

Safety Data Sheet**Material Name: Ralco Horse Relief, Product Code: 7510****SDS ID: 7510**

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Ralco Horse Relief, Product Code: 7510

Product Use

A Complete Livestock Feed.

Restrictions on Use

Use Only as Directed on Label.

Provide fresh, clean water at all times.

Details of the supplier of the safety data sheet

Ralco Nutrition, Inc.

1600 Hahn Road

Marshall, MN 56258

Phone: 1-800-533-5306

Section 2 - HAZARDS IDENTIFICATION

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

None needed according to classification criteria

GHS Label Elements**Symbol(s)**

None needed according to classification criteria

Signal Word

None needed according to classification criteria

Hazard Statement(s)

None needed according to classification criteria.

Precautionary Statement(s)**Prevention**

None needed according to classification criteria.

Response

None needed according to classification criteria.

Storage

None needed according to classification criteria.

Disposal

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

Other Hazards

May form combustible dust concentrations in air.

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Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
n/a	Wheat Midds	10-45
n/a	Oat Grain	5-30
n/a	Soy Hulls	5-30
n/a	Soybeans roasted	5-30

Section 4 - FIRST AID MEASURES

Inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin

Wash thoroughly after handling.

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**

None Known.

Delayed

None Known.

Note to Physicians

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media**Suitable Extinguishing Media**

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

Unsuitable Extinguishing Media

None Known.

Hazardous Combustion Products

May form combustible dust concentrations in air.

Fire Fighting Measures

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

Knock down dust with water spray jet.

Special Protective Equipment and Precautions for Firefighters

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

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Use Personal Protective equipment as required.

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

Use Personal Protective equipment as required.

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place.

Keep container tightly closed.

Store locked up.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION
Component Exposure Limits

Calcium carbonate	471-34-1
NIOSH:	10 mg/m3 TWA total dust; 5 mg/m3 TWA respirable dust
Zinc oxide	1314-13-2
ACGIH:	2 mg/m3 TWA respirable particulate matter
	10 mg/m3 STEL respirable particulate matter
NIOSH:	5 mg/m3 TWA dust and fume
	10 mg/m3 STEL fume
	15 mg/m3 Ceiling dust
	500 mg/m3 IDLH
OSHA (US):	5 mg/m3 TWA fume; 15 mg/m3 TWA total dust; 5 mg/m3 TWA respirable fraction
Mexico:	5 mg/m3 TWA VLE-PPT fume; 10 mg/m3 TWA VLE-PPT dust
	10 mg/m3 STEL [PPT-CT] fume
Magnesium oxide	1309-48-4
ACGIH:	10 mg/m3 TWA inhalable particulate matter
NIOSH:	750 mg/m3 IDLH fume
OSHA (US):	15 mg/m3 TWA fume, total particulate
Mexico:	10 mg/m3 TWA VLE-PPT as Mg fume
Diatomaceous earth	61790-53-2
OSHA (US):	((80)/(% SiO ₂) mg/m3 TWA); 20 mppcf TWA
Mexico:	10 mg/m3 TWA VLE-PPT inhalable fraction
Red iron oxide	1309-37-1
ACGIH:	5 mg/m3 TWA respirable particulate matter
NIOSH:	5 mg/m3 TWA as Fe dust and fume
	2500 mg/m3 IDLH as Fe dust and fume
OSHA (US):	10 mg/m3 TWA fume; 15 mg/m3 TWA total dust; 5 mg/m3 TWA respirable fraction
Mexico:	5 mg/m3 TWA VLE-PPT
	10 mg/m3 STEL [PPT-CT] as Fe

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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.

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

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

Engineering Controls

Sufficient to maintain atmospheric concentrations below applicable regulatory limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Use suitable eye protection.

Wear face protection.

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	Pellet.	Physical State	Solid.
Odor	Cereal.	Color	Brown.
Odor Threshold	Not available	pH	Not available
Melting Point	Not available	Boiling Point	Not available
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	Not available	Flammability (solid, gas)	Not available
Autoignition Temperature	Not available	Flash Point	Not available
Lower Explosive Limit	Not available	Decomposition temperature	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

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

None Known.

Section 11 - TOXICOLOGICAL INFORMATION

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:

Monocalcium phosphate (7758-23-8)

Oral LD50 Rat 3986 mg/kg

Dermal LD50 Rabbit >2 g/kg

Calcium carbonate (471-34-1)

Oral LD50 Rat 6450 mg/kg

Sodium bicarbonate (144-55-8)

Oral LD50 Rat 4220 mg/kg

Retinol, acetate (127-47-9)

Oral LD50 Rat 4980 mg/kg

Sodium chloride (7647-14-5)

Oral LD50 Rat 3 g/kg

Inhalation LC50 Rat >42 g/m³ 1 h

Zinc oxide (1314-13-2)

Oral LD50 Rat >5000 mg/kg

Manganous oxide (1344-43-0)

Oral LD50 Mouse 1000 mg/kg

Calcium pantothenate (137-08-6)

Oral LD50 Rat >10 g/kg

Pyridoxine hydrochloride (58-56-0)

Oral LD50 Rat 4000 mg/kg

White mineral oil (8042-47-5)

Oral LD50 Rat >5000 mg/kg

Niacin (59-67-6)

