



<b>MATERIALS SAFETY DATA SHEET</b> <b>(MSDS)</b> <i>Protimaize Dried Distillers Grain Solubles (DDGS)</i>	MSDS Number	NCP/P/2
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#### 4. First – aid Measures:

<b>Product in eye</b>	: Flush eye with running water for at least 20 minutes. Seek medical attention if eye irritation persists.
<b>Product on skin</b>	: Wash with soap and water. Seek medical attention if there is evidence of skin irritation.
<b>Product ingested</b>	: Non-toxic by ingestion.
<b>Product inhaled</b>	: If material is inhaled and if the person experiences breathing difficulty, take person to a well-ventilated area and keep at rest in a position comfortable for breathing. Seek medical attention if symptoms persist.

#### 5. Fire-fighting Measures:

<b>Extinguishing media</b>	: The product is known only to smoulder. Where necessary CO <sub>2</sub> or dry extinguisher mediums may be used, or the smouldering material can be removed to a well-ventilated area until smouldering stops. <u>Note</u> : water will damage the material.
<b>Special hazards</b>	: Not Applicable
<b>Protective clothing</b>	: As in any fire, wear a self-contained breathing apparatus and full protective gear.

#### 6. Accidental Release Measures:

<b>Personal precautions</b>	: Not Applicable
<b>Environmental precautions</b>	: Keep product away from natural water bodies, sewers, and storm water drains. Although the product is not hazardous, it may cause blockages in drains.
<b>Spills</b>	: - Sweep up spilled material but avoid creating airborne dust, especially in confined spaces. - Use clean, non-sparking tools to collect spilled material. - Small spills will dilute naturally with water and biodegrade.

#### 7. Handling and Storage:

<b>Suitable material</b>	: Can be stored in plastic or metal containers for the recommended shelf-life.
<b>Handling and storage</b>	: Do not use in areas without adequate ventilation. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that does not accumulate on surfaces. Store in a cool, dry, well-ventilated area.  Avoid strong acids, strong bases, and oxidizing agents.

#### 8. Exposure Control / Personal Protection:

<b>Occupational exposure limits</b>	: Not available
<b>Engineering control measures</b>	: Ensure adequate ventilation especially in confined areas.
<b>Personal protection– respiratory</b>	: Good general ventilation should be sufficient to control worker's exposure to dust generated from the material. Respiratory protection is not necessary for normal handling and with adequate room ventilation. A dust mask or respirator is recommended if ventilation is inadequate and/or handling creates visible dust clouds.

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<b>Personal protection</b>	
– hand	: Wear appropriate gloves for the task
<b>Personal protection</b>	
– eye	: Wear safety goggles/safety glasses with side shields. Eyewash station should be made available.
<b>Personal protection</b>	
– skin	: Standard protective clothing is recommended.
<b>Hygiene</b>	: Always observe good personal hygiene measures such as washing hands often and routinely cleaning protective equipment.

### 9. Physical and Chemical Properties:

<b>Appearance</b>	: Yellow to light brown granular material
<b>Odour</b>	: Characteristic of grain
<b>pH</b>	: Not Available
<b>Boiling point</b>	: Not Available
<b>Melting point</b>	: Not Available
<b>Flash point</b>	: Not Available
<b>Flammability</b>	: Not Available
<b>Autoflammability</b>	: Not Available
<b>Explosive properties</b>	: Not Available
<b>Oxidizing properties</b>	: Not Available
<b>Vapour pressure</b>	: Not Available
<b>Density</b>	: 0.4 – 0.5 g/cm <sup>3</sup>
<b>Solubility - water</b>	: Not Available
<b>Solubility – solvent</b>	: Not Available
<b>Solubility – coefficient</b>	: Not Available

### 10. Stability and Reactivity:

<b>Condition to avoid</b>	: Heat, sparks, flames, high temperatures. Minimize or avoid dust generation and accumulation.
<b>Incompatible materials</b>	: Strong oxidizing agents, strong acids, and strong bases.
<b>Hazardous decomposition products</b>	: No hazardous decomposition products are known.
<b>Stability</b>	: Material is stable under normal conditions but is susceptible to degradation by micro-organisms over time (past shelf life)

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### 11. Toxicological Information:

<b>Acute toxicity</b>	: Dust may irritate the respiratory tract, skin, and eyes.
<b>Skin and eye contact</b>	: Refer to Acute Toxicity above.
<b>Chronic toxicity</b>	: Prolonged exposure to dust that may be generated from handling the material may cause wheezing, chest tightness, productive cough, nasal irritation, or symptoms of chronic respiratory disease.
<b>Carcinogenicity</b>	: This product is not considered to be a carcinogen by ACGIH.
<b>Mutagenicity</b>	: Not Applicable.
<b>Neurotoxicity</b>	: Not Applicable.
<b>Reproductive hazards</b>	: Not Applicable.

### 12. Ecological Information:

<b>Aquatic toxicity – fish</b>	: Not Available.
<b>Aquatic toxicity – daphnia</b>	: Not Available.
<b>Aquatic toxicity – algae</b>	: Not Available.
<b>Biodegradability</b>	: This product is expected to be biodegradable.
<b>Bio – accumulation</b>	: Not Available. However due to the high contents of organic material in the product it is expected to consume a significant amount of oxygen once it gets into a natural water body and may result in death of certain aquatic species.
<b>Mobility</b>	: Not Applicable.
<b>German wgk</b>	: Not Applicable.

### 13. Disposal Considerations:

<b>Disposal methods</b>	: Under conditions approved by local authorities.
<b>Disposal of packaging</b>	: Not Applicable.

### 14. Transport Information:

<b>UN No</b>	: Not Applicable.
<b>Substance Identity No</b>	: Not Applicable.
<b>ADR/RID class</b>	: Not Applicable.
<b>ADR/RID item No</b>	: Not Applicable.
<b>ADR/RID hazard identity No</b>	: Not Applicable.

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IMDG – shipping name	: Not Applicable.
IMDG – class	: Not Applicable.
IMDG – packaging group	: Not Applicable.
IMDG – marine pollutant	: Not Applicable.
IMDG – EMS No	: Not Applicable.
IMDG – MFAG table No	: Not Applicable.
IATA – shipping name	: Not Applicable.
IATA – class	: Not Applicable.
IATA – subsidiary risk(s)	: Not Applicable.
ADNR – class	: Not Applicable.
UK – description	: Not Applicable.
UK- emergency action class	: Not Applicable.

### 15. Regulatory Information:

EEC hazard classification	: Not Applicable.
Risk phases	: R44. <span style="float: right;">Safety phases: S22, S25.</span>
National legislation	: Not Applicable.

### 16. Sources of Information

AlcoNCP's QA/QC Laboratory
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### 17. Other Information

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their purposes. In no event shall AlcoNCP be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages, howsoever arising, even if AlcoNCP has been advised of the possibility of such damages.*

### 18. Change Details

None
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<b>19. References</b>
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Alco Energy Rotterdam- Feed Safety Data Sheet Version 2.0.
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