

Product: **Mixland + OTOS 75% GA**

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SDS No.: 100066-100 (Version 1.1)

Date 01.06.2016 (*Cancel and replace* : 07.04.2015)

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

1.1. Identification of the product

Identification of the mixture: Mixland + OTOS 75% GA

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

Use of the Substance/Mixture : rubber industry

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):

Carcinogenicity, 1B, H350
Chronic aquatic toxicity, 2, H411

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:

4-[(Morpholiniothio)thioxomethyl]morpholine

Hazard pictograms:



Signal word:

Danger

Hazard statements:

H350 : May cause cancer.
H411 : Toxic to aquatic life with long lasting effects.

Precautionary statements:

P281 : Use personal protective equipment as required.

Prevention:

P273 : Avoid release to the environment.

Response:

P308 + P313 : IF exposed or concerned: Get medical advice/ attention.

Disposal:

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

2.3. Other hazards : None.

Other:

Results of PBT and vPvB assessment : Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Chemical nature of the mixture¹:

Preparation based on polymers 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
4-[(Morpholinothio)thioxomethyl]morpholine (01-2119537273-42)	237-335-9	13752-51-7	75 %	Carc. 1B; H350 Aquatic Chronic 2; H411
Distillates (petroleum), hydrotreated light paraffinic (01-2119487077-29) (N° ANNEX: 649-468-00-3)	265-158-7	64742-55-8	11,5 %	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:

Provide appropriate exhaust ventilation at machinery. Provide showers, eye-baths. In the presence of an ignition source: Dust may form explosive mixture in air.

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 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: 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:	roll, or, pellets
Colour:	white
Odour:	odourless
Olfactory threshold:	Not relevant
pH:	No data available.
Melting point/range :	130 - 140 °C Active ingredient
Boiling point of the azeotrope :	Pure substance, Not applicable (decomposes on heating)
Flash point:	Not applicable (decomposes on heating)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Vapour pressure:	0,001153 Pa , at 25 °C Active ingredient
Vapour density:	No data available.
Relative density:	No data available.
Bulk density:	1.200 kg/m ³ , at 20 °C
Water solubility:	0,127 g/l Active ingredient at 25 °C (OECD Test Guideline 105)
Partition coefficient: n-octanol/water:	4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE : log Kow : 1,65 (OECD Test Guideline 117)
Auto-ignition temperature:	275 °C
Decomposition temperature:	140 °C Active ingredient
Viscosity:	No data available.
Explosive properties:	
Lower explosion limit :	30 g/m ³
Minimum ignition energy:	0,20 J
Explosivity:	Active substance, Not explosive
Oxidizing properties:	Not relevant

9.2. Other data:

Solubility in other solvents:	Soluble in: , Acetone
pKA:	Pure product :, None. (calculated)
Molecular weight:	248,3 g/mol

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: 140 °C
Active ingredient

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.

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

- In animals : No mortality/1 h/Rat: 164,4 mg/l

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

- In animals : No mortality/4 h/Rat: 5,53 mg/l (Method: OECD Test Guideline 403) (Aerosol)

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

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

- In animals : LD50/Rat: 5.000 mg/kg

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

- In animals : No mortality/Rat: 5.000 mg/kg (Method: OECD Test Guideline 401)

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

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

- In animals : LD50/Rabbit: > 10.000 mg/kg

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

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

- In animals : Mild skin irritation (Rabbit, Exposure time: 24 h)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

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

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

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

- In animals : Mild eye irritation (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: Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

- In animals : Not a skin sensitizer (Method : OECD Test Guideline 429 LLNA: Local Lymph Node Assay, 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

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

Ames test in vitro: Active
 Chromosome aberration test in vitro: Active
 In vitro mammalian cell gene mutation test: Active

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

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

dominant lethal test: Inactive

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

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

Carcinogenicity:

According to its composition : May cause cancer.

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

• In animals : Carcinogenic effects shown experimentally in animals, Target organs: Kidney (Rat, 2 years, By diet)

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.

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

• In animals : Reproductive/Developmental Effects Screening Assay: No adverse effects
 NOAEL (Parental toxicity) : 600 ppm
 NOAEL (Fertility) : 600 ppm
 (Method: OECD Test Guideline 421, Rat, By diet)

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:

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 : 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:**

Possible irritation of respiratory system

Repeated exposure:

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

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

• In animals : By diet: Systemic toxicity, Target organs: Kidney, NOAEL= < 20ppm (Rat, 2 years)

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

12.1. Toxicity :

Fish: From its composition, it must be considered as: **Toxic to fish.**

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :
LC50, 96 h (Oncorhynchus mykiss (rainbow trout)) : 9,1 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: From its composition, it must be considered as: **Toxic to daphnia.**

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :
EC50, 48 h (Daphnia magna (Water flea)) : 1,6 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: From its composition, it must be considered as: **Toxic to algae.**

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :
EC50, 72 h (Desmodesmus subspicatus (green algae)) : 5,9 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:

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :
EC20, 3 h (Activated sludge) : 120 mg/l (Method: OECD Test Guideline 209)

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

Aquatic toxicity / Long term toxicity:

Aquatic invertebrates:

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:

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :
NOEC, 72 h (Desmodesmus subspicatus (green algae)) : 2,5 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: Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

Stability in water:

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :
: Half-life: 14 min pH 4
Method: OECD Test Guideline 111
: Half-life: 44 h pH 7
Method: OECD Test Guideline 111

Biodegradation (In water): From its composition, it must be considered as: **Not readily biodegradable.**

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :

Inherently biodegradable.
42 % after 28 d (Method: OECD Test Guideline 301 B)

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 :

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

4-[(MORPHOLINOTHIO)THIOXOMETHYL]MORPHOLINE :
Partition coefficient: n-octanol/water: log Kow : 1,65 (Method: OECD Test Guideline 117)

12.4. Mobility in soil - Distribution among environmental compartments: No data available.

12.5. Results of PBT and vPvB assessment :

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

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.(N-OXYDIETHYLENETHIOCARBAMYL-N'-OXYDIETHYLENESULFENAMIDE)	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. (N-OXYDIETHYLENETHIOCARBAMYL-N'-OXYDIETHYLENESULFENAMIDE)	9	9	III	yes	
IATA Cargo	3077	Environmentally hazardous substance, solid, n.o.s. (n-oxydiethylenethiocarbamyl-n'-oxydiethylenesulfenamide)	9	9MI	III	yes	
IATA Passenger	3077	Environmentally hazardous substance, solid, n.o.s. (n-oxydiethylenethiocarbamyl-n'-oxydiethylenesulfenamide)	9	9MI	III	yes	
IMDG	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-OXYDIETHYLENETHIOCARBAMYL-N'-OXYDIETHYLENESULFENAMIDE)	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
PICCS (PH): 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.
H350 May cause cancer.
H411 Toxic to aquatic life with long lasting effects.

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).