

CRINA® Piglets AF

5014739

Version 2.1

Revision Date 01/20/2021

Date of last issue: 03/09/2015

**SECTION 1. IDENTIFICATION**

Product name : CRINA® Piglets AF

**Manufacturer or supplier's details**

Company name of supplier : DSM Nutritional Products

Address : 45 Waterview Blvd  
Parsippany NJ 07054-1298Telephone : (908) 475-7373  
Telefax : (908) 475-7406

Emergency telephone number : 1-800-424-9300 (24 HR CHEMTREC, CA &amp; US); Outside CA &amp; US +1-703-741-5970 (COLLECT CALLS ACCEPTED)

E-mail address of person responsible for the SDS : sds.nutritionalproducts@dsm.com

**Recommended use of the chemical and restrictions on use**

Recommended use : Additive for animal nutrition in premixes and compound feeds

**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with 29 CFR 1910.1200**

Combustible dust

Skin corrosion : Category 1B

Serious eye damage : Category 1

Skin sensitisation : Category 1

**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : May form combustible dust concentrations in air.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.Precautionary statements : **Prevention:**  
P260 Do not breathe dust or mist.  
P264 Wash skin thoroughly after handling.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.**Response:**

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P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
 P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.  
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.  
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P363 Wash contaminated clothing before reuse.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

Risk of dust explosion.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Brief description of the product : Mixture (preparation) containing flavouring compounds and carrier materials

**Hazardous components**

Chemical name	CAS-No.	Concentration (% w/w)
limestone	1317-65-3	>= 20 - < 30
silicon dioxide, amorphous	112926-00-8	>= 5 - < 10
thymol	89-83-8	>= 5 - < 10
Oils, curcuma	8024-37-1	>= 1 - < 5
eugenol	97-53-0	>= 1 - < 5
2-phenylethanol (Vapour and aerosols)	60-12-8	>= 1 - < 5
benzyl salicylate	118-58-1	>= 1 - < 5
2,6-di-tert-butyl-p-cresol	128-37-0	>= 1 - < 5

Actual concentration is withheld as a trade secret

**SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.  
Keep patient warm and at rest.  
Keep respiratory tract clear.  
If unconscious, place in recovery position and seek medical advice.  
Call a physician or poison control centre immediately.

In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.

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		Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
In case of eye contact	:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. Continue rinsing eyes during transport to hospital. Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
If swallowed	:	Rinse mouth with water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Take victim immediately to hospital.
Most important symptoms and effects, both acute and delayed	:	No specific symptoms known.
Notes to physician	:	Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media	:	Water Foam
Specific hazards during fire-fighting	:	None known.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Consider dust explosion hazard.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures	:	Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid breathing dust.
Environmental precautions	:	Do not flush into surface water or sanitary sewer system.
Methods and materials for containment and cleaning up	:	Pick up and arrange disposal without creating dust.

**SECTION 7. HANDLING AND STORAGE**

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- Advice on protection against fire and explosion : Avoid dust formation.  
Provide appropriate exhaust ventilation at places where dust is formed.  
Take precautionary measures against static discharges.
- Advice on safe handling : Avoid contact with skin and eyes.  
For personal protection see section 8.  
Dispose of rinse water in accordance with local and national regulations.  
Do not breathe vapours/dust.  
Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : Unsuitable materials for containers:  
Plastic  
Plexiglass
- Keep container tightly closed and dry.
- To maintain product quality, do not store in heat or direct sunlight.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
limestone	1317-65-3	TWA (total dust)	15 mg/m <sup>3</sup>	OSHA Z-1
		TWA (respirable fraction)	5 mg/m <sup>3</sup>	OSHA Z-1
silicon dioxide, amorphous	112926-00-8	TWA	6 mg/m <sup>3</sup>	OSHA P0
		TWA (Dust)	80 mg/m <sup>3</sup> / %SiO <sub>2</sub> (Silica)	OSHA Z-3
2,6-di-tert-butyl-p-cresol	128-37-0	TWA (Inhalable fraction and vapor)	2 mg/m <sup>3</sup>	ACGIH
		TWA	10 mg/m <sup>3</sup>	NIOSH REL
		TWA	10 mg/m <sup>3</sup>	OSHA P0

**Personal protective equipment**

- Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.
- Hand protection
- Material : Neoprene  
: Nitrile rubber
- Remarks : Consider the hazard characteristics of this product and any special workplace conditions when selecting the appropriate type of protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Eye protection : Safety glasses with side-shields  
Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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Hygiene measures : Avoid contact with skin, eyes and clothing.  
Wash hands before breaks and immediately after handling the product.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**
**Information on basic physical and chemical properties**

