

SAFETY DATA SHEET

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

Product: **EKALAND™ ETU C**

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SDS No.: 100022-100 (Version 8.0)

Date 09.07.2021 (Cancel and replace : 10.06.2021)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Identification of the mixture: EKALAND™ ETU 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 General Rubber Goods SU11: Manufacture of rubber products	PC0: Cross-linking agent, PC19: Intermediate
Manufacture of Masterbatches SU 10: Formulation	PC19: Intermediate
Formulation and (re)packing SU 10: Formulation	PC19: Intermediate

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)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Oral: Acute toxicity, 4, H302
Reproductive toxicity, 1B, H360D
Target Organ Systemic Toxicant - Repeated exposure, 1, Thyroid gland, H372
Carcinogenicity, 2, H351

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:

ethylene thiourea; imidazolidine-2-thione; 2-imidazoline-2-thiol

Hazard pictograms:



Signal word:

Danger

Hazard statements:

H302 : Harmful if swallowed.
H360D : May damage the unborn child.
H372 : Causes damage to organs through prolonged or repeated exposure.
H351 : Suspected of causing cancer.

Precautionary statements:

Prevention:

P201 : Obtain special instructions before use.
P281 : Use personal protective equipment as required.

Response:

P312 : Call a POISON CENTER/doctor if you feel unwell.
P308 + P313 : IF exposed or concerned: Get medical advice/ attention.

Disposal:

P501 : Dispose of contents and container to an approved incineration plant.

Additional information: Rubber accelerator

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.

SECTION 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	specific concentration limit, M-Factors, Acute toxicity estimate
Imidazolidine-2-thione (01-2119541697-28) (N° ANNEX: 613-039-00-9)	202-506-9	96-45-7	98 - 99 %	Acute Tox.4 (Oral); H302 Repr.1B; H360D STOT RE1; H372 Carc.2; H351	
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 -

SECTION 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 and effects, both acute and delayed: No data available.**4.3. Indication of any immediate medical attention and special treatment needed:** No data available.**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media**

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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.

SECTION 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.

SECTION 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.**SECTION 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)	03 2014	TWA	–	3	Respirable particles.
ACGIH (US)	03 2014	TWA	–	10	Inhalable particles.

Exposure Limit Values**Distillates (petroleum), hydrotreated light paraffinic**

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
EU OELIII	01 2019	SKIN	–	–	Can be absorbed through the skin.
ACGIH (US)	02 2012		–	–	Exposure by all routes should be carefully controlled to levels as low as possible.
ACGIH (US)	02 2012		–	–	Included in the regulation but with no data values. See regulation for further details.
ACGIH (US)	02 2012	TWA	–	5	Inhalable fraction.

Derived No Effect Level (DNEL): IMIDAZOLIDINE-2-THIONE :

End Use	Inhalation	Ingestion	Skin contact
Workers	0,07 mg/m3 (LT, SE)		1,7 mg/kg (LT, SE)
Consumers	0,01 mg/m3 (LT, SE)	0,0085 mg/kg (LT, SE)	0,85 mg/kg (LT, SE)

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

Predicted No Effect Concentration: IMIDAZOLIDINE-2-THIONE :

Compartment:	Value:
Fresh water	0,32 mg/l
Marine water	0,032 mg/l
Water (Intermittent release)	0,264 mg/l
Effects on waste water treatment plants	10 mg/l
Fresh water sediment	1,57 mg/kg dw
Marine sediment	0,157 mg/kg dw
Soil	0,126 mg/kg dw
Oral (Secondary Poisoning)	1,13 mg/kg bw/day

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties****Appearance:**

Physical state (20°C):	solid
Form:	powder
Colour:	white
Odour:	characteristic
Odour Threshold:	No data available.
Melting point/range :	199 °C (OECD Test Guideline 102)

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Boiling point/boiling range:	No data available.
Flammability:	
Flammability (solid, gas):	Non flammable product (Standard A10)
Lower explosion limit :	No data available
Upper explosion limit :	No data available
Flash point:	Not applicable
Auto-ignition temperature:	Not applicable
Decomposition temperature:	240 °C
pH:	Not applicable
Viscosity:	No data available.
Water solubility:	27,4 g/l at 20 °C (OECD Test Guideline 105)
Solubility in other solvents:	Chloroform Soluble in:
Partition coefficient: n-octanol/water:	IMIDAZOLIDINE-2-THIONE : log Kow : -0,67 , at 20 °C (OECD Test Guideline 107)
Vapour pressure:	< 1,33 hPa , at 25 °C (OECD Test Guideline 104)
Density:	1,36 g/cm ³ , at 20 °C
Vapour density:	No data available.
Particle size:	D50 : 0,026 mm D10 : 0,010 mm D90 : 0,045 mm

