



Safety Data Sheet

Material Name: Start Strong™ for Fresh Cows

SDS ID: 2501

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Start Strong™ for Fresh Cows, Product Code: 2501

Product Use

Nutritional Supplement for Fresh Cows.

Restrictions on Use

Use Only as Directed on Label.

Details of the supplier of the safety data sheet

Ralco Nutrition, Inc.

1600 Hahn Road

PO Box 1083

Marshall, MN 56258

Phone: 1-800-533-5306

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Acute Toxicity - Dermal - Category 3

Acute Toxicity - Inhalation - Dust/Mist - Category 4

Serious Eye Damage/Eye Irritation - Category 2A

Skin Sensitization - Category 1A

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Toxic in contact with skin.

Harmful if inhaled.

Causes serious eye irritation.

May cause allergic skin reaction.



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Precautionary Statement(s)

Prevention

Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves.

Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Take off immediately all contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.
Call a POISON CENTER or doctor if you feel unwell.
Specific treatment (see label).

Storage

Store locked up.

Disposal

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

Statement of Unknown Toxicity

92.5632% of the mixture consists of ingredient(s) of unknown acute toxicity.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
163-89-88-1	Calcium magnesium carbonate	40-60
7447-40-7	Potassium chloride	15-30
471-34-1	CALCIUM CARBONATE	3-6
144-55-8	Sodium bicarbonate	3-6
7647-14-5	Sodium chloride	< 3
513-79-1	Cobalt[II] carbonate	< 0.1



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Section 4 - FIRST AID MEASURES

Description of Necessary Measures

Toxic in contact with skin.

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Skin

Wash with plenty of soap and water. Remove contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth thoroughly with water.

Most Important Symptoms/Effects

Acute

Toxic in contact with skin. Harmful if inhaled. Causes serious eye irritation. May cause allergic skin reaction.

Delayed

None Known.

Note to Physicians

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water spray, carbon dioxide, regular dry chemical, fire-fighting foam.

Unsuitable Extinguishing Media

No specific measures identified.

Fire Fighting Measures

Co-ordinate fire-fighting measures to the fire surroundings.

Special Protective Equipment and Precautions for Firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.



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Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Use Personal Protective equipment as required. Avoid contact with eyes and skin.

Methods and Materials for Containment and Cleaning Up

Collect in closed and suitable containers for disposal. Dispose of contents/container in accordance with local/regional/national/international regulations.

Environmental Precautions

None Known.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin. Do not breathe dust/fume/gas/mist/vapours/spray. Use suitable eye protection. Wear suitable protective clothing. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.

Conditions for Safe Storage, Including any Incompatibilities

Store locked up.

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store in a secure area.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

CALCIUM CARBONATE	471-34-1
NIOSH:	10 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable dust
Silica, amorphous	7631-86-9
NIOSH:	6 mg/m ³ TWA
	3000 mg/m ³ IDLH
OSHA (US):	20 mppcf TWA; ((80)/(% SiO ₂) mg/m ³ TWA)

EU - Occupational Exposure (98/24/EC) - Binding Biological Limit Values and Health Surveillance Measures

There are no biological limit values for any of this product's components.

Engineering Controls

Sufficient to maintain atmospheric concentrations below applicable regulatory limits.



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Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear face protection. Eye glasses with side protection, goggles.

Skin Protection

Wear suitable protective clothing.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection.

Glove Recommendations

Wear protective gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Powder	Physical State	solid
Odor	citrus odor	Color	Green
Odor Threshold	Not available	pH	Not available
Melting Point	Not available	Boiling Point	Not available
Freezing point	Not available	Evaporation Rate	Not available
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	Not available	Flash Point	Not available
Lower Explosive Limit	Not available	Decomposition	Not available
Upper Explosive Limit	Not available	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	Not available
Water Solubility	Not available	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Density	Not available	Molecular Weight	Not available



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Section 10 - STABILITY AND REACTIVITY

Reactivity

No known hazardous reactions.

Chemical Stability

The product is stable under storage at normal ambient temperatures.

Conditions to Avoid

Avoid contact with incompatible materials.

Incompatible Materials

None Known.

Hazardous decomposition products

No known hazardous decomposition products.

Thermal decomposition products

None Known.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

Yes.

Skin Contact

Yes.

Eye Contact

Yes.

Ingestion

Yes.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Potassium chloride (7447-40-7)

Oral LD50 Rat 2600 mg/kg

Glucose (50-99-7)

Oral LD50 Rat 25800 mg/kg

Calcium propionate (4075-81-4)

Oral LD50 Rat 3920 mg/kg

Dermal LD50 Rabbit 500 mg/kg

Inhalation LC50 Rat >19.7 mg/L 1 h

CALCIUM CARBONATE (471-34-1)

