Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Transport of Dangerous Goods **27 May 2010**

Thirty-seventh session
Geneva, 21–30 June 2010
Item 3 of the provisional agenda
Listing, classification and packing

Addendum to ST/SG/AC.10/C.3/2010/4 (Norway)

Summary of test results and Data Sheet for Krill Meal

Transmitted by the expert from the Norway

1. Reference is made to document ST/SG/AC.10/C.3/2010/4.

2. A minor correction has to be made to document ST/SG/AC.10/C.3/2010/4, paragraph 1. For the text in brackets: Replace (ethoxyquin) with (astaxanthin and vitamin E).

3. This informal document contains a short summary of the test results for six different krill meals. The self-heating properties were assessed in accordance with the test method N.4 of the United Nations Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria. Tests were performed by TNO Defence, Security and Safety in the Netherlands.

4. The Annex to this informal document contains the Data Sheet for classification of Krill Meal.

Test results for krill meal (summary from test reports)

Sample name	**Sample obtained from storage facility in:**	**Class or division**	**Packing group**
Antarctic krill meal	Belgium	4.2	III
Dried Krill Paste (powder)	Norway	4.2	II
Krill meal	Germany	4.2	III
Qrill powder	New Zealand	4.2	III
Krill meal	The Republic of Korea	4.2	III
Krill meal	The Republic of Korea	4.2	III

Annex

Data sheet to be submitted to the United Nations for new or amended classification of substances

Submitted by the Expert from Norway. Date: 16. March 2010

Supply all relevant information including sources of basic classification data. Data should relate to the product in the form to be transported. State test methods. Answer all questions - if necessary state “not known” or “not applicable” - If data is not available in the form requested, provide what is available with details. Delete inappropriate words.

Section 1. SUBSTANCE IDENTITY

1.1 Chemical name: Krill meal

1.2 Chemical formula: N/A

1.3 Other names/synonyms. N/A

1.4.1 UN number: .New…….….. 1.4.2 CAS number: 7732-18-5

1.5 Proposed classification for the Recommendations

1.5.1 proper shipping name (3.1.2): KRILL MEAL. ……

1.5.2 class/division. 4.2, subsidiary risk(s): none....packing group II, III

1.5.3 proposed special provisions, if any : 223 (applicable to the PG III entry)

1.5.4 proposed packing instruction(s): PG II: P410 and PG III: P002, LP02

Section 2. PHYSICAL PROPERTIES

2.1 Melting point or range: >300°C

2.2 Boiling point or range N/A °C

2.3 Relative density at:

2.3.1 15 °C: 0.5 g/cm^3

2.3.2 20 °C: 0.5 g/cm^3

2.3.3 50 °C: 0.5 g/cm^3

2.4 Vapour pressure at :

2.4.1 50 °C: N/A

2.4.2 65 °C: N/A

2.5 Viscosity at 20 °C N/A

2.6 Solubility in water at 20 °C: Not soluble in water

2.7 Physical state at 20°C (2.2.1.1) solid/liquid/gas[2]: Solid

2.8 Appearance at normal transport temperatures, including colour and odour: Brown powder, odour similar to that of dried fish.

2.9 Other relevant physical properties ……..

Section 3. FLAMMABILITY

3.1 Flammable vapour: N/A

3.1.1 Flash point (2.3.3): N/A

3.1.2 Is combustion sustained? (2.3.1.3): N/A

3.2 Autoignition temperature: Not known

3.3 Flammability range (LEL/UEL): N/A

3.4 Is the substance a flammable solid? (2.4.2): NO

3.4.1 If yes, give details .....

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Section 4. CHEMICAL PROPERTIES

4.1 Does the substance require inhibition/stabilization or other treatment such as nitrogen blanket to prevent hazardous reactivity ?: NO

If yes, state:

4.1.1 Inhibitor/stabilizer used .....

4.1.2 Alternative method .....

4.1.3 Time effective at 55 °C .....

4.1.4 Conditions rendering it ineffective .....

4.2 Is the substance an explosive according to paragraph 2.1.1.1? (2.1): NO

4.2.1 If yes, give details .....

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4.3 Is the substance a desensitized explosive? (2.4.2.4) : NO

4.3.1 If yes, give details .....

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4.4 Is the substance a self-reactive substance? (2.4.1): NO

If yes, state:

4.4.1 exit box of flow chart.....

