

DAR PRO 50

TYPICAL ANALYSIS

Crude Protein	50.00%
Crude Fat	11.00%
Crude Fiber	2.50%
Ash	26.00%
Moisture	4.00%
Grind	99% thru #10
Color	Brown
Metabolizable Energy	1,223 Kcal/lb=2,690 Kcal/kg

MINERALS AND VITAMINS

Calcium	8.00%
Phosphorous	4.00%
Available Phosphorous	4.00%
Salt Equivalent	2.50%
Sodium	1.00%
Chloride	1.50%
Potassium	0.80%
Choline	1,980 mg/kg
Magnesium	1.00%

AMINO ACID PROFILE

Aspartic Acid	4.16%
Threonine	1.69%
Serine	2.02%
Glutamic Acid	6.85%
Proline	3.98%
Glycine	7.09%
Alanine	4.23%
Cystine	0.56%
Methionine	0.71%
Valine	2.22%
Isoleucine	1.26%
Leucine	3.37%
Tyrosine	1.08%
Phenylalanine	1.72%
Histidine	1.17%
Lysine	2.52%
TSAA	1.27%
Ammonia	0.60%
Arginine	3.62%
Tryptophan	0.33%
Taurine	0.10%
Hydroxyproline	2.62%

Analysis are updated periodically and may vary slightly from previous versions.

Approved plant of:

- Animal Protein Producers Institute (APPI) Code of Practice Voluntary Salmonella Reduction Program
- Food & Drug Administration (FDA) Registered

darpro-ingredients.com

Transforming sustainable resources into
functional and nutritional solutions

DAR PRO
INGREDIENTS

DARLING
INGREDIENTS INC.

MATERIAL SAFETY DATA SHEET: DAR PRO 50

Preparer's Name: Darling Ingredients Inc. / Griffin Industries LLC

Date Prepared: July 10, 2012

Synonyms:

CAS#: N/A

Section I: General Information				
Manufacturer's Name:	Darling Ingredients Inc.	Griffin Industries LLC	Phone Numbers:	
Address:	251 O'Connor Ridge Blvd. Suite 300 Irving, TX 75038	4221 Alexandria Pike Cold Spring, KY 41076	General Information & Emergency Contact:	(515) 289-3718 (859) 472-7363
Substance:	Dehydrated Beef and Pork By-products			
Chemical Family:	Protein Supplement with associated fatty and mineral components			
Molecular Formula:	N/A			
Molecular Weight:	N/A			
CAS Number:	N/A			

Section II: Hazardous Ingredients	
Hazardous Liquids, Solids, or Gases:	This product contains no Hazardous Components as described in the Hazard Communication Standard. This product has trade names of Meat Meal, Meat By-Product Meal, Meat & Bone Meal. This product has components of dehydrated beef and pork protein and bone at 100 percent dehydrated blood protein.
Other Contaminants:	None
Exposure Limits:	N/A

Section III: Physical Data	
Boiling Point:	Decomposes
Vapor Pressure:	N/A
Vapor Density:	N/A
Solubility in Water:	Insoluble
Appearance and Odor:	Light tan to medium brown solid, characteristic odor
Specific Gravity (H ₂ O = 1):	0.50 average
Melting Point:	Decomposes
Percent Volatile by Volume:	Not determined
Evaporation Rate:	0
Butyl Acetate:	1

Section IV: Fire and Explosion Hazard Data	
Flash Point:	460 F, Open Cup (fat content only)
Flammable Limits:	N/A
LEL:	N/A
UEL:	N/A
Extinguishing Media:	Type A or B
Special Fire Fighting Procedures:	None
Unusual Fire and Explosion Hazards:	Dust accumulation in enclosed space may present explosion hazard

Section V: Health Hazard Data	
Emergency and First Aid Procedures:	Wash Well Ingestion: N/A Inhalation: N/A Eye Contact: N/A Skin Contact: N/A
OSHA Regulated	No

Section VI: Reactivity Data	
Unstable or Stable:	Stable
Incompatibility (Materials to Avoid):	None
Hazardous Decomposition Products:	None
Hazardous Polymerization:	Will not occur
Conditions to avoid:	None

Section VII: Spill or Leak Procedures	
Steps to be taken in case material is released or spilled:	Sweep up spilled meal and dispose of in Sanitary Landfill, or contact DAR PRO Solutions concerning reprocessing.
Waste disposal method:	Send to Sanitary Landfill or contact DAR PRO Solutions as above. Dispose in accordance with all local, state and federal regulations.
Precautions to be taken in handling and storing:	Beef meat must be labeled with the caution statement: Do Not Feed to Cattle or Other Ruminants.
Other precautions:	None

Section VIII: Special Protection Information	
Respiratory Protection:	Dust mask in enclosed space
Ventilation:	Ventilate confined spaces before entering
Protective Gloves:	Recommended
Eye Protection:	Recommended
Other Protective Equipment:	N/A
Work/Hygienic Practices:	After handling wash hands with soap and warm water.

The information provided is believed to be accurate and represents the best information currently available. However we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.