



<b>1. PRODUCT AND COMPANY IDENTIFICATION</b>
--

<b>Product Name</b>	DG-F
<b>Product Use</b>	Industrial (not for food or food contact use)
<b>Chemical Name</b>	Diutan Gum
<b>Company</b>	GRT Admixtures 2978 Center Court Eagan, MN 55121
<b>Telephone</b>	(800) 324 8154 (Toll-Free) (8a-5p CST weekdays) (612) 816-6401 <b>24 Hour</b> Contact Number
<b>Emergency Telephone Number</b>	CHEMTREC: 1 800 424 9300 or International +1 703 527 3887
<b>Email</b>	info@grtinc.com
<b>Internet</b>	<a href="http://www.grtinc.com">www.grtinc.com</a>



**4. FIRST AID MEASURES**

<b>General Advice</b>	Remove material from eyes, skin and clothing. In case of doubt or when symptoms persist, seek medical attention. Wash heavily contaminated clothing before reuse.
<b>Eye contact</b>	Hold eyelids apart and flush eyes with a steady, gentle stream of water for several minutes. If eye irritation persists, seek medical attention.
<b>Skin contact</b>	Wash off with soap and plenty of water.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.
<b>Ingestion</b>	No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

**5. FIRE-FIGHTING MEASURES**

<b>General Advice</b>	Treat as "Class A" fire. Product will burn when in contact with a flame. Self extinguishes when ignition source is removed. Tends to smoulder.					
<b>Suitable Extinguishing Media</b>	Water. Dry chemical. Carbon dioxide (CO <sub>2</sub> ).					
<b>Hazardous Combustion Products</b>	carbon dioxide carbon monoxide					
<b>Specific Hazards</b>	Can contain sufficient fines to cause a combustible dust explosion Do not breathe smoke, gases or vapors generated					
<b>Special Protective Equipment for Firefighters</b>	As in any fire, wear self-contained breathing apparatus (SCBA) pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear					
<b><u>NFPA</u></b>	<b>Health</b>	1	<b>Flammability</b>	1	<b>Instability</b>	0
<b><u>HMS</u></b>	<b>Health</b>	1	<b>Flammability</b>	1	<b>Physical Hazard (Reactivity)</b>	0

**6. ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Wet material on walking surfaces will be extremely slippery.  
Avoid dust formation.

**Methods for Cleaning up**

In case of exposure to high levels of airborne dust, wear a personal respirator in compliance with national legislation.  
Use vacuum equipment designed specifically for combustible dust. Take precautionary measures against static discharges. The use of water wash down is not recommended unless the spilled material is already wet. Disposal information - Refer to Section 13.

**Other information**

Reportable quantities - Refer to Section 15.

**7. HANDLING AND STORAGE****Handling**

Avoid dust formation. Provide appropriate exhaust ventilation in places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid conditions that generate airborne dust in handling, transfer and clean up. Product may form combustible dust-air mixtures. Keep away from heat, flame sparks and other ignition sources. Avoid emptying package in or near flammable vapors. Static charges may cause flash fire. Remove material from eyes, skin and clothing.

**Storage**

Avoid storing near incompatible materials (Refer to Section 10).  
Refer to Product Data Sheet for "Storage Conditions/Shelf Life" information.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure Limits**

COMPONENT(S)	OSHA PEL	ACGIH TLV
Diutan Gum	15 mg/m <sup>3</sup> (total dust) 8-hr TWA 5 mg/m <sup>3</sup> (respirable) 8-hr TWA	Not established

Dust: OSHA has not established specific exposure limits for this material. However, OSHA has established limits for particulates not otherwise regulated (PNOR) which are the least stringent exposure limits applicable to dusts.

**Engineering Controls**

Ventilation: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits in this section. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

**Personal Protective Equipment****Respiratory Protection**

Avoid breathing dust. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposures exceeds established guidelines. Consult the respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer.

**Hand Protection**

Gloves are recommended if extended exposure is anticipated.

**Eye Protection**

This product does not cause significant eye irritation or eye toxicity requiring special protection. Where there is significant potential for eye contact, wear chemical goggles and have eye flushing equipment available.

**Skin and Body Protection**

Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>
--

<b>Appearance</b>	white to tan
<b>Physical State</b>	powder
<b>Odor</b>	slight odor
<b>pH</b>	Approximately neutral (as 1% solution)
<b>Flash point</b>	Not applicable
<b>Melting Point/range</b>	Decomposes from approx. 448± 0.5 K without melting (OECD 101) Not highly flammable with a relative self-ignition temperature of 351°C. (93/69/33C Method A10, A16)
<b>Water solubility</b>	Soluble. Forms viscous solutions.

**NOTE:** These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under recommended storage conditions. Hazardous polymerization does not occur.
<b>Conditions to Avoid</b>	Avoid dust formation
<b>Materials to Avoid</b>	Strong oxidizing agents
<b>Hazardous Decomposition Products</b>	Thermal decomposition products: carbon monoxide carbon dioxide (CO <sub>2</sub> )
<b>Possibility of Hazardous Reactions</b>	Hazardous polymerization will not occur.

