

SAFETY DATA SHEET

accordance with Annex II of Regulation (EC) No 1907/2006 and

its amendment(s)

Product:

EKALAND[™] TBzTD C

Page: 1 / 8

SDS No.: 100083-100 (Version 7.0)

Date 06.03.2020 (Cancel and replace : 26.08.2019)

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

1.1. Identification of the product

Identification of the mixture: EKALAND™ TBzTD C

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

Use of the Substance/Mixture :

| Sector of use : | Product category : |
|--|--|
| Manufacture of Tyres SU11: Manufacture of rubber products | |
| Manufacture of General Rubber Goods SU11: Manufacture of rubber products | PC32: Polymer preparations and compounds |
| Manufacture of Masterbatches SU11: Manufacture of rubber products | PC32: Polymer preparations and compounds |
| Formulation and (re)packing SU11: Manufacture of rubber products | PC32: Polymer preparations and compounds |

1.3. Details of the supplier of the safety data sheet

| Supplier | MLPC International 209, Avenue Charles Despiau F-40370 RION-DES-LANDES, FRANCE Telephone: + 33 (0) 5 58 57 02 00 E-mail address: http://www.mlpc-intl.com fds@mlpc-intl.com |
|------------------------------------|--|
| E-mail address : Exposure scenario | reachsubstance@mlpc-intl.com |

1.4. Emergency telephone number

+1-703-741-5970 CHEMTREC international emergency phone number (ARKEMA CCN830055)

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Chronic aquatic toxicity, 4, H413

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:

tetrakis(phenylmethyl)thioperoxydi(carbothioamide)

Hazard statements: H413 : May cause long lasting harmful effects to aquatic life.

Precautionary statements: **Prevention:** P273 : Avoid release to the environment. **Disposal:** P501 : Dispose of contents or 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, this mixture contains no substance meeting PBT and vPvB criteria.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Chemical nature of the mixture¹:

Mixture based on:

Hazardous components (accordance with Annex II of Regulation (EC) No 1907/2006 and its amendment(s)) :

| Chemical name ¹ & REACH Registration Number ² | EC-No. | CAS-No. | Concentration | Classification REGULATION (EC) No 1272/2008 |
|---|-----------|------------|---------------|--|
| tetrakis(phenylmethyl)thioperoxydi(carbothioamide) (01- 2119846995-18-0001) (N° ANNEX: 016-073-00-7) | 404-310-0 | 10591-85-2 | >= 98 % | Aquatic Chronic 4; H413 |
| Distillates (petroleum), hydrotreated light paraffinic (01- 2119487077-29) (N° ANNEX: 649-468-00-3) | 265-158-7 | 64742-55-8 | 1 - 2 % | Asp. Tox. 1; H304 Nota L: DMSO <3% |

¹: See chapter 14 for Proper Shipping Name

²:See the text of the regulation for applicable exceptions or provisions -

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.

All other extinguishants

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Water spray, Foam, Dry powder

Unsuitable extinguishing media:

5.2. Special hazards arising from the substance or mixture:

Thermal decomposition gives : Sulphur oxides, Carbon dioxide (CO2), Nitrogenous derivatives

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.

MLPC INTERNATIONAL

6. ACCIDENTAL RELEASE MEASURES

6.1. <u>Personal precautions, protective equipment and emergency procedures:</u> 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 (dust)

| Source | Date | Value type | Value (ppm) | Value (mg/m3) | Remarks |
|------------|---------|------------|----------------|------------------|-----------------------|
| ACGIH (US) | 02 2012 | TWA | - | 10 | Inhalable particles. |
| ACGIH (US) | 02 2012 | TWA | _ | 3 | Respirable particles. |

Exposure Limit Values

Not relevant

Derived No Effect Level (DNEL): TETRAKIS (PHENYLMETHYL) THIOPEROXYDI (CARBOTHIOAMIDE) :

No adverse effects have been observed at the highest recommended concentrations/doses tested, thus no DNELs were derived

Predicted No Effect Concentration: TETRAKIS(PHENYLMETHYL)THIOPEROXYDI(CARBOTHIOAMIDE) :

| Compartment: | Value: |
|------------------------|------------|
| Sewage treatment plant | 100 mg/l |
| Soil | 1 mg/kg dw |

8.2. Exposure controls: General protective measures:

Personal protective equipment:

Respiratory protection:

Hand protection: Eye/face protection: Skin and body protection: Ensure sufficient air exchange and/or exhaust in work areas

Effective dust mask Impervious gloves Tightly fitting safety goggles At the workplace : Protective suit.

