro Toxins (>0.0%):**

(No Product Ingredients Listed)

**N.J. RTK Substances (>1%):**

Formaldehyde

Methanol

Propylene Glycol

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### Penn RTK Substances (>1%):

Borax (B<sub>4</sub>Na<sub>2</sub>O<sub>7</sub>·10H<sub>2</sub>O)  
Formaldehyde  
Methanol  
Propylene Glycol

## 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.

H332 Harmful if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H360FD May damage fertility. Suspected of damaging the unborn child.

H370 Causes damage to organs.

### **This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.**

This Safety data Sheet was prepared using information provided by/obtained from the Dodge Chemical Company Inc. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to the product. The Dodge Chemical Company, Inc. 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, Inc.

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