**11. TOXICOLOGICAL INFORMATION****General**

The dry powder may cause foreign body irritation in some individuals. Prolonged contact with the dry powder may cause drying or chapping of the skin. Excessive inhalation of dust may be annoying and can mechanically impede respiration. Due to the hygroscopic properties, they can form a paste or gel in the airway.

Data from laboratory studies conducted by CP Kelco and/or from the scientific literature on components are summarized below.

**Diutan Gum**

<b>LD50 Oral</b>	>5,000 mg/kg rat
<b>LC50 Inhalation</b>	>5 mg/l 4-hour rat
<b>Chronic Effects</b>	No adverse effects observed in long-term feeding studies with rats (up to 1,000 mg/kg/day) (OECD 407)
<b>Irritation</b>	Non-Irritating Eye (rabbit) Skin sensitization (guinea pig): Non-sensitizer. (OECD 406)
<b>Mutagenicity/Genotoxicity</b>	Chromosomal Abberations (mammalian): Non-clastogenic. (OECD 473) AMES Test- S. Typhimurium, E. Coli: Non-mutagenic. (OECD 471)

<b>12. ECOLOGICAL INFORMATION</b>
-----------------------------------

<b>Ecotoxicity</b>	Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.
<b>Diutan Gum</b>	
<b>96-Hour LC50</b>	Rainbow trout: > 100 ai/l: No Observed Effect Concentration: 100 ai/l (OECD 203)
<b>72-Hour EC50</b>	Scenedesmus subspicatus: >100 ai/l active ingredient. No observed Effect Concentration: 100 ai/l (OECD 201)
<b>48-Hour EC50</b>	Daphnia magna: >100 ai/l active ingredient. No observed Effect Concentration: 100 ai/l (OECD 202)
<b>3-Hour EC50</b>	Sewage sludge: > 1000 mg ai/l. No Observed Effect Concentration: 1000 mg ai/l (OECD 209)
<b>Persistence / Degradability</b>	This material is considered readily biodegradable (OECD 310B): 28-Day - aerobic aqueous medium: 95% degradation 10-Day- aerobic aqueous medium: 60% degradation exceeding
<b>Bioaccumulative Potential</b>	Inherently biodegradable.

<b>13. DISPOSAL CONSIDERATIONS</b>
------------------------------------

<b>Waste Disposal Method</b>	Dispose in accordance with local, state and national regulations. Liquids may be sewerred in accordance with local, state, and national regulations if care is taken to avoid pluggage or blockage of sewer systems recognizing that these materials are intended to increase viscosity and form gels. Dry or wet solid material can be landfilled in accordance with local, state, and national regulations. As a carbohydrate, this material is readily biodegradable, when at low concentrations, in a biological wastewater treatment plant.
------------------------------	--

<b>14. TRANSPORT INFORMATION</b>
----------------------------------

**General Information** The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

<b>D.O.T. Hazard Classification</b>	Non-hazardous material
<b>TDG</b>	Not hazardous
<b>IMO / IMDG</b>	Not hazardous
<b>ICAO / IATA</b>	Not hazardous
<b>RID/ADR</b>	Not hazardous

**15. REGULATORY INFORMATION****International Inventories****Component(s) of the product are on the following Inventory lists:**

- TSCA [non-5(e)SNUR]
- Australia. Certificate issued 20 September 2006. CAS: 595585-15-2
- Canada (DSL)
- CEFAS under the HOCNF scheme (OCNS Group E: the most favourable category)
- DTI/CEFAS -drilling products
- ELINCS 439-070-6
- Korea: Korean Gazette Nr: 2003-3-2474 (D-Glucuronic acid polymer with 6-deoxy-L-mannose and D-glucose, acetate, calcium magnesium potassium sodium salt; CAS 125005-87-0)
- China: SEPA: Diutan Polymer exemption E-072019 (125005-87-0), 26 December 2007

**Regulatory Restrictions**

For information on approved use of this product, or products in which this product is an ingredient, in other countries/regions not specified herein, please contact GRT Admixtures.

**Harmonized Tariff Code**                    3913.90

**USA****Federal Regulations****SARA Sections 302/304 313; CERCLA RQ:**

Note: If no components are listed below, this product is not subject to these referenced SARA and CERCLA regulations.

**State Regulations****California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)**

This product is not known to contain a chemical at a level that is expected to pose significant risk under anticipated use conditions.

**Canada****WHMIS**

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

**WHMIS Hazard Class**

Not a controlled product

<b>16. OTHER INFORMATION</b>
------------------------------

**Prepared By**

GRT Admixtures  
email: [info@grtinc.com](mailto:info@grtinc.com)  
tel: 800-324-8154  
fax: 651-454-4252  
Darrell Stahlecker

**Disclaimer**

The information contained in this Safety Data Sheet to the best of GRT's knowledge and believe as of the date indicated is believed to be accurate and reliable. However, no representation, warranty or guarantee is implied or expressed regarding the accuracy, reliability or completeness of this information or the use of the product. Nothing contained herein should be construed as a recommendation to use this product in conflict with National or local regulations or existing patents covering any material or its use. In case of dispute, the English text governs.

**END OF SAFETY DATA SHEET**