What is the self-accelerating decomposition temperature (SADT) for a 50 kg package? .....°C

Is the temperature control required? (2.4.2.3.4) yes/no

4.4.2 proposed control temperature for a 50 kg package ..... °C

4.4.3 proposed emergency temperature for a 50 kg package..... °C

4.5 Is the substance pyrophoric? (2.4.3): NO

4.5.1 If yes, give details.....

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4.6 Is the substance liable to self-heating? (2.4.3): YES

4.6.1 If yes, give details: Self heating properties at PG II and PG III level in accordance with the test method N.4 of the United Nations Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.

4.7 Is the substance an organic peroxide (2.5.1): NO

If yes state:

4.7.1 exit box of flow chart.....

What is the self accelerating decomposition temperature (SADT) for a 50 kg package?..... °C

Is temperature control required? (2.5.3.4.1) yes/no

4.7.2 proposed control temperature for a 50 kg package ..... °C

4.7.3 proposed emergency temperature for a 50 kg package..... °C

4.8 Does the substance in contact with water emit flammable gases? (2.4.4): NO

4.8.1 If yes, give details .....

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4.9 Does the substance have oxidizing properties (2.5.1): NO

4.9.1 If yes, give details

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4.10 Corrosivity (2.8) to: N/A

4.10.1 mild steel .....mm/year at .....°C

4.10.2 aluminium .....mm/year at.....°C

4.10.3 other packaging materials (specify)

..... mm/year at .....°C

..... mm/year at.....°C

4.11 Other relevant chemical properties .....

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Section 5. HARMFUL BIOLOGICAL EFFECTS

5.1 LD_{50}, oral (2.6.2.1.1) .. ..mg/kg Animal species ....

5.2 LD_{50}, dermal (2.6.2.1.2).....mg/kg Animal species .....

5.3 LC_{50}, inhalation (2.6.2.1.3)..... .....mg/litre Exposure time..... hours

or ....ml/m_3 Animal species .....

5.4 Saturated vapour concentration at 20 °C (2.6.2.2.4.3) ml/m3

5.5 Skin exposure (2.8) results Exposure time ..... hours/minutes

Animal species.....

5.6 Other data. The substance is a nutrient; it shows no harmful biological effects.
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5.7 Human experience.....

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Section 6. SUPPLEMENTARY INFORMATION

6.1 Recommended emergency action: See 6.1.1

6.1.1 Fire (include suitable and unsuitable extinguishing agents): Suitable fire extinguishing agents are powder, foam or carbon dioxide.

6.1.2 Spillage.....

6.2 Is it proposed to transport the substance in:

6.2.1 Bulk Containers (6.8): NO

6.2.2 Intermediate Bulk Containers (6.5_1)?: YES

6.2.3 Portable tanks (6.7)?: YES

If yes, give details in Sections 7, 8 and/or 9.

Section 7. BULK CONTAINERS (only complete if yes in 6.2.1)

7.1 Proposed type(s) :.....

Section 8. INTERMEDIATE BULK CONTAINERS (IBCs) (only complete if yes in 6.2.2)

8.1 Proposed type(s): IBC 06 (PG II), IBC 08 (PG III). .....

Section 9. MULTIMODAL TANK TRANSPORT (only complete if yes in 6.2.3)

9.1 Description of proposed tank (including IMO tank type if known): T3, TP33 (PG II) and T1, TP33 (PG III) .....

9.2 Minimum test pressure . 2.65 bar.....

9.3 Minimum shell thickness ...see 6.7.2.4.2.....

9.4 Details of bottom openings, if any .. see 6.7.2.6.3.....

9.5 Pressure relief arrangements ...normal, see 6.7.2.8.....

9.6 Degree of filling N/A.....

9.7 Unsuitable construction materials .N/A.....