

Product: **Ekaland MMBI PD**

Page: 1 / 8

SDS No.: 100027-100 (Version 1.0)

Date 27.07.2015

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the product

Substance name: Ekaland MMBI PD

REACH Registration Number: The transition time according to REACH Regulation, Article 23, is still not expired.

EC Nr: 258-904-8

CAS-No.: 53988-10-6

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

Use of the Substance/Mixture : Antioxidant

1.3. Details of the supplier of the safety data sheet

Supplier MLPC International
209, avenue Charles Despiau
F-40370 RION-LES-LANDES
Tel. + 33 (0) 5 58 57 02 00
http://www.mlpc-intl.com
E-mail address fds@mlpc-intl.com

1.4. Emergency telephone number

+44 (0) 1235 239 670 (Carechem24 – MLPC 29003) **Europe**
001866 928 0789 (Carechem24 – MLPC 29003) **Americas**
+65 3158 1074 (Carechem24 – MLPC 29003) **Asia-pacific region** (excluding China)
+86 400 6267911 **China mainland**

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Oral: Acute toxicity, 4, H302

Inhalation: Acute toxicity, 4, H332

Reproductive toxicity, 2, H361fd

Specific target organ toxicity - repeated exposure, 2, H373

Chronic aquatic toxicity, 1, H410

Additional information:

For the full text of the H, EUH-phrases mentioned in this Section, see Section 16.

2.2. Label elements

Label elements (REGULATION (EC) No 1272/2008):

Hazardous components which must be listed on the label:

CAS-No. : 53988-10-6

1,3-Dihydro-4(or 5)-methyl-2H-benzimidazole-2-thione

Hazard pictograms:



Signal word:

Warning

Hazard statements:

H302 + H332 : Harmful if swallowed or if inhaled
H361f : Suspected of damaging fertility.
H373 : May cause damage to organs through prolonged or repeated exposure if swallowed.
H410 : Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P260 : Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P281 : Use personal protective equipment as required.

Response:

P312 : Call a POISON CENTER or doctor/ physician if you feel unwell.
P314 : Get medical advice/ attention if you feel unwell.

Storage:

P403 + P233 : Store in a well-ventilated place. Keep container tightly closed.

Disposal:

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

2.3. Other hazards : None.

Other:

Results of PBT and vPvB assessment : According to REACH regulation, annex XIII, the substance does not meet PBT and vPvB criteria.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Chemical Name ¹	EC-No.	CAS-No.	Concentration	Classification REGULATION (EC) No 1272/2008
1,3-Dihydro-4(or 5)-methyl-2H-benzimidazole-2-thione	258-904-8	53988-10-6	99 %	Acute Tox. 4; H302 Acute Tox. 4; H332 Repr. 2; H361fd Aquatic Chronic 1; H410 STOT RE 2; H373

¹: See chapter 14 for Proper Shipping Name

4. FIRST AID MEASURES

4.1. Description of necessary first-aid measures:

General advice:

Take off immediately all contaminated clothing.

Inhalation:

Move to fresh air. Oxygen or artificial respiration if needed. Consult a physician.

Skin contact:

Wash off immediately with soap and plenty of water.

Eye contact:

Wash well-open eyes immediately, abundantly and thoroughly with water. Consult an ophthalmologist immediately.

Ingestion:

If swallowed, do not induce vomiting - seek medical advice.

Protection of first-aiders:

In case of insufficient ventilation, wear suitable respiratory equipment.

4.2. Most important symptoms/effects, acute and delayed: No data available.

4.3. Indication of immediate medical attention and special treatment needed, if necessary: No data available.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Water spray, Foam, Dry powder

Unsuitable extinguishing media: All other extinguishants

5.2. Special hazards arising from the substance or mixture:

Thermal decomposition gives :

5.3. Advice for firefighters:

Specific methods:

Remove all sources of ignition. Suppress gases, fumes and/or dust with water spray jet.

Special protective actions for fire-fighters:

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

Avoid contact with skin and eyes and inhalation of dust.

6.2. Environmental precautions:

Do not let product enter drains. Do not contaminate surface water.

6.3. Methods and materials for containment and cleaning up:

Recovery:

Shovel or sweep up. Recover the product and place in a dry labelled container.

Elimination:

Destroy the product by incineration (in accordance with local and national regulations).

6.4. Reference to other sections: None.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling:

Technical measures/Precautions:

Storage and handling precautions applicable to products: Dust forming. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Provide water supplies, ocular fountains and showers near the point of use.

Hygiene measures:

General industrial hygiene practice. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities:

Keep in a well-ventilated place. Keep in a dry place. Store protected from moisture.

Incompatible products:

Strong acids, Oxidizing agents

Packaging material:

Recommended: Paper bags, Big bags.

