

SAFETY DATA SHEET

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

Product:

EKALAND™ DETU CR

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SDS No.: 100008-100 (Version 5.0)

Date 10.01.2020 (Cancel and replace : 04.09.2019)

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

1.1. Identification of the product

Substance name: EKALAND™ DETU CR
 REACH Registration Number: 01-2119974271-37-0000
 EC Nr: 203-308-5
 CAS-No.: 105-55-5

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

Use of the Substance/Mixture :

Sector of use :	Product category :
Formulation and (re)packing	PC32: Polymer preparations and compounds
Manufacture of Masterbatches SU 10: Formulation	PC32: Polymer preparations and compounds
Manufacture of General Rubber Goods SU11: Manufacture of rubber products	PC32: Polymer preparations and compounds
Manufacture of Tyres SU11: Manufacture of rubber products	PC32: Polymer preparations and compounds
Anticorrosive preparation SU14: Manufacture of basic metals, including alloys	PC9a: Coatings and paints, thinners, paint removers
Anti-corrosion paint application SU14: Manufacture of basic metals, including alloys	PC0: Corrosion inhibitor

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):

Oral: Acute toxicity, 4, H302
 Acute toxicity, 4, H312
 Eye irritation, 1, H318
 Skin sensitisation, 1B, H317
 Oral: Specific target organ toxicity - repeated exposure, 1, Thyroid gland, H372
 Chronic aquatic toxicity, 3, H412

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. : 105-55-5

1,3-Diethyl-2-thiourea

Hazard
pictograms:

Signal word:

Danger

Hazard statements:

- H302 : Harmful if swallowed.
 H312 : Harmful in contact with skin.
 H318 : Causes serious eye damage.
 H317 : May cause an allergic skin reaction.
 H372 : Causes damage to organs through prolonged or repeated exposure.
 H412 : Harmful to aquatic life with long lasting effects.

Precautionary statements:

- P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 : Immediately call a POISON CENTER/doctor.
 P333 + P313 : If skin irritation or rash occurs: Get medical advice/ attention.
 P273 : Avoid release to the environment.

Prevention:

- P280 : Wear protective gloves and protective clothing and eye protection and face protection.
 P261 : Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

Disposal:

- P501 : Dispose of contents and container to an approved incineration 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-Diethyl-2-thiourea	203-308-5	105-55-5	98 - 100 %	Acute Tox.4 (Oral); H302 Acute Tox.4 (Dermal); H312 Eye Dam.1; H318 Skin Sens.1; H317 STOT RE1 (Oral); H372 Aquatic Chronic3; H412

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 : Temperature exceeding 280 °C:
Sulphur oxides, Nitrogen oxides (NOx)

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):

End Use	Inhalation	Ingestion	Skin contact
Workers	0,14 mg/m3 (LT, SE)		2,08 mg/kg (LT, SE)
Consumers	0,04 mg/m3 (LT, SE)	0,02 mg/kg (LT, SE)	1,04 mg/kg (LT, SE)

LE : Local effects, **SE** : Systemic effects, **LT** : Long term, **ST** : Short term

Predicted No Effect Concentration: 1,3-DIETHYL-2-THIOUREA :

Compartment:	Value:
Fresh water	0,033 mg/l
Marine water	0,0033 mg/l
Water (Intermittent release)	0,560 mg/l
Effects on waste water treatment plants	0,2 mg/l
Fresh water sediment	0,25 mg/kg dw
Marine sediment	0,025 mg/kg dw
Soil	0,03 mg/kg dw

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: crystalline
Colour: white
Odour: very faint
Olfactory threshold: No data available.
pH: Not applicable
Melting point/range : 76 - 80 °C (OECD Test Guideline 102)
Boiling range : 215 °C (OECD Test Guideline 103)
Flash point: Not relevant
Evaporation rate: No data available.
Flammability (solid, gas):
 Flammability: Non flammable product (Method A10: Flammability (solids))
Vapour pressure: 0,00065 Pa , at 25 °C (A4 Method (D. 92/69/ECC))
Vapour density: No data available.
Density: 1 g/cm3 , at 20 °C Molten form
Bulk density: Average 0,77 kg/m3 , at 20 °C
Water solubility: 42 g/l at 25 °C (OECD Test Guideline 105)
Partition coefficient: n-octanol/water: log Kow : 0,57 , at 20 °C
Partition coefficient: n-octanol/water: 1,3-DIETHYL-2-THIOUREA :
 log Kow : 0,57 (OECD Test Guideline 107)
Auto-ignition temperature: No data available.
Decomposition temperature: approx. 243 °C (A2 Method (D. 92/69/ECC))
Viscosity, kinematic: Not applicable
Explosive properties:
 Explosivity: Not relevant (due to its chemical structure)

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Oxidizing properties: Not relevant (due to its chemical structure)

9.2. Other data:

Solubility in other solvents: Soluble in: , Methanol , Ether , Acetone
Surface tension: 76,1 mN/m at 21,5 °C / 1.000 mg/l (OECD Test Guideline 115)
pKA: None.
Molecular weight: 132 g/mol (Literature)