Appearance : free flowing powder, non-dusty powder  
 Colour : yellow - light brown  
 Odour : characteristic  
 Odour Threshold : No information available.  
 pH : 7.1 - 7.5 (ca.1%)  
 Melting point/range : Not applicable  
 Boiling point/boiling range : Not applicable  
 Flash point : Not applicable  
 Flammability (solid, gas) : May form combustible dust concentrations in air.  
 Vapour pressure : Not applicable  
 Relative vapour density : Not applicable  
 Density : not determined  
 Water solubility : dispersible  
 Partition coefficient: n-octanol/water : Not applicable  
 Auto-ignition temperature : No data available  
 Thermal decomposition : Decomposes on heating.  
Potential for exothermic hazard  
 Explosive properties : Not explosive  
 Oxidizing properties : No data available

**Other information**

Combustibility index for deposited dust : 4 ( 23 °C)  
 Dust explosion class : St(H)1 (Milled sample, Median value of the tested sample 0.060 mm; The value was determined in the modified Hartmann tube.)  
 Minimum ignition energy : 10 - 30 mJ (Milled sample, Median value of the tested sample 0.060 mm, EN 13821)  
 The Minimum ignition energy (MIE) of a dust/air mix depends on the particle size the water content and the temperature of the dust. The finer and the dryer the dust the lower the MIE.  
 : General remark: The indicated dust explosion characteristics are only valid for this product and are sensitive to the sample's parameters.  
 Powder volume resistivity : 5E+07 Ohmm (Product sample, Median value of the tested sample 0.438 mm)

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Minimum ignition temperature of a dust/air mix	: 400 °C (Median value of the tested sample 0.438 mm) determined in the BAM oven
Bulk density	: < 630 kg/m <sup>3</sup>

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: No hazards to be specially mentioned.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Dust may form explosive mixture in air.
Conditions to avoid	: Heat
Incompatible materials	: Oxidizing agents Strong bases  Plastic Plexiglass
Hazardous decomposition products	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg (Calculation method)
Acute inhalation toxicity	: Acute toxicity estimate : 125 mg/l (Calculation method)
Acute dermal toxicity	: Acute toxicity estimate : > 5,000 mg/kg (Calculation method)
Skin irritation	: Extremely corrosive and destructive to tissue.
Eye irritation	: May cause irreversible eye damage.
Sensitisation Oils, curcuma	: positive (In Chemico Skin Sensitisation: Direct Peptide Reactivity Assay (DPRA), OECD Test Guideline 442C)
eugenol	: The product is a skin sensitizer, sub-category 1B. (Guinea pig)
benzyl salicylate	: May cause sensitisation by skin contact. (Mouse, OECD Test Guideline 429)
Genotoxicity in vitro	: No data available

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Carcinogenicity	: This information is not available.
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Reproductive toxicity	: This information is not available.
STOT - single exposure (Acute exposure)	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	: This information is not available.
Aspiration toxicity	: No aspiration toxicity classification

**SECTION 12. ECOLOGICAL INFORMATION****Toxicity**

Toxicity to fish thymol	: Danio rerio (zebra fish) LC50 (96 h) ca. 5 mg/l
benzyl salicylate	: Danio rerio (zebra fish) LC50 (96 h) 1.03 mg/l (Regulation (EC) No. 440/2008, Annex, C.1)
Toxicity to daphnia and other aquatic invertebrates	
Oils, curcuma	: Daphnia magna (Water flea) EC50 (48 h) 22 mg/l (OECD Test Guideline 202)
eugenol	: Daphnia magna (Water flea) EC50 (48 h) 1.05 mg/l (OECD Test Guideline 202)
2,6-di-tert-butyl-p-cresol	: Daphnia magna (Water flea) EC50 (48 h) 0.48 mg/l (OECD Test Guideline 202)
Toxicity to algae benzyl salicylate	: Pseudokirchneriella subcapitata (green algae) NOEC (72 h) 0.5 mg/l

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(OECD Test Guideline 201)

No data is available on the product itself.