7.3. Specific end use(s): None.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Exposure Limit Values Not relevant

Derived No Effect Level (DNEL): No data available.

Predicted No Effect Concentration: No data available.

8.2. Exposure controls:

General protective measures: Ensure sufficient air exchange and/or exhaust in work areas

Personal protective equipment:

Respiratory protection: Effective dust mask
Hand protection: Impervious gloves

Eye/face protection: Tightly fitting safety goggles
Skin and body protection: At the workplace : Protective suit.

Environmental exposure controls: See chapter 6

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:

Physical state (20°C): solid

Form: powder

Colour: beige

Odour: odourless

Olfactory threshold: No data available.

pH: No data available.

Melting point/range : Active ingredient (OECD Test Guideline 102)

Boiling point/boiling range : Decomposes on heating. (A2 Method (D. 92/69/ECC))

Flash point: Not applicable

Evaporation rate: No data available.

Flammability (solid, gas):

Flammability: Non flammable product (Flammability (solids))

Vapour pressure: 0,002 Pa (calculated)

Vapour density: No data available.

Relative density: No data available.

Water solubility: 120 mg/l at 20 °C (OECD Test Guideline 105)

Partition coefficient: n-octanol/water: log Kow : 0,4 , at 25 °C (OECD Test Guideline 117)

Auto-ignition temperature: Not applicable

Decomposition temperature: No data available.

Viscosity: No data available.

Explosive properties: No data available.

Oxidizing properties: No data available.

9.2. Other data:

pKA: Active ingredient -0,15 - 0,5 (calculated)
Active ingredient 10,6 (calculated)
Active ingredient 14,2 (calculated)

Molecular weight: Active ingredient 164 g/mol Active ingredient

10. STABILITY AND REACTIVITY

10.1. **Reactivity:** No data available.

10.2. **Chemical stability:**
Product stable in the absence of moisture

10.3. **Possibility of hazardous reactions:** No data available.

10.4. **Conditions to avoid:**
Store protected from moisture and heat. Protect from light. Keep away from direct sunlight.

10.5. **Incompatible materials to avoid:** No data available.

10.6. **Hazardous decomposition products:**
Thermal decomposition gives :, Nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:

Acute toxicity:

- Inhalation:** **Harmful if inhaled.**
May be considered as comparable to a similar product for which experimental results are:
- 1,3-DIHYDRO-4(OR 5)-METHYL-2H-BENZIMIDAZOLE-2-THIONE, ZINC SALT :
• In animals : No mortality/4 h/Rat: 2,12 mg/l
- Ingestion:** **Harmful if swallowed.**
• In animals : LD50/Rat: 330 mg/kg
- Dermal:** **Slightly or not harmful in contact with skin**
May be considered as comparable to a similar product for which experimental results are:
- 1,3-DIHYDRO-4(OR 5)-METHYL-2H-BENZIMIDAZOLE-2-THIONE, ZINC SALT :
• In animals : No mortality/Rat: 2.000 mg/kg (Method: OECD Test Guideline 402)

Local effects (Corrosion / Irritation / Serious eye damage):

- Skin contact:** **Non irritating to skin**
• In animals : No skin irritation (Rabbit, Exposure time: 24 h)
- Eye contact:** **Not irritating to the eyes.**
• In animals : No eye irritation (Rabbit)

Respiratory or skin sensitisation:

- Inhalation:** No data available.
- Skin contact:** **Not a skin sensitizer**
• In animals : No effect is reported. (Method: OECD Test Guideline 429 LLNA: Local Lymph Node Assay, Mouse)

CMR effects :

Mutagenicity: **Results from tests do not lead to considering the product as genotoxic**

In vitro

Ames test in vitro: Inactive (Method: OECD Test Guideline 471)
In vitro gene mutations test on mammalian cells: Inactive (Method: OECD Test Guideline 476)
Chromosome aberration test in vitro: Inactive (Method: OECD Test Guideline 473) ((Results obtained on a similar product).)

Carcinogenicity: No data available.

Reproductive toxicity:

Fertility: **Suspected of damaging fertility.**
May be considered as comparable to a similar product for which experimental results are:

1,3-DIHYDRO-4(OR 5)-METHYL-2H-BENZIMIDAZOLE-2-THIONE, ZINC SALT :
• In animals : Reproductive/Developmental Effects Screening Assay: Effects on fertility
NOAEL (Parental toxicity): 45 mg/kg bw/day
NOAEL (Fertility) : < 45 mg/kg bw/day
(Method: OECD Test Guideline 422, Rat, By diet)

Foetal development: No data available.

Specific target organ toxicity :

Single exposure : No data available.

Repeated exposure: **The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.**
Exposure routes : Oral

• In animals : By oral route: NOAEL= 20 mg/kg (Rat, 28 d)

Aspiration hazard: Not applicable

12. ECOLOGICAL INFORMATION

Ecotoxicology Assessment: All available data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.