MLPC INTERNATIONAL

Site de RION - 209, avenue Charles Despiau - 40370 RION-LES-LANDES - FRANCE

.

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: | Not relevant |
| pH: | Not relevant |
| Melting point/range : | > 125 °C (OECD Test Guideline 102) |
| Boiling point/boiling range : | 147 - 149 °C Decomposition (OECD Test Guideline 103) |
| Flash point: | No data available. |
| Evaporation rate: | No data available. |
| Flammability (solid, gas): | |
| Flammability: | Non flammable product (Method A10: Flammability (solids)) |
| Vapour pressure: | 0,86 Pa , at 20 °C (A4 Method (D. 92/69/ECC)) |
| Vapour density: | No data available. |
| Relative density: | No data available. |
| Water solubility: | < 10 µg/l at 21 °C (OECD Test Guideline 105) |
| Partition coefficient: n-octanol/water: | TETRAKIS(PHENYLMETHYL)THIOPEROXYDI(CARBOTHIOAMIDE) : |
| | log Kow : 3,7 , at 20 °C |
| Auto-ignition temperature: | No data available. |
| Decomposition temperature: | 147 °C (Rapid heat test) |
| Viscosity, dynamic: | Not applicable |
| Explosive properties: | |
| Explosivity: | Not explosive (A14 Method) |
| Oxidizing properties: | Not relevant (due to its chemical structure) |
| | |

9.2. Other data:

| Solubility in other solvents: | Acetone |
|-------------------------------|-----------|
| рКА: | None. |
| Molecular weight: | 544 g/mol |

10. STABILITY AND REACTIVITY

10.1. <u>Reactivity:</u> 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:

Decomposition temperature: 147 °C Thermal decomposition gives :, Nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

MLPC INTERNATIONAL

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.

11.1. Information on toxicological effects:

Acute toxicity:

