

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



**VevoVital®**

**5003601**

Version 5.0

Revision Date 30.06.2015

Print Date 30.06.2015

## 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name : VevoVital®  
Substance name : Benzoic acid  
Index-No. : 607-705-00-8  
CAS-No. : 65-85-0

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Additive for animal nutrition in premixes and compound feeds  
Remarks : A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 and/or Annex IV or V of REACH regulation (EC) No 1907/2006.

### 1.3 Details of the supplier of the safety data sheet

Company : DSM Nutritional Products Ltd.  
PO Box 2676  
CH-4002 Basel  
Telephone : +41618158888  
Telefax : +41618157253  
E-mail address : sds.nutritionalproducts@dsm.com  
Responsible/issuing person

### 1.4 Emergency telephone number

+41 62 866 2314

## 2. Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2 H315: Causes skin irritation.  
Serious eye damage, Category 1 H318: Causes serious eye damage.  
Specific target organ toxicity - repeated exposure, Category 1, Lungs H372: Causes damage to organs through prolonged or repeated exposure if inhaled.

#### Classification (67/548/EEC, 1999/45/EC)

Toxic R48/23: Toxic: danger of serious damage to health by prolonged exposure through inhalation.  
Irritant R38: Irritating to skin.  
R41: Risk of serious damage to eyes.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



**VevoVital®**

**5003601**

Version 5.0

Revision Date 30.06.2015

Print Date 30.06.2015

**Hazard statements** : H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H372 Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.

**Precautionary statements** : **Prevention:**  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:  
65-85-0 benzoic acid

## 2.3 Other hazards

Risk of dust explosion.

## 3. Composition/information on ingredients

Synonyms : E 210  
Brief description of the product : Substance  
Molecular formula : C7 H6 O2

### 3.1 Substances

#### Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
benzoic acid	65-85-0 200-618-2	T; R48/23 Xi; R38-R41	Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT RE 1; H372	>= 90 - <= 100

## 4. First aid measures

### 4.1 Description of 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.  
Consult a physician after significant exposure.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



**VevoVitall®**

**5003601**

Version 5.0

Revision Date 30.06.2015

Print Date 30.06.2015

- In case of skin contact : Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician.
- 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 : Clean mouth with water and drink afterwards plenty of water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Obtain medical attention. Do NOT induce vomiting.

## 4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : May cause allergy-like reactions (i.e. rash, asthma) in individuals with repeated nettle-rashes and/or asthma attacks in their history. Ingestion may provoke the following symptoms: Irritation of mucous membranes, Nausea, Vomiting, Diarrhoea, Gastrointestinal disturbance, Convulsions

## 4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

## 5. Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Water  
Foam

### 5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : None known.

### 5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Consider dust explosion hazard.

## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



**VevoVitall®**

**5003601**

Version 5.0

Revision Date 30.06.2015

Print Date 30.06.2015

Evacuate personnel to safe areas.  
Use personal protective equipment.  
Ensure adequate ventilation.  
Avoid dust formation.  
Avoid breathing dust.

## 6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

## 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust.  
Keep in suitable, closed containers for disposal.

## 6.4 Reference to other sections

For personal protection see section 8.  
For disposal considerations see section 13.

## 7. Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of respirable particles.  
Avoid exceeding the given occupational exposure limits (see section 8).  
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.

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.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed and dry.  
Storage temperature : < 25 °C

### 7.3 Specific end use(s)

Specific use(s) : Not applicable

## 8. Exposure controls/personal protection

### 8.1 Control parameters

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



**VevoVitall®**

**5003601**

Version 5.0

Revision Date 30.06.2015

Print Date 30.06.2015

Contains no substances with occupational exposure limit values.

## 8.2 Exposure controls

### Personal protective equipment

- Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.
- Hand protection : Glove material: for example nitrile rubber  
: 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.
- Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Avoid contact with skin, eyes and clothing.  
Wash hands before breaks and immediately after handling the product.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Appearance : flakes
- Colour : white
- Odour : characteristic
- Odour Threshold : No information available.
- pH : 3,1 (1 g/l)
- Melting point/range : 121,5 - 122,5 °C
- Boiling point/boiling range : 249 °C (at 1 013 hPa)
- Flash point : 121 °C (closed cup)
- Flammability (solid, gas) : not highly flammable (Method: Flammability (solids))
- Vapour pressure : 0,001 hPa (at 20 °C)
- Relative vapour density : Not applicable
- Density : 1,32 g/cm<sup>3</sup>
- Water solubility : 2,9 g/l (25 °C)
- Solubility in other solvents : Methanol: soluble  
Diethylether: soluble
- Partition coefficient: n-octanol/water : log Pow 1,9