9.2. Other information:

Surface tension:	65,7 mN/m at 23 °C
pKA:	None.
Molecular weight:	102 g/mol
Explosive properties:	
Explosivity:	Not explosive, Not relevant (due to its chemical structure)
Self-reactive substances and mixtures:	240 °C

SECTION 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:
Acids

10.6. Hazardous decomposition products:

Thermal decomposition:
Decomposition temperature: 240 °C
Thermal decomposition gives :, Nitrogen oxides (NOx)

SECTION 11: TOXICOLOGICAL INFORMATION

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.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Acute toxicity:

Inhalation:

Inhalation of vapours due to thermal decomposition:; Risk of irritation of respiratory system, Toxic effects cannot be excluded

Ingestion: **From its composition, it must be considered as: Harmful if swallowed.**

IMIDAZOLIDINE-2-THIONE :
• In animals : LD50/Rat: 940 mg/kg

Dermal: **According to its composition, can be considered as Slightly harmful in contact with skin.**

IMIDAZOLIDINE-2-THIONE :
• In animals : No mortality/Rat: 2 g/kg (Method: OECD Test Guideline 402), No specific toxic effects

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

Skin contact: **According to its composition, can be considered as Non irritating to skin**

IMIDAZOLIDINE-2-THIONE :
• In animals : No skin irritation (OECD Test Guideline 404, Rabbit)

Eye contact: **According to its composition, can be considered as Not irritating to the eyes.**

IMIDAZOLIDINE-2-THIONE :
• In animals : No eye irritation (OECD Test Guideline 405, Rabbit)

Respiratory or skin sensitisation:

Inhalation: No data available.

Skin contact: **According to its composition, can be considered as Not a skin sensitizer**

IMIDAZOLIDINE-2-THIONE :
• In man : Some cases of cutaneous sensitization reported, Possible cross sensitization with dithiocarbamates
• In animals : No skin allergy was observed. (Method: Mouse ear swelling assay)

CMR effects :

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

In vitro

IMIDAZOLIDINE-2-THIONE :
Ames test in vitro: Overall not genotoxic (Method: OECD Test Guideline 471)
Chromosome aberration test in vitro: Inactive (Method: OECD Test Guideline 473)
In vitro gene mutations test on mammalian cells: Active (Method: OECD Test Guideline 476)
DNA repair test on rats hepatocytes: Inactive

In vivo

IMIDAZOLIDINE-2-THIONE :
In vivo micronucleus test: Inactive
unscheduled DNA synthesis assay: Inactive

Carcinogenicity: **According to its composition : Suspected of causing cancer.**

IMIDAZOLIDINE-2-THIONE :
• In animals : Carcinogenic effects shown experimentally in animals
Target organs: Thyroid gland (Rat, 2 years, By oral route)

Reproductive toxicity:

Foetal development: **According to its composition : May damage the unborn child.**

IMIDAZOLIDINE-2-THIONE :
• In animals : Exposure during pregnancy: Teratogenic effects
(By oral route)
NOAEL (Developmental Toxicity): 5 mg/kg bw/day
NOAEL (Maternal Toxicity): 40 mg/kg bw/day
(Rat)
NOAEL (Developmental Toxicity): 100 mg/kg bw/day
NOAEL (Maternal Toxicity): < 100 mg/kg bw/day
(Mouse)

Specific target organ toxicity :

Single exposure :

Inhalation: **Dust inhalation: Possible irritation of respiratory system**

Repeated exposure:

The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

Target Organs : Thyroid gland

IMIDAZOLIDINE-2-THIONE :

• In animals :

By oral route: Target organs: Thyroid gland, NOAEL= 1,7 mg/kg (Method: OECD Test Guideline 408, Rat, 3 months)

By inhalation: Target organs: Thyroid gland, NOAEL= 0,01 mg/l (Method: OECD Test Guideline 412, Rat, 28 d)

Aspiration hazard:

Not applicable

11.2. Information on other hazards:

Not relevant

Endocrine disrupting properties:

None known.