| Addie toxicity. | |
|---|--|
| Inhalation: | According to its composition, can be considered as Little or not harmful by inhalation |
| TETRAKIS(PHENYLMETHYL)THIOP • In animals : | EROXYDI(CARBOTHIOAMIDE) : No mortality/4 h/Rat: 5 mg/l (Method: OECD Test Guideline 403) (Aerosol) |
| Ingestion: | According to its composition, can be considered as Slightly or not harmful by ingestion |
| TETRAKIS(PHENYLMETHYL)THIC • In animals : | DPEROXYDI(CARBOTHIOAMIDE) : No mortality/Rat: 5.000 mg/kg (Method: Directive 67/548/EEC, Annex V, B.1.) |
| Dermal: | Based on the available information, it is not possible to conclude on the hasard potential of this mixture. |
| Local effects (Corrosion / Irritation / S | Serious eye damage): |
| Skin contact: | According to its composition, can be considered as Non irritating to skin |
| TETRAKIS(PHENYLMETHYL)THIOP • In animals : | EROXYDI(CARBOTHIOAMIDE) : No skin irritation (Directive 67/548/EEC, Annex V, B.4., Rabbit) |
| Eye contact: | According to its composition, can be considered as Not irritating to the eyes. |
| TETRAKIS(PHENYLMETHYL)THIOP • In animals : | EROXYDI(CARBOTHIOAMIDE) : Slightly irritating to eyes (Directive 67/548/EEC, Annex V, B.5., Rabbit) |
| Respiratory or skin sensitisation: | |
| Inhalation: | No data available. |
| Skin contact: | According to its composition, can be considered as Not a skin sensitizer |
| TETRAKIS(PHENYLMETHYL)THIOP • In animals : | EROXYDI(CARBOTHIOAMIDE) : No effect is reported. (Method: Similar to OECD Guideline 406 Guinea pig maximization test) |
| CMR effects : | |
| Mutagenicity: | Results from in vitro and in vivo tests do not lead to considering the product as genotoxic |
| In vitro | |
| TETRAKIS(PHENYLMETHYL)THIOP | EROXYDI(CARBOTHIOAMIDE) : Ames test in vitro: Inactive (Method: OECD Test Guideline 471) Chromosome aberration test in vitro: Inactive (Method: OECD Test Guideline 473) |
| In vivo | |
| TETRAKIS(PHENYLMETHYL)THIOP | EROXYDI(CARBOTHIOAMIDE) : Micronucleus test in vivo mouse: Inactive (Method: OECD Test Guideline 474) |
| Carcinogenicity: | No data available. |
| Reproductive toxicity: | |
| Fertility: | Based on the available data, the substance is not suspected of having reprotoxic potential. |
| TETRAKIS(PHENYLMETHYL)THIC • In animals : | DPEROXYDI(CARBOTHIOAMIDE) : Absence of toxic effects upon the reproductive system NOAEL (Parental toxicity): 1.000 mg/kg bw/day NOAEL (Fertility): 1.000 mg/kg bw/day NOAEL (Developmental Toxicity): 1000 mg/kg bw/day (Method: OECD Test Guideline 415, Rat, By oral route) |
| Specific target organ toxicity : Single exposure : | No data available. |
| | The substance or mixture is not classified as specific target organ toxicant, repeated exposure. |
| Repeated exposure: TETRAKIS(PHENYLMETHYL)THIOP | |
| • In animals : | By oral route: No effect is reported. 1000 mg/kg (Method: OECD Test Guideline 407, Rat) |
| | |

EKALAND™ TBzTD C

| SDS No.: 100083-100 (Version 7.0) | Date 06.03.2020 (Cancel and replace : 26.08.2019 |
|---|--|
| Aspiration hazard: | Not relevant |
| 2. ECOLOGICAL INFORMATION | |
| Ecotoxicology Assessment: | All available and relevant 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. |
| | Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life. |
| 2.1. Acute toxicity : | |
| Fish: | No effect up to the limit of solubility |
| TETRAKIS(PHENYLMETHYL)THIO | PEROXYDI(CARBOTHIOAMIDE) : 96 h (Poecilia reticulata (guppy)) (Method: OECD Test Guideline 203) No effect up to the limit of solubility |
| Aquatic invertebrates: | No effect up to the limit of solubility |
| TETRAKIS(PHENYLMETHYL)THIO | PEROXYDI(CARBOTHIOAMIDE) : 48 h (Daphnia magna (Water flea)) (Method: OECD Test Guideline 202, Immobilization) No effect up to the limit of solubility |
| Aquatic plants: | No effect up to the limit of solubility |
| TETRAKIS(PHENYLMETHYL)THIO | PEROXYDI(CARBOTHIOAMIDE) : 96 h (Desmodesmus subspicatus (green algae)) (Method: OECD Test Guideline 201, growth rate inhibition) No effect up to the limit of solubility |
| Microorganisms: | |
| TETRAKIS(PHENYLMETHYL)THIO | PEROXYDI(CARBOTHIOAMIDE) : EC50, 3 h (Activated sludge) : > 1.000 mg/l (Respiration inhibition of activated sludge) |
| Aquatic toxicity / Long term toxicity | |
| Aquatic invertebrates: | |
| TETRAKIS(PHENYLMETHYL)THIO | PEROXYDI(CARBOTHIOAMIDE) : 21 d (Daphnia magna (Water flea)) (Method: OECD Test Guideline 211, Growth inhibition/Reproduction inhibition) No effect up to the limit of solubility |
| Aquatic plants: | |
| TETRAKIS(PHENYLMETHYL)THIO | PEROXYDI(CARBOTHIOAMIDE) : 96 h (Desmodesmus subspicatus (green algae)) (Method: OECD Test Guideline 201, growth rate inhibition) No effect up to the limit of solubility |
| Non aquatic toxicity / Acute toxicity | <u>.</u> |
| Toxicity to soil dwelling organisms: | |
| TETRAKIS(PHENYLMETHYL)THIO | PEROXYDI(CARBOTHIOAMIDE) : LC50, 14 d (Eisenia fetida (earthworms)) : > 1.049 mg/kg (Soil dw) (Method: OECD Test Guideline 207, mortality) |
| Terrestrial plants: | |
| TETRAKIS(PHENYLMETHYL)THIO | PEROXYDI(CARBOTHIOAMIDE) : NOEC, 14 d (Avena sativa (oats)) : 1.350 mg/kg (Method: OECD Test Guideline 208, Growth inhibition) |
| 2.2. Persistence and degradability | |
| Biodegradation (In water): | Not readily biodegradable. |
| TETRAKIS(PHENYLMETHYL)THIO | PEROXYDI(CARBOTHIOAMIDE) : Not readily biodegradable.: 2 % after 28 d |
| 2.3. Bioaccumulative potential : | |
| | |
| | |