**Persistence and degradability**

## Biodegradability

Limestone : The methods for determining biodegradability are not applicable to inorganic substances.

thymol : Readily biodegradable.  
83 % (28 d)  
(Closed Bottle test)

Oils, curcuma : Readily biodegradable.  
73 % (28 d)  
(OECD Test Guideline 301B)

eugenol : Readily biodegradable.  
82 % (28 d)

2-phenylethanol : Readily biodegradable.  
93.1 % (14 d)  
(OECD Test Guideline 301B)

benzyl salicylate : Readily biodegradable.  
93 % (28 d)  
(OECD Test Guideline 301F)

2,6-di-tert-butyl-p-cresol : Not readily biodegradable.  
4.5 % (28 d)  
(OECD Test Guideline 301C)

No data is available on the product itself.

**Bioaccumulative potential**

Bioaccumulation : No data available

Partition coefficient: n-octanol/water : Not applicable

**Mobility in soil**

Distribution among environmental compartments : No data available

**Other adverse effects**

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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**SECTION 13. DISPOSAL CONSIDERATIONS**
**Disposal methods**

- Waste from residues : User must determine if any wastes generated exhibit hazardous characteristics as per 40 CFR Part 261 or other national / local legislation.
- Discharge into the environment must be avoided.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Do not dispose of waste into sewer.  
Offer surplus and non-recyclable solutions to a licensed disposal company.
- Contaminated packaging : Dispose of as unused product.  
Do not re-use empty containers.

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**SECTION 14. TRANSPORT INFORMATION**
**International Regulations****UNRTDG**

- UN number : UN 1759  
Proper shipping name : CORROSIVE SOLID, N.O.S.  
(thymol)  
Class : 8  
Packing group : II  
Labels : 8

**IATA-DGR**

- UN/ID No. : UN 1759  
Proper shipping name : Corrosive solid, n.o.s.  
(thymol)  
Class : 8  
Packing group : II  
Labels : Corrosive  
Packing instruction (cargo aircraft) : 863  
Packing instruction (passenger aircraft) : 859

**IMDG-Code**

- UN number : UN 1759  
Proper shipping name : CORROSIVE SOLID, N.O.S.  
(thymol)  
Class : 8  
Packing group : II  
Labels : 8  
EmS Code : F-A, S-B  
Marine pollutant : no

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**National Regulations****49 CFR**

- UN/ID/NA number : UN 1759

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Proper shipping name : Corrosive solids, n.o.s.  
(thymol)  
Class : 8  
Packing group : II  
Labels : CORROSIVE  
ERG Code : 154  
Marine pollutant : no  
Remarks : No additional requirements.

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

**SECTION 15. REGULATORY INFORMATION****EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Combustible dust  
Respiratory or skin sensitisation  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

tannins 1401-55-4 >= 1 - < 5 %

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

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**US State Regulations****Massachusetts Right To Know**

limestone	1317-65-3
silicon dioxide, amorphous	112926-00-8
2,6-di-tert-butyl-p-cresol	128-37-0

**Pennsylvania Right To Know**

limestone	1317-65-3
Grain powder / Grain flour	Not Assigned
semolina	Not Assigned
silicon dioxide, amorphous	112926-00-8
thymol	89-83-8
Oils, curcuma	8024-37-1
tannins	1401-55-4
2,6-di-tert-butyl-p-cresol	128-37-0

**Maine Chemicals of High Concern**

Product does not contain any listed chemicals

**Vermont Chemicals of High Concern**

Product does not contain any listed chemicals

**Washington Chemicals of High Concern**

Product does not contain any listed chemicals

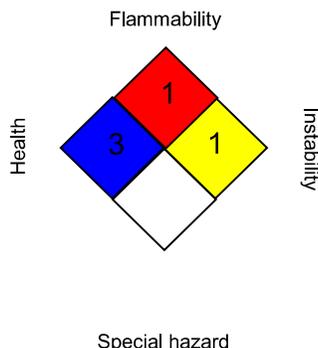
**California List of Hazardous Substances**

eugenol	97-53-0
2,6-di-tert-butyl-p-cresol	128-37-0

**TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

**SECTION 16. OTHER INFORMATION****Further information****NFPA 704:****HMIS® IV:**

<b>HEALTH</b>	/	3
<b>FLAMMABILITY</b>	1	
<b>PHYSICAL HAZARD</b>	1	

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

**Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

ACGIH = American Conference of Governmental Industrial Hygienists. CFR = Code of Federal Regulations. EPA = Environmental Protection Agency. NIOSH = National Institute of Occupation-

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al Safety and Health. OSHA = Occupational Safety and Health Administration. STEL = Short term exposure limit. TLV = Threshold Limit Value. TLV-C = Ceiling Limit Value. TWA = Time Weighted Average.

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information 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 the text.

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