MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product identifier : CHROMATECH TAN
Product Code(s) : None reported.
Product Use : Arterial embalming chemical.
Chemical Family : Mixture.
Supplier's name and address: The Dodge Chemical Company (Canada) Ltd.
1265 Fewster Drive
Mississauga, Ontario, Canada
L4W 1A2
Information Telephone # : (905) 625-0311
24 Hr. Emergency Tel # : (613) 996-6666 (CANUTEC)

Manufacturer's name and address: Refer to Supplier

SECTION 2 - HAZARDS IDENTIFICATION

Classification : WHMIS classification:
Class B3 (Combustible Liquids);
Class D1A (Materials Causing Immediate and Serious Toxic Effects, Very Toxic Material);
Class D2A (Materials Causing Other Toxic Effects, Very Toxic Material);
Class D2B (Materials Causing Other Toxic Effects, Toxic Material).

OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200). Hazardous classification:
Combustible liquid;
Acute Health Hazard;
Chronic Health Hazard.


Combustible liquid and vapor. POISON! May be fatal if inhaled. May be fatal or cause blindness if swallowed in sufficient quantities. Harmful or fatal if absorbed through the skin. Causes eye burns. May cause digestive tract burns. Causes skin irritation. May cause allergic skin reaction. Contains material which can cause damage to the blood system, the liver and the kidneys. Possible reproductive hazard. Contains material that may cause adverse reproductive effects, based on animal data. Possible birth defect hazard - contains material that may cause birth defects, based on animal data. Possible cancer hazard - contains material which may cause cancer.

POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

Inhalation : May cause severe irritation to the nose, throat and respiratory tract. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Affected person could experience a latent period of no symptoms, followed by blurred vision and possibly blindness. Could result in pulmonary edema (fluid accumulation). Symptoms may be delayed. May result in unconsciousness and possibly death.

Skin : Causes moderate skin irritation. May be absorbed and cause symptoms similar to those for inhalation. Prolonged or repeated contact may cause a hardening or tanning effect.

Eyes : Exposure to high vapour concentrations or contact with liquid causes severe irritation, redness, tearing and pain. Prolonged contact may cause corrosive burns and eye damage. Could result in permanent damage and blindness.

Ingestion : Poison, may be fatal or cause blindness if swallowed. May cause severe irritation and corrosive damage in the mouth, throat and stomach. Severe stomach pains, vomiting, diarrhea, and liver and kidney injury may follow. May be absorbed and cause symptoms similar to those for inhalation.

Effects of long-term (chronic) exposure

Carcinogenic status : Possible cancer hazard. See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects:

See ECOLOGICAL INFORMATION, Section 12.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>Wt.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>10.00 - 30.00</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>1.00 - 5.00</td>
</tr>
<tr>
<td>Borax</td>
<td>1303-96-4</td>
<td>1.00 - 5.00</td>
</tr>
</tbody>
</table>

SECTION 4 - FIRST AID MEASURES

Inhalation: Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. Keep warm and in a quiet place. Seek immediate medical attention/advice.

Skin contact: Remove contaminated clothing. Flush affected skin with gently flowing lukewarm water for at least 20 minutes. Seek immediate medical attention/advice. Wash contaminated clothing before re-use.

Eye contact: Immediately flush eyes with running water for at least 20 minutes. Seek immediate medical attention/advice.

Ingestion: Call a physician or Poison Control Centre immediately. Do NOT induce vomiting. This material is corrosive to the digestive tract. Have victim rinse mouth with water, then give one to two glasses of water to drink. Never give anything by mouth to an unconscious person.

Notes For Physician: Immediate medical attention is required. Contains methanol. Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: Combustible liquid and vapour. This material may be ignited by heat, sparks and direct flame. Vapours are heavier than air and collect in confined and low-lying areas. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.


Oxidizing properties: Not expected to be sensitive to mechanical impact. Vapours in the flammable range may be ignited by a static discharge of sufficient energy.

Explosion data: Sensitivity to mechanical impact / static discharge: Not expected to be sensitive to mechanical impact. Vapours in the flammable range may be ignited by a static discharge of sufficient energy.

Suitable extinguishing media: Dry chemical, foam, carbon dioxide and water fog.

Special fire-fighting procedures/equipment: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. Avoid spreading burning liquid with water spray used for cooling purposes.

Hazardous combustion products: May form formaldehyde gas, carbon oxides, hydrogen, formic acid and various hydrocarbons.

NFPA Rating:

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>0</td>
<td>None</td>
</tr>
</tbody>
</table>

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions: Restrict access to area until completion of clean-up. Keep all other personnel upwind and away from the spill/release. Individuals involved in the cleanup must wear appropriate personal protective equipment. Refer to protective measures listed in sections 7 and 8.