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:
Oxidizing agents, Strong acids

10.6. Hazardous decomposition products:

Thermal decomposition:
Decomposition temperature: approx. 243 °C
Sulphur oxides, Nitrogen oxides (NOx), Carbon dioxide (CO2)
Thermal decomposition gives: , Nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:

Acute toxicity:

Ingestion: **Harmful if swallowed.**
LD50/Mouse: = 930 mg/kg

Dermal: **Harmful in contact with skin.**
• In animals : LD50/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 (OECD Test Guideline 404, Rabbit, Exposure time: 4 h)

Eye contact: **Risk of serious damage to eyes.**
• In animals : Very irritating. (OECD Test Guideline 405, Rabbit)

Respiratory or skin sensitisation:

Inhalation: No data available.

Skin contact: **Weak skin sensitizer**
• In man : Proven human sensitizer
• In animals : Slight sensitizer to guinea-pigs (Method: LLNA: Local Lymph Node Assay, Mouse)

CMR effects :

Mutagenicity: **According to available experimental data: Overall not genotoxic**

In vitro
Ames test in vitro: Inactive
In vitro test for chromosomal abnormalities on CHO cells: Inactive
In vitro gene mutations test on mammalian cells: Active

In vivo
Micronucleus test in vivo rat: Inactive (Method: OECD Test Guideline 474)
Comet assay: Active

Carcinogenicity: **According to available experimental data:**

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- In animals : The tumorigenes effects on the thyroid observed in strong amounts in the rat are considered not to be extrapolated to humans. (Rat, 2 years, By diet)
Absence of carcinogenic effects (Mouse, 2 years, By diet)

Reproductive toxicity:

Foetal development: According to available experimental data:

Specific target organ toxicity :
Single exposure :

Inhalation:

At high concentrations , Dust inhalation:, Possible irritation of respiratory system

Repeated exposure:

Exposure routes : Ingestion
Target Organs : Thyroid gland

- In animals :

Oral: Danger of serious damage to health by prolonged exposure.
Target organs: Thyroid gland, NOAEL= < 6,25 mg/kg (Rat, Repeated exposure)

Aspiration hazard:

Not relevant

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 : Harmful to aquatic life.

12.1. Acute toxicity :

Fish:

Slightly harmful to fish

1,3-DIETHYL-2-THIOUREA :

LC50, 96 h (Brachydanio rerio) : 910 mg/l (Method: OECD Test Guideline 203)

Aquatic invertebrates:

Harmful to daphnia.

1,3-DIETHYL-2-THIOUREA :

EC50, 48 h (Daphnia magna (Water flea)) : 56 mg/l (Method: OECD Test Guideline 202)

Aquatic plants:

Slightly harmful to algae

1,3-DIETHYL-2-THIOUREA :

ErC50, 72 h (Pseudokirchneriella subcapitata (green algae)) : 310 mg/l (Method: OECD Test Guideline 201)

Microorganisms:

1,3-DIETHYL-2-THIOUREA :

NOEC, 28 d (Activated sludge) : 2 mg/l

Aquatic toxicity / Long term toxicity:

Aquatic invertebrates:

1,3-DIETHYL-2-THIOUREA :

EC10, 21 d (Daphnia magna (Water flea)) : 1,67 mg/l (Method: OECD Test Guideline 211, Reproduction inhibition)

Aquatic plants:

1,3-DIETHYL-2-THIOUREA :

NOEC r, 72 h (Pseudokirchneriella subcapitata (green algae)) : 73 mg/l (Method: OECD Test Guideline 201)

12.2. Persistence and degradability :

Stability in water:

Not hydrolysable

Biodegradation (In water):

Not readily biodegradable.

1,3-DIETHYL-2-THIOUREA :

Not readily biodegradable.: 3 % after 28 d (Method: OECD Test Guideline 301 D)

12.3. Bioaccumulative potential :

Bioaccumulation:

Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water: log Kow : 0,57 , at 20 °C

1,3-DIETHYL-2-THIOUREA :

Partition coefficient: n-octanol/water: log Kow : 0,57 (Method: OECD Test Guideline 107)

12.4. Mobility in soil - Distribution among environmental compartments:

Vapor pressure:

0,00065 Pa, 25 °C, (Method: A4 Method (D. 92/69/ECC))

Surface tension:

76,1 mN/m 21,5 °C /1.000 mg/l (Method: OECD Test Guideline 115)

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).
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).

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:

15.2. Chemical safety assessment:

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

INVENTORIES:

EINECS:	Conforms to
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

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

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Update:

Safety datasheet sections which have been updated:		Type:
1	1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING, Emergency telephone number	Revisions
8	8. EXPOSURE CONTROLS/PERSONAL PROTECTION	Revisions
15	15. REGULATORY INFORMATION	Additions
Exposure scenario	one or more exposure scenario have been changed: see dates and versions	Additions

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).