Other information:

Not relevant

SECTION 12: 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.

Acute aquatic toxicity : Harmful to aquatic life.

12.1. Toxicity :

Fish:

From its composition, it must be considered as: Slightly harmful to fish

IMIDAZOLIDINE-2-THIONE :

LC50, 96 h (Poecilia reticulata (guppy)) : 7.500 mg/l (Method: OECD Test Guideline 203)

Aquatic invertebrates:

From its composition, it must be considered as: Harmful to daphnia.

IMIDAZOLIDINE-2-THIONE :

LC50, 48 h (Daphnia magna (Water flea)) : 26 mg/l (Method: OECD Test Guideline 202, Immobilization)

Aquatic plants:

From its composition, it must be considered as: Slightly harmful to algae

IMIDAZOLIDINE-2-THIONE :

72 h (Pseudokirchneriella subcapitata (green algae)) : > 100 mg/l (Method: OECD Test Guideline 201, growth rate inhibition)

Microorganisms:

IMIDAZOLIDINE-2-THIONE :

EC50, 3 h (Activated sludge) : > 100 mg/l (Method: OECD Test Guideline 209, Respiration inhibition of activated sludge)

Aquatic toxicity / Long term toxicity:

Aquatic invertebrates:

IMIDAZOLIDINE-2-THIONE :

NOEC, 21 d (Daphnia magna (Water flea)) : 3,2 mg/l (Method: OECD Test Guideline 211, Reproduction inhibition)

Aquatic plants:

IMIDAZOLIDINE-2-THIONE :

NOEC r, 72 h (Pseudokirchneriella subcapitata (green algae)) : 100 mg/l (Method: OECD Test Guideline 201, growth rate inhibition)

12.2. Persistence and degradability :

In water:

Not hydrolysable

Biodegradation (In water):

From its composition, it must be considered as: Not readily biodegradable.

IMIDAZOLIDINE-2-THIONE :

Not readily biodegradable.: 0 % after 28 d (Method: OECD Test Guideline 301 F)

12.3. Bioaccumulative potential :

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Bioaccumulation: Based on the available information, it is not possible to conclude on the bioaccumulation potential of this mixture.

IMIDAZOLIDINE-2-THIONE :

Partition coefficient: n-octanol/water: log Kow : -0,67 , at 20 °C (Method: OECD Test Guideline 107)

12.4. Mobility in soil - Distribution among environmental compartments:

Vapor pressure: < 1,33 hPa, 25 °C, (Method: OECD Test Guideline 104)
Surface tension: 65,7 mN/m 23 °C

12.5. Results of PBT and vPvB assessment :

According to REACH regulation, annex XIII, this mixture contains no substance meeting PBT and vPvB criteria.

12.6. Endocrine disrupting properties: None known.

12.7. Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

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).

SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 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): ethylene thiourea; imidazolidine-2-thione; 2-imidazoline-2-thiol; Distillates (petroleum), hydrotreated light paraffinic; Baseoil — unspecified [complex combination of hydrocarbons obtained by trea

EU. REACH, Annex XVII, Appendix 1, Entry 28 - Carcinogens: Category 1B (CLP Table 3 of Anx VI). (Reg. 1907/2006/EC): Distillates (petroleum), hydrotreated light paraffinic; Baseoil — unspecified [complex combination of hydrocarbons obtained by trea

EU. REACH, Annex XVII, Appendix 6, Entry 30 - Toxic to reproduction: Category 1B (Table 3). (Regulation 1907/2006/EC): ethylene thiourea; imidazolidine-2-thione; 2-imidazoline-2-thiol

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59): ethylene thiourea; imidazolidine-2-thione; 2-imidazoline-2-thiol

15.2. Chemical safety assessment:

A Chemical Safety Assessment has been carried out for this substance. (Imidazolidine-2-thione)

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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
TSCA 12B:

SECTION 16: OTHER INFORMATION

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

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H351 Suspected of causing cancer.
H360D May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.

Update:

Safety datasheet sections which have been updated:		Type:
1	SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING	Revisions
3	SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS	Revisions
15	SECTION 15: REGULATORY INFORMATION	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).