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



**VevoVitall®**

**5003601**

Version 5.0

Revision Date 30.06.2015

Print Date 30.06.2015

Auto-ignition temperature	: No data available
Ignition temperature	: 571 °C
Thermal decomposition	: Not relevant
Explosive properties	: Not explosive (Expert judgement)
Oxidizing properties	: Not oxidizing (Expert judgement)

## 9.2 Other information

Dust explosion class	: St(H)2 (100 % < 0,063 mm)
Minimum ignition energy	: (Product sample, Median value of the tested sample > 0,5 mm) does not ignite  : 3 - 10 mJ (Test performed using a similar product., Milled sample, Median value of the tested sample > 0,063 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.
Minimum ignition temperature of a dust/air mix	: > 480 °C (Median value of the tested sample 0,923 mm) Test performed using a similar product., determined in the BAM oven
Molecular weight	: 122,12 g/mol
Dissociation constant	: pKa 4,19 (25 °C)
Bulk density	: 540 kg/m <sup>3</sup>
Surface tension	: 67,5 mN/m (1 g/l, 20 °C, OECD Test Guideline 115) publicly available data

## 10. Stability and reactivity

### 10.1 Reactivity

No hazards to be specially mentioned.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Dust may form explosive mixture in air.

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



**VevoVitall®**

**5003601**

Version 5.0

Revision Date 30.06.2015

Print Date 30.06.2015

Strong oxidizing agents  
Reducing agents  
Bases

## 10.6 Hazardous decomposition products

No decomposition if used as directed.

## 11. Toxicological information

### 11.1 Information on toxicological effects

- Acute oral toxicity : LD50 (Rat): 2 250 mg/kg  
publicly available data (OECD Test Guideline 401)
- Acute inhalation toxicity : LC50 (Rat, 4 h): > 12,2 mg/l
- Acute dermal toxicity : LD50 (Rabbit): > 2 000 mg/kg
- Skin corrosion/irritation : Irritating to skin. (Guinea pig)  
publicly available data
- Serious eye damage/eye irritation : Severe eye irritation (Rabbit)
- Respiratory or skin sensitisation : Did not cause sensitization. (Mouse, Local Lymph Node Assay (LLNA))  
publicly available data
- Genotoxicity in vitro : not mutagenic, not genotoxic (Various test systems)
- Carcinogenicity : No indication for carcinogenicity known.
- Reproductive toxicity : No indication for adverse effects on fertility known.
- Teratogenicity : No indication for teratogenicity known.
- STOT - single exposure : The substance or mixture is not classified as specific target organ toxicant, single exposure.
- STOT - repeated exposure : NOAEL (Oral, Rat) : > 750 mg/kg bw/d  
Chronic toxicity
- : NOAEL (inhalation (dust/mist/fume), Rat) : 250 mg/m<sup>3</sup>  
Subacute toxicity study (28 days)  
publicly available data
- : NOAEL (Dermal, Rabbit) : > 2500 mg/kg bw/d  
Subacute toxicity study (21 days)  
publicly available data

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



**VevoVitall®**

**5003601**

Version 5.0

Revision Date 30.06.2015

Print Date 30.06.2015

STOT - repeated exposure	: Exposure routes: Inhalation Target Organs: Lungs Causes damage to organs through prolonged or repeated exposure if inhaled., The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.
Aspiration toxicity	: No aspiration toxicity classification
Further information	: The product may be absorbed through the skin.  : May cause irritation of respiratory tract.
Experience with human exposure	: May cause allergy-like reactions (i.e. rash, asthma) in individuals with repeated nettle-rashes and/or asthma attacks in their history. : ADI (Acceptable Daily Intake) 5 mg/kg body weight
Experience with human exposure: Ingestion	: Ingestion may provoke the following symptoms:  : Irritation of mucous membranes, Nausea, Vomiting, Diarrhoea, Gastrointestinal disturbance, Convulsions

