

MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product identifier : **D-12**

Product Code(s) : None reported.

Product Use : Embalming Adjunct - Deodorant Powder

Chemical Family : Mixture.

Supplier's name and address:

The Dodge Chemical Company (Canada) Ltd.

1265 Fewster Drive
Mississauga, Ontario, Canada
L4W 1A2

Manufacturer's name and address:

Refer to Supplier

Information Telephone # : (905) 625-0311

24 Hr. Emergency Tel # : (613) 996-6666 (CANUTEC)

SECTION 2 - HAZARDS IDENTIFICATION

Classification : WHMIS classification:
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:
Acute Health Hazard;
Chronic Health Hazard.

Emergency Overview : White powder. Chlorine odour.
Warning! May decompose violently above 130°C. May slowly decompose in air, releasing chlorine. Harmful if inhaled or swallowed. Can cause cyanosis. May cause allergic respiratory reaction. May cause allergic skin reaction.

POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

Inhalation : Dusts may cause irritation of the mucous membranes and respiratory tract. Symptoms may include coughing, choking and wheezing. Could result in pulmonary edema (fluid accumulation). Could cause cyanosis (bluish discoloration of the skin due to deficient oxygenation of the blood). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.

Skin : Dust may cause irritation and reddening. Possible severe irritation.

Eyes : Contact with dust can cause irritation, reddening or conjunctivitis. Possible severe irritation.

Ingestion : May cause irritation of mouth, throat, and stomach. May cause abdominal discomfort, nausea or diarrhea. Could cause cyanosis (bluish discoloration of the skin due to deficient oxygenation of the blood).

Effects of long-term (chronic) exposure

: Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin.

Carcinogenic status : See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards : Possible sensitizer. See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects

: See ECOLOGICAL INFORMATION, Section 12.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>Wt.%</u>
Chloramine-T	127-65-1	10.00 - 30.00

SECTION 4 - FIRST AID MEASURES

- Inhalation** : Immediately remove person to fresh air. If irritation persists, seek prompt medical attention.
- Skin contact** : Immediately flush with plenty of water, while removing contaminated clothing. If irritation persists, seek prompt medical attention. Wash contaminated clothing before re-use.
- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
- Ingestion** : Do NOT induce vomiting. Have victim rinse mouth with water, then give one to two glasses of water to drink. Get medical attention. Never give anything by mouth to an unconscious person.
- Notes For Physician** : Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES**Fire hazards/conditions of flammability**

- : Not flammable under normal conditions of use. Potential for dust explosion may exist. May decompose violently above 130°C.

Flammability classification (OSHA 29 CFR 1910.1200)

- : Non-flammable.

Oxidizing properties

- : None known.

Explosion data: Sensitivity to mechanical impact / static discharge

- : Finely divided dust clouds may be sensitive to static discharge and pose a dust explosion hazard. Not expected to be sensitive to mechanical impact.

Suitable extinguishing media : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

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.

Hazardous combustion products

- : Carbon oxides; Chlorine; Hydrogen chloride gas; Sulphur oxides; nitrogen oxides (NOx); Sodium oxides.

NFPA Rating

- | | | | |
|------------------|------------------------|-----------------------|-------------------------------|
| 0 - Minimal | 1 - Slight | 2 - Moderate | 3 - Serious |
| <hr/> | | | |
| <i>Health: 2</i> | <i>Flammability: 1</i> | <i>Instability: 1</i> | <i>Special Hazards: None.</i> |

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** : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.
- Spill response/cleanup** : Remove all sources of ignition. Ventilate area of release. Stop the spill at source if it is safe to do so. Cover spilled solid with inert, absorbent material, such as sand, then place in suitable, covered container for later disposal. Use methods that do not generate dusts. Notify the appropriate authorities as required.
- Prohibited materials** : None known or reported by the manufacturer.
- 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): None reported.

SECTION 7 - HANDLING AND STORAGE

- Safe Handling procedures** : Wear chemically resistant protective equipment during handling. Use only in well-ventilated areas. Avoid breathing dust. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from acids and incompatibles. Use caution when opening cap. Keep container tightly closed when not in use. Wash thoroughly after handling.
- Storage requirements** : Store in a cool, dry, well-ventilated area. Store away from incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.
- Incompatible materials** : Ammonia; Ammonium salts; Oxidizing agents; Acids.

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

<u>Ingredients</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Chloramine-T	N/Av	N/Av	N/Av	N/Av

Ventilation and engineering measures

: Provide appropriate exhaust ventilation at places where dust is formed.

Respiratory protection

: Use in a well-ventilated area. If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised. Advice should be sought from respiratory protection specialists.