Environmental precautions: Prevent product from entering drains, sewers, waterways and soil. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.
Spill response/cleanup: Remove all sources of ignition. Ventilate area of release. Stop the spill at source if it is safe to do so. Contain and absorb spilled material with inert, non-combustible absorbent material, such as sand. Neutralize spill with a diluted solution (< 5%) of ammonia or sodium sulfite. Refer to Section 13 for disposal of contaminated material. Notify the appropriate authorities as required.

Prohibited materials: Do not use combustible absorbents, such as sawdust.

Special spill response procedures: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).

US CERCLA Reportable quantity (RQ): formaldehyde (100 lbs / 45.4 kg); Methanol (5000 lbs / 2270 kg).

SECTION 7 - HANDLING AND STORAGE

Safe Handling procedures: Wear chemically resistant protective equipment during handling. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks, and open flames. Keep away from bases and incompatibles. Use caution when opening cap. Keep containers tightly closed when not in use. Wash thoroughly after handling.

Storage requirements: Store in a cool, dry, well-ventilated area. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. No smoking in the area. Inspect periodically for damage or leaks. Do not store for long periods of time below 2°C (35°F), or above 43.3°C (110°F).

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

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>0.3 ppm (ceiling)</td>
<td>N/Av</td>
</tr>
<tr>
<td>Methanol</td>
<td>200 ppm (skin)</td>
<td>250 ppm (skin)</td>
</tr>
<tr>
<td>Borax</td>
<td>*2 mg/m³</td>
<td>*6 mg/m³</td>
</tr>
</tbody>
</table>

*Note: The ACGIH TLVs listed above for Borax are for 'Borate compounds, inorganic'. The OSHA PEL listed above for Borax is a final rule / vacated value, and is for 'Borates, tetra, sodium salts'.

Ventilation and engineering measures: Local exhaust ventilation is preferred to prevent contaminant dispersion into work area.

Respiratory protection: Use NIOSH/MSHA approved full-face respirator with an organic vapour cartridge if the recommended exposure limit is exceeded.

Skin protection: Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.

Eye / face protection: Chemical splash goggles are recommended. A full face shield may also be necessary.

Other protective equipment: An eyewash station and safety shower should be made available in the immediate working area. Depending on conditions of use, an impervious apron should be worn.

General hygiene considerations: Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid.

Odour: Slightly perfumed with a somewhat pungent odour.

pH: 8.5 - 9.5

Boiling point: 93 - 96°C (200 - 204°F)

Appearance: tan

Odour threshold: N/Av

Specific gravity: 1.05 - 1.06
Melting/Freezing point : N/Av  Coefficient of water/oil distribution : N/Av
Vapour pressure (mmHg @ 20°C / 68°F) : N/Av  Solubility in water : Complete
Vapour density (Air = 1) : > 1  Evaporation rate (n-Butyl acetate = 1) : < 1
Volatile organic Compounds (VOC’s) : N/Av  Solubility in water : Complete
Flash point : 63 - 65°C (145 - 149°F)  Auto-ignition temperature : N/Av
Flash point Method : TCC  Upper flammable limit (% by vol.) : 73 (formaldehyde)
Lower flammable limit (% by vol.) : 7 (formaldehyde)
Flashback observed : N/Av  Flame Projection Length : N/Av

Section 10: Stability And Reactivity
Stability and reactivity : Stable under the recommended storage and handling conditions prescribed. At higher temperatures, product may form formic acid and methanol.
Hazardous polymerization : Hazardous polymerisation does not occur.
Conditions to avoid : Avoid heat and open flame. Exposure to cold may cause precipitation of the polymer, will redissolve upon gentle heating.

Materials To Avoid And Incompatibility : Avoid contact with strong oxidizers, strong alkalies, strong mineral acids, phenol and urea.
Hazardous decomposition products : Methanol; Formic acid. Refer to Section 5 for additional ‘Hazardous combustion products’.

SECTION 11 - TOXICOLOGICAL INFORMATION
Target organs : Eyes, skin, respiratory system, central nervous system, liver and kidneys.
Routes of exposure : Inhalation: YES  Skin Absorption: YES  Skin & Eyes: YES  Ingestion: YES
Toxicological data : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>LC50(4hr) inh, rat</th>
<th>LD50 Oral, rat (mg/kg)</th>
<th>LD50 Rabbit, dermal (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>287 ppm</td>
<td>42 mg/kg (mouse); 100 mg/kg (rat)</td>
<td>300 mg/kg</td>
</tr>
<tr>
<td>Methanol</td>
<td>64,000 ppm</td>
<td>5628 mg/kg</td>
<td>15,800 mg/kg</td>
</tr>
<tr>
<td>Borax</td>
<td>&gt; 2030 mg/m³</td>
<td>2660 mg/kg</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