Acute aquatic toxicity : Toxic to aquatic life.
Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

12.1. Toxicity :

Fish: **Harmful to fish.**
LC50, 5 d (Danio rerio (zebra fish)) : 37,2 mg/l (Method: No information available.)

Aquatic invertebrates: **Toxic to daphnia.**
EC50, 48 h (Daphnia magna (Water flea)) : 1,9 mg/l (Method: OECD Test Guideline 202, Immobilization)

Aquatic plants: **Harmful to algae.**
EC50, 72 h (Desmodesmus subspicatus (green algae)) : 62 mg/l (Method: OECD Test Guideline 201, growth rate inhibition)

Microorganisms:
EC50, 3 h (Activated sludge) : > 10.000 mg/l (Method: OECD Test Guideline 209)

Aquatic toxicity / Long term toxicity:

Aquatic invertebrates:
NOEC, 21 d (Daphnia magna (Water flea)) : 0,034 mg/l (Method: OECD Test Guideline 211, Immobilization)

Aquatic plants:
EC50, 72 h (Desmodesmus subspicatus (green algae)) : 36 mg/l (Method: OECD Test Guideline 201, growth rate inhibition)

12.2. Persistence and degradability :

In water: **Not hydrolysable**

Stability in water:
: Half-life: > 1 y at 20 °C
Method: OECD Test Guideline 111

Biodegradation (In water): **Not readily biodegradable.**
0 % after 28 d (Method: OECD Test Guideline 301 C)

12.3. Bioaccumulative potential :

Partition coefficient: n-octanol/water: log Kow : 0,4 , at 25 °C (Method: OECD Test Guideline 117)

12.4. Mobility in soil - Distribution among environmental compartments:

Absorption / desorption:
log Koc: 1,9 (Method: OECD Test Guideline 121)

12.5. Results of PBT and vPvB assessment :

According to REACH regulation, annex XIII, the substance does not meet PBT and vPvB criteria.

12.6. Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment:

Disposal of product: Destroy the product by incineration (in accordance with local and national regulations).

Disposal of packaging: Destroy packaging by incineration at an approved waste disposal site (in accordance with local and national regulations).

14. TRANSPORT INFORMATION

Regulation	14.1. UN number	14.2. UN proper shipping name	14.3. Class*	Label	14.4. PG*	14.5. Environmental hazards	14.6. Special precautions for user
ADR	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,3-dihydro-4(or 5)-methyl-2Hbenzimidazole-2-thione)	9	9	III	yes	
ADN	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	9	9	III	yes	
RID	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,3-dihydro-4(or 5)-methyl-2Hbenzimidazole-2-thione)	9	9	III	yes	
IATA Cargo	3077	Environmentally hazardous substance, solid, n.o.s. (1,3-dihydro-4(or 5)-methyl-2Hbenzimidazole-2-thione)	9	9MI	III	yes	
IATA Passenger	3077	Environmentally hazardous substance, solid, n.o.s. (1,3-dihydro-4(or 5)-methyl-2Hbenzimidazole-2-thione)	9	9MI	III	yes	
IMDG	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,3-dihydro-4(or 5)-methyl-2Hbenzimidazole-2-thione)	9	9	III	Marine pollutant	EmS Number: F-A, S-F Mark: MP

*Description: 14.3. Transport hazard class(es)
14.4. Packing group

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

15. REGULATORY INFORMATION

Safety data sheets: accordance with Annex II of Regulation (EC) No 1907/2006 and its amendment(s)

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

15.2. Chemical Safety Assessment: None.

INVENTORIES:

AICS: Conforms to
EINECS: Conforms to
ENCS (JP): Conforms to
ISHL (JP): Conforms to
KECI (KR): Conforms to
PICCS (PH): Conforms to

16. OTHER INFORMATION

Full text of H, EUH-phrases referred to under sections 2 and 3

H302 Harmful if swallowed.
H332 Harmful if inhaled.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Thesaurus:

NOAEL : No Observed Adverse Effect Level (NOAEL)
LOAEL : Lowest Observed Adverse Effect Level (LOAEL)
bw : Body weight
food : oral feed
dw : Dry weight
vPvB : very Persistent and very Bioaccumulative
PBT : Persistent, Bioaccumulative and Toxic

This information applies to the PRODUCT AS SUCH and conforming to specifications of ARKEMA. In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear. The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely. Users are advised of possible additional hazards when the product is used in applications for which it was not intended. This sheet shall only be used and reproduced for prevention and security purposes. The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive. It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product. It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product (usage, storage, cleaning of containers, other processes) the totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.

NB: In this document the numerical separator of the thousands is the "." (point), the decimal separator is "," (comma).