## 12. Ecological information

### 12.1 Toxicity

Toxicity to fish	: Lepomis macrochirus (Bluegill sunfish) LC50 (96 h) 44,6 mg/l publicly available data
Toxicity to daphnia and other aquatic invertebrates	: Daphnia (water flea) EC50 (48 h) > 100 mg/l
Toxicity to algae	: Algae IC50 (72 h) > 10 mg/l
Toxicity to bacteria	: activated sludge EC50 (3 h) > 1 000 mg/l (OECD Test Guideline 209)
Toxicity to fish (Chronic toxicity)	: Oncorhynchus mykiss (rainbow trout) NOEC (28 d) 120 mg/l publicly available data (OECD Test Guideline 204)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: Daphnia magna (Water flea) NOEC (21 d) >= 25 mg/l publicly available data

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



**VevoVital®**

**5003601**

Version 5.0

Revision Date 30.06.2015

Print Date 30.06.2015

(OECD Test Guideline 211)

## 12.2 Persistence and degradability

Biodegradability : Readily biodegradable  
> 71,5 % (6 d)  
(OECD Test Guideline 301D)

## 12.3 Bioaccumulative potential

Bioaccumulation : Species: Leuciscus idus (Golden orfe)  
Exposure time: 3 d  
Bioconcentration factor (BCF): < 10  
Elimination: yes  
Does not bioaccumulate.

Partition coefficient: n-  
octanol/water : log Pow 1,9

## 12.4 Mobility in soil

Distribution among  
environmental compartments : Adsorption, activated sludge  
Koc 1300  
moderate mobility

Surface tension : 67,5 mN/m (1 g/l, 20 °C, OECD Test Guideline 115)  
publicly available data

## 12.5 Results of PBT and vPvB assessment

Assessment : The substance does not fulfill the PBT criteria.  
: The substance does not fulfill the vPvB criteria.

## 12.6 Other adverse effects

Biochemical Oxygen  
Demand (BOD) : 1 400 mg/g  
Chemical Oxygen Demand  
(COD) : 1 950 mg/g  
Additional ecological  
information : Harmful to aquatic organisms.

## 13. Disposal considerations

### 13.1 Waste treatment methods

Product : 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.

## 14. Transport information

### 14.1 UN number

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



**VevoVitall®**

**5003601**

Version 5.0

Revision Date 30.06.2015

Print Date 30.06.2015

**ADR**

Not dangerous goods

**RID**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**14.2 Proper shipping name**

**ADR**

Not dangerous goods

**RID**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**14.3 Transport hazard class**

**ADR**

Not dangerous goods

**RID**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**14.4 Packing group**

**ADR**

Not dangerous goods

**RID**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**14.5 Environmental hazards**

**ADR**

Not dangerous goods

**RID**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**14.6 Special precautions for user**

Not classified as dangerous in the meaning of transport regulations.

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

Remarks : Not applicable

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



**VevoVitall®**

**5003601**

Version 5.0

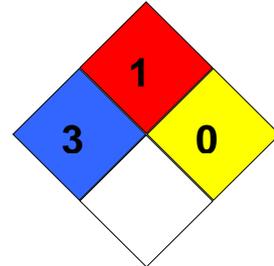
Revision Date 30.06.2015

Print Date 30.06.2015

## 15. Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**NFPA Classification** : Health hazard: 3  
Fire Hazard: 1  
Reactivity Hazard: 0



### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

## 16. Other information

### Full text of R-phrases referred to under sections 2 and 3

R38 Irritating to skin.  
R41 Risk of serious damage to eyes.  
R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.

### Full text of H-Statements referred to under sections 2 and 3.

H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H372 Causes damage to organs through prolonged or repeated exposure if inhaled.

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.

**Abbreviations:** 67/548/EEC= Dangerous Substances Directive. 1999/45/EC= Dangerous Preparations Directive. Regulation (EC) No. 1272/2008= Regulation on classification, labelling and packaging of substances and mixtures. DNEL= Derived No-Effect Level. PNEC= Predicted No-Effect Concentration. NFPA= National Fire Protection Association (USA). IATA= International Air Transport Association. IMDG= International Maritime Dangerous Goods. RID= International Rule for Transport of Dangerous Substances by Railway; ADR= European Agreement concerning the International Carriage of Dangerous Goods by Road. TWA= Time Weighted Average. STEL= Short term exposure limit. WEL = Workplace Exposure Limit.