Carcinogenic status : Formaldehyde is classified as carcinogenic by IARC (Group 1), ACGIH (Group A2) and NTP (Group 2).
Reproductive effects : This product contains Disodium tetraborate, decahydrate (CAS # 1303-96-4). The data regarding subchronic and chronic oral exposure to boric acid or borax (Disodium tetraborate, decahydrate) in laboratory animals have demonstrated reproductive toxicity. Available animal data indicates that this substance has toxic effects on the male reproductive tract. Testicular lesions have been observed in rats, mice, and dogs administered boric acid or borax in food or drinking-water (INTERNATIONAL PROGRAMME ON CHEMICAL SAFETY Environmental Health Criteria document # 204).
Teratogenicity : Contains methanol, which may cause teratogenic effects at doses which are not maternally toxic. This product contains Disodium tetraborate, decahydrate (CAS # 1303-96-4). Sodium tetraborate has been investigated as a developmental hazard.
Mutagenicity : This product contains Formaldehyde, which may cause mutations to non-reproductive cells (somatic cells), based on animal data.
Epidemiology : Not available.
Sensitization to material : May cause severe skin sensitization with allergic contact dermatitis symptoms such as swelling, rash and eczema. No data available to indicate product or components may be respiratory sensizers.
Synergistic materials : N/Av
Irritancy : Moderate skin irritant. Corrosive to eyes.
CHROMATECH TAN

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other important hazards: May cause blindness if swallowed.

Conditions aggravated by overexposure: Pre-existing skin, respiratory, renal or nervous system disorders.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: There is no data available for this product. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

Mobility: No data is available on the product itself.

Persistence: No data is available on the product itself.

Bioaccumulation potential: No data is available on the product itself.

Other Adverse Environmental effects: No data is available on the product itself.

SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for Disposal: Handle waste according to recommendations in Section 7.

Methods of Disposal: Improper disposal can cause damage to the environment. Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

RCRA: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14: TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN Number</th>
<th>Shipping Name</th>
<th>Class</th>
<th>Packing Group</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG</td>
<td>UN2810</td>
<td>TOXIC LIQUID, ORGANIC, N.O.S. (formaldehyde; Methanol)</td>
<td>6.1</td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>TDG</td>
<td>UN2810</td>
<td>Toxic liquids, organic, n.o.s. (Contains: Formaldehyde; Methanol)</td>
<td>6.1</td>
<td>III</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): formaldehyde (100 lbs / 45.4 kg); Methanol (5000 lbs / 2270 kg).

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: This product contains an Extremely Hazardous Substance under SARA Section 302. Contains: formaldehyde.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Acute Health Hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above their de minimus concentrations. This product contains: formaldehyde; Methanol.

US State Right to Know Laws:

California Proposition 65: This product contains a chemical known to the State of California to cause cancer. Contains: formaldehyde.
Other U.S. State "Right to Know" Lists: The following chemicals are specifically listed by individual States: formaldehyde (CA, MA, MN, NJ, PA, RI); Methanol (CA, MA, MN, NJ, PA, RI); Borax (CA, MA, MN, NJ, PA, RI).

**International Information:**

WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR). Refer to Section 2 for a WHMIS Classification for this product.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

### SECTION 16 - OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Rating</th>
<th>Health: 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Flammability: 0</td>
</tr>
<tr>
<td></td>
<td>Reactivity: 0</td>
</tr>
</tbody>
</table>

**Legend:**

ACGIH: American Conference of Governmental Industrial Hygienists
CA: California
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
DOT: Department of Transportation
EPA: Environmental Protection Agency
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
Inh: Inhalation
LC: Lethal Concentration
LD: Lethal Dose
MA: Massachusetts
MN: Minnesota
MSHA: Mine Safety and Health Administration
N/A: Not Applicable
N/Av: Not Available
NFPA: National Fire Protection Association
NJ: New Jersey
NTP: National Toxicology Program
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TCC: Tagliabue Closed Cup
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

**References:**

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2009.
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2010 (Chempendium, HSDB and RTECs).
4. Material Safety Data Sheet from manufacturer.
5. US EPA Title III List of Lists - October 2006 version.
CHROMATECH TAN

Prepared for:
The Dodge Chemical Company (Canada) Ltd.
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Mississauga, ON, Canada
L4W 1A2
Telephone: (905) 625-0311
Please direct all enquiries to The Dodge Chemical Company (Canada).

Prepared by:
ICC The Compliance Center Inc.
http://www.thecompliancecenter.com

DISCLAIMER OF LIABILITY

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Preparation Date (mm/dd/yyyy):
01/22/2007

Reviewed Date (mm/dd/yyyy):
01/31/2013

Revision No.:
2

Revision Information:
Converted from 9 section format to 16 section format. All sections modified.

END OF DOCUMENT