Oral LD50 Rat 6450 mg/kg



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Sodium bicarbonate (144-55-8)
Oral LD50 Rat 4220 mg/kg
Sodium chloride (7647-14-5)
Oral LD50 Rat 3 g/kg
Inhalation LC50 Rat >42 g/m³ 1 h
Nicotinamide (98-92-0)
Oral LD50 Rat 3500 mg/kg
Dermal LD50 Rabbit >2000 mg/kg
Silica, amorphous (7631-86-9)
Oral LD50 Rat >5000 mg/kg
Dermal LD50 Rabbit >2000 mg/kg
Inhalation LC50 Rat >2.2 mg/L 1 h
Sodium saccharin (128-44-9)
Oral LD50 Rat 14200 mg/kg
Vitamin A acetate (127-47-9)
Oral LD50 Rat 4980 mg/kg
Oils, grapefruit (8016-20-4)
Oral LD50 Rat >5 g/kg
Riboflavin (83-88-5)
Oral LD50 Rat >10 g/kg
Oils, orange (8008-57-9)
Oral LD50 Rat 4400 mg/kg
Vitamin D3 (67-97-0)
Oral LD50 Rat 42 mg/kg
Cobalt[II] carbonate (513-79-1)
Oral LD50 Rat 640 mg/kg
L-Ascorbic acid (50-81-7)
Oral LD50 Rat 11900 mg/kg
Pyridoxine hydrochloride (58-56-0)
Oral LD50 Rat 4000 mg/kg

Immediate Effects

No information on significant adverse effects.

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

No data available.

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.



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Component Carcinogenicity

Silica, amorphous	7631-86-9
IARC:	Monograph 68 [1997]; Supplement 7 [1987] (Group 3 (not classifiable))
Sodium saccharin	128-44-9
IARC:	Monograph 73 [1999] (downgraded from 2B to 3); Supplement 7 [1987]; Monograph 22 [1980] (Group 3 (not classifiable))
Cobalt[II] carbonate	513-79-1
IARC:	Monograph 52 [1991] (Group 2B (possibly carcinogenic to humans))
DFG:	Category 2 (considered to be carcinogenic for man)
OSHA:	Present
Menadione sodium bisulfite	130-37-0
IARC:	Monograph 76 [2000] (Group 3 (not classifiable))

Germ Cell Mutagenicity

No data available.

Tumorigenic Data

No data available.

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

No data available.

Specific Target Organ Toxicity - Repeated Exposure

No data available.

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

No data available.



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Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Potassium chloride	7447-40-7
Fish:	LC50 96 h <i>Lepomis macrochirus</i> 1060 mg/L [static]; LC50 96 h <i>Pimephales promelas</i> 750 - 1020 mg/L [static]
Algae:	EC50 72 h <i>Desmodesmus subspicatus</i> 2500 mg/L IUCLID
Invertebrate:	EC50 48 h <i>Daphnia magna</i> 825 mg/L IUCLID; EC50 48 h <i>Daphnia magna</i> 83 mg/L [static] EPA
Calcium propionate	4075-81-4
Algae:	EC50 72 h <i>Desmodesmus subspicatus</i> >500 mg/L IUCLID
Invertebrate:	EC50 48 h <i>Daphnia magna</i> >500 mg/L IUCLID
Sodium bicarbonate	144-55-8
Fish:	LC50 96 h <i>Lepomis macrochirus</i> 8250 - 9000 mg/L [static]
Invertebrate:	EC50 48 h <i>Daphnia magna</i> 2350 mg/L IUCLID
Sodium chloride	7647-14-5
Fish:	LC50 96 h <i>Lepomis macrochirus</i> 5560 - 6080 mg/L [flow-through]; LC50 96 h <i>Lepomis macrochirus</i> 12946 mg/L [static]; LC50 96 h <i>Pimephales promelas</i> 6020 - 7070 mg/L [static]; LC50 96 h <i>Pimephales promelas</i> 7050 mg/L [semi-static]; LC50 96 h <i>Pimephales promelas</i> 6420 - 6700 mg/L [static]; LC50 96 h <i>Oncorhynchus mykiss</i> 4747 - 7824 mg/L [flow-through]
Invertebrate:	EC50 48 h <i>Daphnia magna</i> 1000 mg/L IUCLID; EC50 48 h <i>Daphnia magna</i> 340.7 - 469.2 mg/L [static] EPA
Nicotinamide	98-92-0
Fish:	LC50 96 h <i>Poecilia reticulata</i> >1000 mg/L [static]
Silica, amorphous	7631-86-9
Fish:	LC50 96 h <i>Brachydanio rerio</i> 5000 mg/L [static]
Algae:	EC50 72 h <i>Pseudokirchneriella subcapitata</i> 440 mg/L IUCLID
Invertebrate:	EC50 48 h <i>Ceriodaphnia dubia</i> 7600 mg/L IUCLID
Sodium saccharin	128-44-9
Fish:	LC50 96 h <i>Pimephales promelas</i> 16400 - 20400 mg/L [static] (30 days old)



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Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

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

Section 14 - TRANSPORT INFORMATION

US DOT Information:

No Classification assigned.

TDG Information:

No Classification assigned.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Silica, amorphous	7631-86-9	Yes	Yes	Yes	Yes	Yes
Sodium saccharin	128-44-9	No	Yes	No	No	Yes

Not listed under California Proposition 65

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL.

Silica, amorphous	7631-86-9
	1 %



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Component Analysis - Inventory

Potassium chloride (7447-40-7)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

CALCIUM CARBONATE (471-34-1)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Sodium bicarbonate (144-55-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Sodium chloride (7647-14-5)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Cobalt[II] carbonate (513-79-1)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No



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Section 16 - OTHER INFORMATION

Summary of Changes

New SDS: 10/15/2015

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of Ralco's knowledge, information and belief at the date of preparation. The information provided is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The conditions or methods of said handling, storage, use, and disposal of this product are beyond our control. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expenses arising out of or connected with the handling, storage, use, or disposal of this product. The information provided relates only to the specific material designated, and may not be valid for such material used in combination with any other materials or in any process, unless specified in text.