according to Regulation (EC) No. 1907/2006



PeptoPro® 5007143

Version 1.2 Revision Date 28.04.2015 Print Date 07.08.2019

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

1.1 Product identifier

Trade name : PeptoPro®

Substance name : Caseins, hydrolyzates

CAS-No. : 65072-00-6

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

Use of the : For the fortification of foods

Substance/Mixture

1.3 Details of the supplier of the safety data sheet

Company : DSM Nutritional Products Europe Ltd

PO Box 2676 CH-4002 Basel

Telephone : +41618157777 Telefax : +41618157770

E-mail address : sds.nutritionalproducts@dsm.com

Responsible/issuing person

1.4 Emergency telephone number

+41 848 00 11 77 (Carechem 24 International)

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

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

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.3 Other hazards

Risk of dust explosion.

3. Composition/information on ingredients

Brief description of the : Processed natural product

product

EINECS-No. : 265-363-1

3.1 Substances

Remarks : No hazardous ingredients

according to Regulation (EC) No. 1907/2006



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4. First aid measures

4.1 Description of first aid measures

General advice : No hazards which require special first aid measures.

If inhaled : Move to fresh air.

If symptoms persist, call a physician.

In case of skin contact : Take off contaminated clothing and shoes immediately.

Wash off with soap and plenty of water.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

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.

4.2 Most important symptoms and effects, both acute and delayed

: No specific symptoms known. **Symptoms**

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

for firefighters

Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

Further information : Consider dust explosion hazard.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

Avoid dust formation.

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6.2 Environmental precautions

Try to prevent the material from entering drains or water courses.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel.

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 : For personal protection see section 8.

Advice on protection against

fire and explosion

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.

Advice on common storage : No special restrictions on storage with other products.

: Avoid dust formation.

Storage temperature : < 25 °C

7.3 Specific end use(s)

Specific use(s) : Not applicable

8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally

reauired.

In case of high dust concentration use a dust mask applicable

to local conditions.

Hand protection : Glove material: for example nitrile rubber

Eye protection : Safety glasses

Skin and body protection : Lightweight protective clothing

Hygiene measures : General industrial hygiene practice.

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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : powder

Colour : white - light cream

Odour Threshold : No information available.

pH : 4 - 5 (5%, 20 °C)

(as aqueous solution)

Melting point/range : 48 - 50 °C

Boiling point/boiling range : 135 - 140 °C

Decomposes on heating.

Flash point : Not applicable

Flammability (solid, gas) : May form combustible dust concentrations in air

Vapour pressure : not determined
Relative vapour density : Not applicable
Density : not determined
Water solubility : > 150 g/l (20 °C)

Partition coefficient: n-

octanol/water

: log Pow < 3

Thermal decomposition : Decomposes on heating.

Potential for exothermic hazard

Explosive properties : No data available

Oxidizing properties : No data available

9.2 Other information

Combustibility index for

deposited dust

: 3 (23 °C)

: 3 (100 °C)

Dust explosion class : St(H)1 (Milled sample, Median value of the tested sample

0,029 mm, Loss on drying 3,8 %; The value was determined

in the modified Hartmann tube.)

Minimum ignition energy : 300 - 1 000 mJ (Milled sample, Median value of the tested

sample 0,029 mm, Loss on drying 3,8 %, 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 : ca. 5E+12 Ohmm (Milled sample, Median value of the tested

sample 0,029 mm, Loss on drying 3,8 %)

The material can accumulate static charge and can therefore

cause electrical ignition.

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Minimum ignition : $>= 460 \, ^{\circ}\text{C}$ (Median value of the tested sample 0,029 mm)

temperature of a dust/air mix determined in the BAM oven

Particle size : <= 2 % <= 0.053 mm

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

10.5 Incompatible materials

Strong acids and strong bases Strong oxidizing agents

10.6 Hazardous decomposition products

No decomposition if used as directed.

11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity : No data available

Skin corrosion/irritation : not phototoxic (In vitro study, OECD Test Guideline 432)

: Prolonged skin contact may cause skin irritation.

Serious eye damage/eye

irritation

: Dust contact with the eyes can lead to mechanical irritation.

Respiratory or skin

sensitisation

: Did not cause sensitization. (Mouse, Local Lymph Node Assay

(LLNA), OECD Test Guideline 429)

Genotoxicity in vitro : not mutagenic (Ames test, OECD Test Guideline 471)

: not photomutagenic (Ames test, OECD Test Guideline 471)

Carcinogenicity : This information is not available.

Reproductive toxicity : This information is not available.

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STOT - single 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

12. Ecological information

12.1 Toxicity

No data is available on the product itself.

12.2 Persistence and degradability

Biodegradability : Readily biodegradable

12.3 Bioaccumulative potential

Partition coefficient: n-

octanol/water

: log Pow < 3

12.4 Mobility in soil

Distribution among

: No data available

environmental compartments

12.5 Results of PBT and vPvB assessment

Assessment : The substance does not fullfill the PBT criteria., The substance

does not fullfill the vPvB criteria.

12.6 Other adverse effects

Additional ecological

information

: There is no data available for this product.

13. Disposal considerations

13.1 Waste treatment methods

Product : Offer surplus and non-recyclable solutions to a licensed

disposal company.

Contaminated packaging : Empty containers should be taken to an approved waste

handling site for recycling or disposal.

14. Transport information

14.1 UN number

ADR

Not dangerous goods

RID

Not dangerous goods

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IMDG

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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

No data available

15. Regulatory information

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

according to Regulation (EC) No. 1907/2006

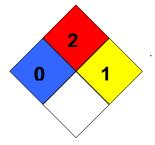


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NFPA Classification : Health hazard: 0

Fire Hazard: 2 Reactivity Hazard: 1



15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

16. Other information

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.