MLPC INTERNATIONAL

| Product: | PageEKALAND™ TBzTD CPage: 7 / 8 |
|---|---|
| SDS No.: 100083-100 (Version 7.0) | Date 06.03.2020 (Cancel and replace : 26.08.2019) |
| Bioaccumulation: | Slightly bioaccumulable. |
| TETRAKIS(PHENYLMETHYL)THI | OPEROXYDI(CARBOTHIOAMIDE) : Partition coefficient: n-octanol/water: log Kow : 3,7 , at 20 °C |
| TETRAKIS(PHENYLMETHYL)THI | DPEROXYDI(CARBOTHIOAMIDE) : Bioconcentration factor (BCF): 131 (28 d, Cyprinus carpio (Carp) |
| 12.4. Mobility in soil - Distribution a | mong environmental compartments: |
| Vapor pressure: | 0,86 Pa, 20 °C, (Method: A4 Method (D. 92/69/ECC)) |
| Absorption / desorption: TETRAKIS(PHENYLMETHYL)THM | DPEROXYDI(CARBOTHIOAMIDE) : Soil: log Koc: 7,5 |
| 12.5. <u>Results of PBT and vPvB ass</u> According to REACH regulation, anne | essment : •x XIII, this mixture contains no substance meeting PBT and vPvB criteria. |
| 12.6. Other adverse effects: None k | nown. |
| 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

Not classified as dangerous in the meaning of transport regulations.

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:

Listed in:

EU. REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC): Distillates (petroleum), hydrotreated light paraffinic;
Baseoil — unspecified; [A complex combination of hydrocarbons obtained by tr
EU. REACH, Annex XVII, Appendix 2, Entry 28 - Carcinogens: Category 1B (Table 3). (Regulation 1907/2006/EC): Distillates (petroleum), hydrotreated light paraffinic; Baseoil — unspecified; [A complex combination of hydrocarbons obtained by tr

15.2. Chemical safety assessment:

A Chemical Safety Assessment has been carried out for this substance.

INVENTORIES:

| EINECS: | The product contains ELINCS substances. |
|-------------|--|
| TSCA: | Conforms to |
| DSL: | All components of this product are on the Canadian DSL |
| IECSC (CN): | Conforms to |
| ENCS (JP): | Conforms to |
| ISHL (JP): | Conforms to |
| KECI (KR): | Conforms to |
| PICCS (PH): | Conforms to |
| AICS: | Conforms to |
| NZIOC: | Conforms to |
| | |

16. OTHER INFORMATION

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

| H304 | May be fatal if swallowed and enters airways. |
|------|---|
| H413 | May cause long lasting harmful effects to aquatic life. |

```
MLPC INTERNATIONAL
```

Update:

| Safety datasheet sections which have been updated: Type: | | Туре: |
|--|---|-----------|
| Exposu | one or more exposure scenario have been changed: see dates and versions | Additions |
| re | | |
| scenari | | |
| 0 | | |

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).