



# SAFETY DATA SHEET

## 1. Identification

|   |  |
|---|--|
| <b>Product identifier</b>                                     | <b>Modified Distillers Dried Grains with Solubles</b>  |
| <b>Other means of identification</b>                          | Not available.   |
| <b>Synonyms</b>   | MDDG, MDDGS  |
| <b>Recommended use</b>  | Not available.   |
| <b>Recommended restrictions</b>                               | None known.  |
| <b>Manufacturer/Importer/Supplier/Distributor information</b> |  |
| <b>Manufacturer/Supplier</b>                                  | Valero Marketing & Supply Company and Affiliates<br>One Valero Way<br>San Antonio, TX 78269-6000<br>210-345-4593<br>CorpHSE@valero.com |
| <b>General Assistance</b>                                     | 210-345-4593   |
| <b>E-Mail</b>   | CorpHSE@valero.com   |
| <b>Contact Person</b>   | Industrial Hygienist   |
| <b>Emergency Telephone</b>                                    | 24 Hour Emergency 866-565-5220<br>1-800-424-9300 (CHEMTREC USA)  |

## 2. Hazard(s) identification

|  |  |
|--|--|
| <b>Physical hazards</b>                          | Not classified.  |
| <b>Health hazards</b>                            | Not classified.  |
| <b>OSHA defined hazards</b>                      | Not classified.  |
| <b>Label elements</b>                            |  |
| <b>Hazard symbol</b>                             | None.  |
| <b>Signal word</b>                               | Not available.   |
| <b>Hazard statement</b>                          | Not available.   |
| <b>Precautionary statement</b>                   |  |
| <b>Prevention</b>                                | Observe good industrial hygiene practices.                                     |
| <b>Response</b>                                  | Wash hands after handling.   |
| <b>Storage</b>                                   | Keep container tightly closed.   |
| <b>Disposal</b>                                  | Dispose of waste and residues in accordance with local authority requirements. |
| <b>Hazard(s) not otherwise classified (HNOC)</b> | None known.  |

## 3. Composition/information on ingredients

### Mixtures

|                             |  |
|-----------------------------|--|
| <b>Composition comments</b> | All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. |
|-----------------------------|--|

## 4. First-aid measures

|   |  |
|---|--|
| <b>Inhalation</b>   | If symptomatic, move to fresh air. Get medical attention if symptoms persist.  |
| <b>Skin contact</b>                                       | 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. |
| <b>Eye contact</b>  | 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.  |
| <b>Ingestion</b>  | Seek medical attention if discomfort persists.   |
| <b>Most important symptoms/effects, acute and delayed</b> | Irritant effects.  |

## 5. Fire-fighting measures

|  |   |
|--|---|
| <b>Suitable extinguishing media</b>                                  | Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ). |
| <b>Unsuitable extinguishing media</b>                                | None known.   |
| <b>Specific hazards arising from the chemical</b>                    | None known.   |
| <b>Special protective equipment and precautions for firefighters</b> | Use protective equipment appropriate for surrounding materials.                       |

## 6. Accidental release measures

|  |  |
|--|--|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Wear appropriate personal protective equipment (See Section 8).  |
| <b>Methods and materials for containment and cleaning up</b>               | Flush area with water. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal. |

## 7. Handling and storage

|   |   |
|---|---|
| <b>Precautions for safe handling</b>                                | Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Observe good industrial hygiene practices. |
| <b>Conditions for safe storage, including any incompatibilities</b> | Keep container closed. Protect from light. Store in a cool place.   |

## 8. Exposure controls/personal protection

### Occupational exposure limits

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

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

#### US. ACGIH Threshold Limit Values

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

|   |  |
|---|--|
| <b>Biological limit values</b>          | No biological exposure limits noted for the ingredient(s). |
| <b>Exposure guidelines</b>              | No exposure standards allocated.                           |
| <b>Appropriate engineering controls</b> | Ensure adequate ventilation, especially in confined areas. |

### Individual protection measures, such as personal protective equipment

|                            |  |
|----------------------------|--|
| <b>Eye/face protection</b> | Wear safety glasses with side shields (or goggles).            |
| <b>Skin protection</b>     |  |
| <b>Hand protection</b>     | Wear chemical-resistant, impervious gloves.                    |
| <b>Other</b>               | Wear protective clothing appropriate for the risk of exposure. |

**Respiratory protection** 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.

**Thermal hazards** Not applicable.

**General hygiene considerations** 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 and chemical properties

**Appearance** Moist tan dough

**Physical state** Liquid.

**Form** Paste.

**Color** Tan.

**Odor** Slightly sweet/toasted smell

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not available.

**Flash point** Not available.

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not available.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** Not available.

**Vapor density** Not available.

**Relative density** Not available.

**Solubility(ies)**

**Solubility (water)** Not available.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Other information** Moisture (% by Wt.): ~ 60%

**Weighted solids** ~50%

## 10. Stability and reactivity

**Reactivity** Not available.

**Chemical stability** Material is stable under normal conditions.

**Possibility of hazardous reactions** Hazardous polymerization does not occur.

**Conditions to avoid** Avoid contact with strong oxidizing agents.

**Incompatible materials** Strong oxidizing agents.

**Hazardous decomposition products** No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

|                     |  |
|---------------------|--|
| <b>Ingestion</b>    | No harmful effects expected in amounts likely to be ingested by accident.                          |
| <b>Inhalation</b>   | Under normal conditions of intended use, this material is not expected to be an inhalation hazard. |
| <b>Skin contact</b> | Prolonged or repeated contact may dry skin and cause irritation.                                   |
| <b>Eye contact</b>  | Direct contact with eyes may cause temporary irritation.   |

**Symptoms related to the physical, chemical and toxicological characteristics** Irritant effects.

### Information on toxicological effects

**Acute toxicity** Based on available data, the classification criteria are not met.

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

### Respiratory or skin sensitization

**Respiratory sensitization** Based on available data, the classification criteria are not met.

**Skin sensitization** Prolonged and repeated exposure may increase the risk of more serious skin disorders such as dermatitis and allergy.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

**Specific target organ toxicity - single exposure** Based on available data, the classification criteria are not met.

**Specific target organ toxicity - repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

## 12. Ecological information

**Ecotoxicity** Not expected to be harmful to aquatic organisms.

**Persistence and degradability** The product is expected to be biodegradable.

**Bioaccumulative potential** The product is not expected to bioaccumulate.

**Mobility in soil** Not available.

**Other adverse effects** Not available.

## 13. Disposal considerations

**Disposal instructions** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazardous waste code** Not regulated.

**Waste from residues / unused products** Dispose of in accordance with local regulations.

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

**US federal regulations** This product is not hazardous according to OSHA 29CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.

## 16. Other information, including date of preparation or last revision

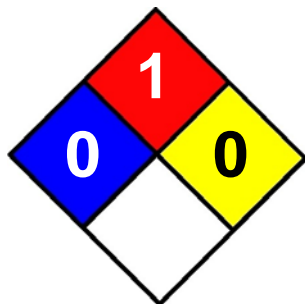
**Issue date** 28-May-2014

**Revision date** -

**Version #** 01

**Further information** HMIS® is a registered trade and service mark of the NPCA.

**NFPA Ratings**



**References**

EPA: AQUIRE database  
US. IARC Monographs on Occupational Exposures to Chemical Agents  
HSDB® - Hazardous Substances Data Bank  
National Toxicology Program (NTP) Report on Carcinogens  
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

**Disclaimer**

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