Oral LD50 Rat 7 g/kg

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Dermal LD50 Rat >2000 mg/kg
 Cholecalciferol (67-97-0)
 Oral LD50 Rat 42 mg/kg
 Zinc sulfate, monohydrate (7446-19-7)
 Oral LD50 Mouse 1891 mg/kg
 Sulfur (7704-34-9)
 Oral LD50 Rat >3000 mg/kg
 Dermal LD50 Rabbit >2000 mg/kg
 Inhalation LC50 Rat >9.23 mg/L 4 h
 Riboflavin (83-88-5)
 Oral LD50 Rat >10 g/kg
 Red iron oxide (1309-37-1)
 Oral LD50 Rat >10000 mg/kg
 Sodium saccharin (128-44-9)
 Oral LD50 Rat 14200 mg/kg
 Oils, lemongrass (8007-02-1)
 Oral LD50 Rat >5 g/kg
 Cinnamaldehyde (104-55-2)
 Oral LD50 Rat 2220 mg/kg
 Dermal LD50 Rabbit 1260 mg/kg
 Sulfuric acid, copper(2+) salt (1:1), pentahydrate (7758-99-8)
 Oral LD50 Rat 960 mg/kg
 Oils, origanum (8007-11-2)
 Oral LD50 Rat 1850 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.

Component Carcinogenicity

Magnesium oxide	1309-48-4
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
Diatomaceous earth	61790-53-2
IARC:	Monograph 68 [1997] (Group 3 (not classifiable))
Red iron oxide	1309-37-1
ACGIH:	A4 - Not Classifiable as a Human Carcinogen

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IARC:	Supplement 7 [1987]; Monograph 1 [1972] (Group 3 (not classifiable))
DFG:	Category 3B (could be carcinogenic for man;with the exception of non-bioavailable ferrous oxides)
Clinoptilolite	12173-10-3
IARC:	Monograph 68 [1997] (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 carbonate hydroxide	12602-23-2
IARC:	Monograph 52 [1991] (Group 2B (possibly carcinogenic to humans))
OSHA:	Present

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

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
White mineral oil	8042-47-5
Fish:	LC50 96 h <i>Lepomis macrochirus</i> >10000 mg/L
Niacin	59-67-6
Fish:	LC50 96 h <i>Salmo trutta</i> 520 mg/L
Algae:	EC50 72 h <i>Desmodesmus subspicatus</i> 89.93 mg/L IUCLID
Invertebrate:	EC50 48 h <i>Daphnia magna</i> 77 mg/L IUCLID
Sulfur	7704-34-9
Fish:	LC50 96 h <i>Brachydanio rerio</i> 866 mg/L [static]; LC50 96 h <i>Lepomis macrochirus</i> <14 mg/L [static]; LC50 96 h <i>Oncorhynchus mykiss</i> >180 mg/L [static]
Sodium saccharin	128-44-9
Fish:	LC50 96 h <i>Pimephales promelas</i> 16400 - 20400 mg/L [static] (30 days old)
Sulfuric acid, copper(2+) salt (1:1), pentahydrate	7758-99-8
Fish:	LC50 96 h <i>Lepomis macrochirus</i> 0.66 - 1.15 mg/L [semi-static]; LC50 96 h <i>Lepomis macrochirus</i> 0.96 - 1.8 mg/L [static]; LC50 96 h <i>Oncorhynchus mykiss</i> 0.1478 - 0.165 mg/L [flow-through]; LC50 96 h <i>Oncorhynchus mykiss</i> 0.09 - 0.19 mg/L [static]; LC50 96 h <i>Pimephales promelas</i> 0.6752 mg/L [static]
Invertebrate:	EC50 48 h <i>Daphnia magna</i> 0.147 - 0.227 mg/L [Static] EPA

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Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

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

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components

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
Soybean oil	8001-22-7	No	No	No	No	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes	Yes	Yes
Magnesium oxide	1309-48-4	Yes	Yes	Yes	Yes	Yes
Diatomaceous earth	61790-53-2	No	No	Yes	Yes	No
Sulfur	7704-34-9	Yes	Yes	No	Yes	Yes
Red iron oxide	1309-37-1	Yes	Yes	Yes	Yes	Yes
Sodium saccharin	128-44-9	No	Yes	No	No	Yes

Not listed under California Proposition 65

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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

Zinc oxide	1314-13-2	1 %
Magnesium oxide	1309-48-4	1 %
Red iron oxide	1309-37-1	1 %
Oils, lemongrass	8007-02-1	1 %
Cinnamaldehyde	104-55-2	0.1 %

Component Analysis - Inventory
Zinc oxide (1314-13-2)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes

Magnesium oxide (1309-48-4)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes

Red iron oxide (1309-37-1)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes

Oils, lemongrass (8007-02-1)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	No	Yes	Yes	No	No	Yes	No	No	Yes	Yes	No	Yes

Section 16 - OTHER INFORMATION

Summary of Changes

SDS: 03/23/2017

Supersedes: 07/14/2016

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); 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; EC - European Commission; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; 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 - Inherent Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KECI - Korea Existing Chemicals Inventory; KECL - Korea Existing Chemicals List; KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; 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; MX - Mexico; NDSL - Non-Domestic Substance List (Canada); 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; PEL - Permissible Exposure Limit; 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; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); WHMIS - Workplace Hazardous Materials Information System (Canada).

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.