

Product: **Mixland+ ETU 75-80 BA/GA**

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SDS No.: 100060-100 (Version 2.5)

Date 26.05.2016 (*Cancel and replace* : 20.02.2015)

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

1.1. Identification of the product

Identification of the mixture: Mixland+ ETU 75-80 BA/GA

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

1.3. Details of the supplier of the safety data sheet

Supplier

MLPC International
209, Avenue Charles Despiau
F-40370 RION-DES-LANDES
FRANCE
Tel. + 33 (0) 5 58 57 02 00
<http://www.mlpc-intl.com>
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
Reproductive toxicity, 1B, H360
Oral: Specific target organ toxicity - repeated exposure, 1, Thyroid gland, H372
Carcinogenicity, 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.
H360 : May damage fertility or 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/ container to an approved incineration 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: Polymer and

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
Imidazolidine-2-thione (01-2119541697-28) (N° ANNEX: 613-039-00-9)	202-506-9	96-45-7	75 - 80%	Acute Tox. 4 (Oral); H302 Repr. 1B; H360D STOT RE 1; H372 Carc. 2; H351
Distillates (petroleum), hydrotreated light paraffinic (01-2119487077-29) (N° ANNEX: 649-468-00-3)	265-158-7	64742-55-8	10 - 12%	AH 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 : The transition time according to REACH Regulation, Article 23, is still not expired.

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

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. Consult a physician.

Skin contact:

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Eye contact:

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

Ingestion:

Call a physician immediately. Do not induce vomiting without medical advice. Rinse mouth.

Protection of first-aiders:

If entering a saturated atmosphere, wear a self contained breathing apparatus.

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 : Nitrogen oxides (NOx), Sulphur oxides, Carbon oxides

5.3. Advice for firefighters:

Specific methods:

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

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:

Dispose of as hazardous waste in compliance 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 showers, eye-baths.

Safe handling advice:

In case of dust formation, wear a dust mask. Avoid static electricity build up with connection to earth.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin and the eyes. Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities:

Store protected from moisture and heat. Protect from light. Keep away from direct sunlight.

Incompatible products:

Strong acids, Oxidizing agents

Packaging material:

Recommended: Cardboard lined with polyethylene liner, Paper bags lined with polyethylene

7.3. **Specific end use(s):** None.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. **Control parameters:**

Exposure Limit Values

Distillates (petroleum), hydrotreated light paraffinic

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
EU SCOELS	2014	TWA	–	5	8 hours Inhalable
EU SCOELS	2014		–	–	Inhalable Listed
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.

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: No data available.

8.2. **Exposure controls:**

General protective measures: Ensure sufficient air exchange and/or exhaust in work areas
Appropriate engineering controls: Provide appropriate exhaust ventilation at machinery.

Personal protective equipment:
Respiratory protection: Effective dust mask
Hand protection: Impervious gloves
Eye/face protection: Tightly fitting safety goggles
Skin and body protection: 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: granules, or, roll
Colour: white
Odour: characteristic
Olfactory threshold: No data available.
pH: Not applicable
Melting point/range : 199 °C (OECD Test Guideline 102)
Boiling point/boiling range: No data available.
Flash point: Not applicable
Evaporation rate: No data available.
Flammability (solid, gas):
Flammability: Non flammable product (Standard A10)
Lower flammable limit : No data available
Upper flammable limit : No data available
Vapour pressure: < 1,33 hPa , at 25 °C Active ingredient (OECD Test Guideline 104)
Vapour density: No data available.
Density: 1,27 g/cm3 , at 20 °C

Water solubility:	27,4 g/l Active ingredient at 20 °C (OECD Test Guideline 105)
Partition coefficient: n-octanol/water:	IMIDAZOLIDINE-2-THIONE : log Kow : -0,67 , at 20 °C (OECD Test Guideline 107)
Auto-ignition temperature:	Not applicable
Decomposition temperature:	240 °C
Viscosity:	No data available.
Explosive properties:	
Explosivity:	Not explosive, Not relevant (due to the chemical structure)
Oxidizing properties:	No data available.

9.2. Other data:

Solubility in other solvents:	Alcohols , Acetone , Chloroform Active ingredient, Soluble in:
Surface tension:	65,7 mN/m at 23 °C Active ingredient
pKA:	None.
Molecular weight:	Active ingredient 102 g/mol Active ingredient

10. STABILITY AND REACTIVITY

10.1. Reactivity: No data available.

10.2. Chemical stability:
The product is stable under normal handling and storage conditions.

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:
Strong acids and strong bases

10.6. Hazardous decomposition products:
Thermal decomposition:
Decomposition temperature: 240 °C
Nitrogen oxides (NOx), Carbon dioxide (CO₂), Sulphur oxides

11. TOXICOLOGICAL INFORMATION

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:

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

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
• In animals : No mortality/4 h/Rat: 5,53 mg/l (Method: OECD Test Guideline 403) (Aerosol)

Ingestion: According to its composition, can be considered as : Harmful if swallowed.

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

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
• In animals : No mortality/Rat: 5.000 mg/kg (Method: OECD Test Guideline 401)

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

IMIDAZOLIDINE-2-THIONE :
• In animals : LD50/Rat: > 2.000 mg/kg (Method: OECD Test Guideline 402)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
• In animals : No mortality/Rabbit: 5.000 mg/kg (Method: OECD Test Guideline 402)

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

Skin contact: According to EU classification criteria, this product/mixture is not classified as irritant.

