



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material name** Modified Distillers Dried Grains with Solubles  
**Revision date** 02-15-2012  
**Version #** 01  
**CAS #** Mixture  
**Synonym(s)** MDDG, MDDGS  
**Manufacturer/Supplier** Valero Marketing & Supply Company and Affiliates  
P.O. Box 696000  
San Antonio, TX 78269-6000  
**General Assistance** 210-345-4593  
**Emergency** 24 Hour Emergency 866-565-5220  
1-800-424-9300 (CHEMTREC USA)

## 2. Hazards Identification

**Physical state** Liquid.  
**Appearance** Moist tan dough  
**Emergency overview** WARNING!  
  
May cause eye and skin irritation. Prolonged and repeated skin contact may cause allergic skin reactions.  
**OSHA regulatory status** This product is hazardous according to OSHA 29 CFR 1910.1200.  
**Potential health effects**  
**Routes of exposure** Eyes. Skin. Ingestion.  
**Eyes** Direct contact with eyes may cause temporary irritation.  
**Skin** May cause skin irritation. Prolonged and repeated skin contact may cause allergic skin reactions.  
**Inhalation** Under normal conditions of intended use, this material is not expected to be an inhalation hazard.  
**Ingestion** No known harmful effects.  
**Potential environmental effects** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
Dried Distillers Grains with Solubles	N/A	~ 40
Syrup	N/A	~ 60

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First Aid Measures

### First aid procedures

**Eye contact** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention promptly if symptoms occur after washing.  
**Skin contact** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If skin irritation or an allergic skin reaction develops, get medical attention. Wash contaminated clothing before reuse.  
**Inhalation** If symptomatic, move to fresh air. Get medical attention if symptoms persist.  
**Ingestion** Seek medical attention if discomfort persists.

## 5. Fire Fighting Measures

**Flammable properties** No unusual fire or explosion hazards noted.

**Extinguishing media****Suitable extinguishing media**Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).**Fire fighting equipment/instructions**

Use protective equipment appropriate for surrounding materials.

**Hazardous combustion products**

None known.

**6. Accidental Release Measures****Personal precautions**

Wear appropriate personal protective equipment (See Section 8).

**Methods for cleaning up**

Sweep up and place into a proper container for disposal. Flush area with water. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

**7. Handling and Storage****Handling**

Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Observe good industrial hygiene practices.

**Storage**

Keep container closed. Protect from light. Store in a cool place.

**8. Exposure Controls / Personal Protection****Occupational exposure limits****US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Dried Distillers Grains with Solubles (-)	TWA	3 mg/m <sup>3</sup>	Respirable particles.
		10 mg/m <sup>3</sup>	Inhalable particles.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Dried Distillers Grains with Solubles (-)	PEL	5 mg/m <sup>3</sup>	Respirable fraction.
		15 mg/m <sup>3</sup>	Total dust.

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value	Form
Dried Distillers Grains with Solubles (-)	TWA	5 mg/m <sup>3</sup>	Respirable fraction.
		15 mg/m <sup>3</sup>	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

Components	Type	Value	Form
Dried Distillers Grains with Solubles (-)	TWA	3 mg/m <sup>3</sup>	Respirable particles.
		10 mg/m <sup>3</sup>	Total particulate.

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value	Form
Dried Distillers Grains with Solubles (-)	TWA	3 mg/m <sup>3</sup>	Respirable fraction.
		10 mg/m <sup>3</sup>	Total dust.

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value	Form
Dried Distillers Grains with Solubles (-)	TWA	3 mg/m <sup>3</sup>	Respirable particles.
		10 mg/m <sup>3</sup>	Inhalable

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value	Form
Dried Distillers Grains with Solubles (-)	TWA	10 mg/m <sup>3</sup>	Total dust.

**Engineering controls**

Ensure adequate ventilation, especially in confined areas.

## Personal protective equipment

<b>Eye / face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Respirator type: Use NIOSH approved respirator with organic vapor/acid gas protection.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical & Chemical Properties

<b>Appearance</b>	Moist tan dough
<b>Color</b>	Tan.
<b>Odor</b>	Slightly sweet/toasted smell
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Liquid.
<b>Form</b>	Paste.
<b>pH</b>	Not available.
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Specific gravity</b>	Not available.
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Avoid contact with strong oxidizing agents.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

<b>Acute effects</b>	May cause skin and eye irritation.
<b>Sensitization</b>	No sensitizing effects known.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

## 12. Ecological Information

<b>Ecotoxicity</b>	No data available.
<b>Persistence and degradability</b>	The product is expected to be biodegradable.
<b>Bioaccumulation / Accumulation</b>	The product is not expected to bioaccumulate.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Mobility in environmental media</b>	No data available.

## 13. Disposal Considerations

<b>Disposal instructions</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport Information

<b>DOT</b>
Not regulated as dangerous goods.
<b>IATA</b>
Not regulated as dangerous goods.
<b>IMDG</b>
Not regulated as dangerous goods.
<b>TDG</b>
Not regulated as dangerous goods.

## 15. Regulatory Information

<b>US federal regulations</b>	This product is hazardous according to OSHA 29 CFR 1910.1200.
<b>CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)</b>	None
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>	
<b>Hazard categories</b>	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
<b>Section 302 extremely hazardous substance (40 CFR 355, Appendix A)</b>	No
<b>Section 311/312 (40 CFR 370)</b>	Yes
<b>Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)</b>	Not controlled
<b>WHMIS status</b>	Non-controlled

## 16. Other Information

<b>Further information</b>	HMIS® is a registered trade and service mark of the NPCA.
<b>HMIS® ratings</b>	Health: 1 Flammability: 0 Physical hazard: 0
<b>NFPA ratings</b>	Health: 1 Flammability: 0 Instability: 0

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**Disclaimer**

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**Issue date**

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