Skin protection

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

Eye / face protection

: Chemical goggles must be worn to prevent dusts from entering the eyes.

Other protective equipment

: An eyewash station and safety shower should be made available in the immediate working area. Wear sufficient clothing to prevent skin contact.

General hygiene considerations

: Avoid breathing dust. 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	: powder	Appearance	: white
Odour	: slight chlorine	Odour threshold	: N/Av
pH	: N/Av		
Boiling point	: N/Av	Specific gravity	: 1.12
Melting/Freezing point	: N/Av	Coefficient of water/oil distribution	: N/Av
Vapour pressure (mmHg @ 20° C / 68° F)	: N/Av	Solubility in water	: 99%
Vapour density (Air = 1)	: > 1	Evaporation rate (n-Butyl acetate = 1)	: N/Av
Volatile organic Compounds (VOC's)	: N/Av	Volatiles (% by weight)	: 4%
Flash point	: Not reported		
Flash point Method	: Not reported	Auto-ignition temperature	: N/Av
Lower flammable limit (% by vol.)	: N/Av	Upper flammable limit (% by vol.)	: N/Av
Flame Projection Length	: N/Av	Flashback observed	: N/Av

Section 10: Stability And Reactivity

Stability and reactivity	: Stable under the recommended storage and handling conditions prescribed. May decompose violently above 130°C. May slowly decompose in air, releasing chlorine.
Hazardous polymerization	: Hazardous polymerisation does not occur.
Conditions to avoid	: Avoid excessive heat, sparks and open flame. Keep container tightly closed when not in use.
Materials To Avoid And Incompatibility	: Ammonia; Ammonium salts; Oxidizing agents; Strong acids.
Hazardous decomposition products	: None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

Target organs	: Eyes, skin, respiratory system and digestive system.
Routes of exposure	: <i>Inhalation</i> : YES <i>Skin Absorption</i> : NO <i>Skin & Eyes</i> : YES <i>Ingestion</i> : YES
Toxicological data	: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

Ingredients	LC₅₀(4hr)	LD₅₀	
	inh, rat	(Oral, rat)	(Rabbit, dermal)
Chloramine-T	N/Av	935 mg/kg	N/Av

Carcinogenic status	: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
Reproductive effects	: Not expected to have other reproductive effects.
Teratogenicity	: Not expected to be a teratogen.
Mutagenicity	: Not expected to be mutagenic in humans.
Epidemiology	: Not available.
Sensitization to material	: May cause allergic skin reaction. Symptoms may include redness, itching and swelling. May cause allergic respiratory reaction (sensitization) with asthmatic symptoms such as wheezing and chest tightness.
Synergistic materials	: N/Av
Irritancy	: Severe skin and eye irritant.
other important hazards	: None known or reported by the manufacturer.
Conditions aggravated by overexposure	: Pre-existing skin and respiratory 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

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	None	Not regulated.	Not regulated	none	
TDG Additional information	None.				
49CFR/DOT	None	Not regulated.	Not regulated	none	
49CFR/DOT Additional information	None.				

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): None reported.

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: 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 material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above de minimus concentrations.

US State Right to Know Laws:

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

Other U.S. State "Right to Know" Lists: The following chemicals are specifically listed by individual States: None.

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

HMIS Rating	* - Chronic hazard	0 - Minimal	1 - Slight	2 - Moderate	3 - Serious
Health:	*2		Flammability: 1		Reactivity: 1

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
- MA: Massachusetts
- MN: Minnesota
- N/Ap: Not Applicable
- N/Av: Not Available
- NFPA: National Fire Protection Association
- NJ: New Jersey
- NIOSH: National Institute of Occupational Safety and Health
- NTP: National Toxicology Program
- OSHA: Occupational Safety and Health Administration
- PA: Pennsylvania
- PEL: Permissible exposure limit
- RCRA: Resource Conservation and Recovery Act
- RI: Rhode Island
- SARA: Superfund Amendments and Reauthorization Act
- STEL: Short Term Exposure Limit
- 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.
- 2. International Agency for Research on Cancer Monographs, searched 2010.
- 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2010 (Chempendium, HSDB and RTECs).
- 4. Material Safety Data Sheet from manufacturer.
- 5. US EPA Title III List of Lists - October 2006 version.
- 6. California Proposition 65 List - December 18, 2009 version.

<p><u>Prepared for:</u> The Dodge Chemical Company (Canada) Ltd. 1265 Fewster Drive Mississauga, ON, Canada L4W 1A2 Telephone: (905) 625-0311 Please direct all enquiries to The Dodge Chemical Company (Canada).</p>	
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Revision Information

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

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