IMIDAZOLIDINE-2-THIONE :

- In animals : No skin irritation (OECD Test Guideline 404, Rabbit)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

- In animals : Slightly irritating to skin. (Rabbit, Exposure time: 24 h)

Eye contact:

According to EU classification criteria, this product/mixture is not classified as irritant.

IMIDAZOLIDINE-2-THIONE :

- In animals : Mild eye irritation (OECD Test Guideline 405, Rabbit)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

- In animals : No eye irritation (OECD Test Guideline 405, Rabbit)

Respiratory or skin sensitisation:**Inhalation:**

No data available.

Skin contact:

According to EU classification criteria, this product/mixture is not classified as skin sensitizer.

IMIDAZOLIDINE-2-THIONE :

- In man : Some cases of cutaneous sensitization reported
- In animals : Not a skin sensitizer (Mouse)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

- In animals : Not a skin sensitizer (Method : OECD Test Guideline 406 Guinea pig maximization test)

CMR effects :**Mutagenicity:**

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

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

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

Ames test in vitro: Inactive (Method: OECD Test Guideline 471)
In vitro test for chromosomal abnormalities on CHO cells: Inactive (Method: OECD Test Guideline 473)
In vitro gene mutations test on mammalian cells: Inactive (Method: OECD Test Guideline 476)

In vivo

IMIDAZOLIDINE-2-THIONE :

In vivo micronucleus test: Inactive
unscheduled DNA synthesis assay: Inactive

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

Micronucleus test in vivo mouse: Inactive (Method: OECD Test Guideline 474)

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)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

- In animals : Absence of carcinogenic effects (Method: OECD Test Guideline 451, mice, Chronic, dermal route)

Reproductive toxicity:**Fertility:**

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

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

- In animals : Reproduction Test: No toxicity to reproduction
NOAEL (Parental toxicity): 1.000 mg/kg bw/day
NOAEL (Fertility): 1.000 mg/kg bw/day
(Method: OECD Test Guideline 421, Rat, By oral route)

Foetal development:

According to its composition, can be considered as : 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)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

- In animals : Absence of toxic effects for foetal development.
 NOAEL (Developmental Toxicity): 2.000 mg/kg bw/day
 NOAEL (Maternal Toxicity): < 125 mg/kg bw/day
 (Method: OECD Test Guideline 414, Rat, dermal route)

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)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

- In animals : By inhalation: No effect is reported.
 NOAEL= > 1 mg/l (Rat, 4 Weeks) (Aerosol)
 dermal route: No effect is reported.
 NOAEL= > 2.000 mg/kg (Method: OECD Test Guideline 411, Rat, 3 months)
 By oral route: (Results obtained on a similar product).
 Target organs: Reproductive organs, Stomach, Liver, Thymus, NOAEL= < 125 mg/kg (Method: OECD Test Guideline 408, Rat, 3 months)

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 : Harmful to aquatic life.

12.1. Toxicity :

Fish:

Slightly harmful to fish

IMIDAZOLIDINE-2-THIONE :

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

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

LL50, 96 h (Pimephales promelas (fathead minnow)) : > 100 mg/l (Method: OECD Test Guideline 203)

Aquatic invertebrates:

Harmful to daphnia.

IMIDAZOLIDINE-2-THIONE :

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

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

LL50, 48 h (Daphnia magna (Water flea)) : > 10.000 mg/l (Method: OECD Test Guideline 202, pH: 7,7, Immobilization)

Aquatic plants:

Slightly harmful to algae

IMIDAZOLIDINE-2-THIONE :

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

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

LL50, 72 h (Pseudokirchneriella subcapitata (microalgae)) : > 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)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
NOEC, 4 d (Photobacterium phosphoreum) : > 1,93 mg/l (Method: DIN 38412)

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)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
NOEC, 21 d (Daphnia magna (Water flea)) : 10 mg/l (Method: OECD Test Guideline 211, Growth inhibition/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)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
NOEC r, 72 h (Pseudokirchneriella subcapitata) : 100 mg/l (Method: OECD Test Guideline 201, growth rate inhibition)

12.2. Persistence and degradability :

In water: Not hydrolysable

Biodegradation (In water): Not readily biodegradable.

IMIDAZOLIDINE-2-THIONE :
Not biodegradable
(Method: OECD Test Guideline 301 F)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
Not readily biodegradable.
Not readily biodegradable.: 4 % after 28 d (Method: OECD Test Guideline 301 B)

12.3. Bioaccumulative potential :

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:

Surface tension: 65,7 mN/m 23 °C Active ingredient

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. 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

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): ethylene thiourea; imidazolidine-2-thione; 2-imidazoline-2-thiol: Distillates (petroleum), hydrotreated light paraffinic; Baseoil -- unspecified
EU. REACH, Annex XVII, Appendix 2, Entry 28 - Carcinogens: Category 1B (Table 3.1)/Category 2 (Table 3.2). (Regulation 1907/2006/EC): Distillates (petroleum), hydrotreated light paraffinic; Baseoil -- unspecified
EU. REACH, Annex XVII, Appendix 6, Entry 30 - Toxic to reproduction: Category 1B (Table 3.1)/Category 2 (Table 3.2). (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: None.

INVENTORIES:

TSCA: Conforms to
DSL: All components of this product are on the Canadian DSL
IECSC (CN): Conforms to
ENCS (JP): Conforms to
KECI (KR): Conforms to
PICCS (PH): Conforms to
AICS: Conforms to
NZIOC: Conforms to
TSCA 12B:

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.
H360 May damage fertility or the unborn child.
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:
REACH Registration Number	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).

