

**Product:** **Mixland+ TBBS 75-80% GA**

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SDS No.: 100070-100 (Version 1.1 )

Date 20.05.2016 (Cancel and replace : 19.12.2014)

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

**1.1. Identification of the product**

**Identification of the mixture:** Mixland+ TBBS 75-80% GA

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

**Use of the Substance/Mixture :** Curing chemical

**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](mailto: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):**

Skin sensitisation, 1, H317  
Chronic aquatic toxicity, 1, H410

**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:**

N-tert-Butylbenzothiazole-2-sulphenamide

Hazard pictograms:



Signal word:

**Warning**

Hazard statements:

H317 : May cause an allergic skin reaction.  
H410 : Very toxic to aquatic life with long lasting effects.

Precautionary statements:

**Prevention:**

P262 : Do not get in eyes, on skin, or on clothing.  
P280 : Wear protective gloves/protective clothing/eye protection/face protection.  
P273 : Avoid release to the environment.

**Response:**

P337 + P313 : If eye irritation persists: 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 : According to REACH regulation, annex XIII, the substance does not meet PBT and vPvB criteria.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2. **Mixtures**

**Chemical nature of the mixture<sup>1</sup>:**

Mixture based on: Polymer and

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

Chemical name <sup>1</sup> & REACH Registration Number <sup>2</sup>	EC-No.	CAS-No.	Concentration	Classification REGULATION (EC) No 1272/2008
N-tert-Butylbenzothiazole-2-sulphenamide (01-2119492625-29)	202-409-1	95-31-8	71 - 80%	
Distillates (petroleum), hydrotreated light paraffinic (01-2119487077-29) (N° ANNEX: 649-468-00-3)	265-158-7	64742-55-8	>= 12 %	AH 1; H304 Nota L: DMSO <3%

<sup>1</sup>: See chapter 14 for Proper Shipping Name

<sup>2</sup>: 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.

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**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.**

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**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

##### 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.
ACGIH (US)	02 2012	TWA	–	5	Inhalable fraction.

#### Derived No Effect Level (DNEL):

End Use	Inhalation	Ingestion	Skin contact
Workers	14 mg/m3 (SE, LE, LT, ST)		67 mg/kg (SE, LT) 534 mg/kg (SE, ST)
Consumers	3,5 mg/m3 (LE, LT, SE, ST)	1 mg/kg (SE, LT) 8 mg/kg (SE, ST)	33 mg/kg (LT, SE) 266 mg/kg (ST, 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

#### 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:** pellets  
**Colour:** beige  
**Odour:** characteristic  
**Olfactory threshold:** No data available.  
**pH:** Not applicable  
**Melting point/range :** 100 - 105 °C (OECD Test Guideline 102)  
**Boiling point/boiling range :**  
**Flash point:** No data available.  
**Evaporation rate:** No data available.  
**Flammability (solid, gas):**  
Flammability: Non flammable product (Standard A10)  
**Vapour pressure:** < 0,0000021 hPa , at 25 °C Active ingredient (OECD Test Guideline 104)  
**Vapour density:** No data available.  
**Density:** 1,3 g/cm3  
1,16 g/cm3 packed

<b>Water solubility:</b>	insoluble
<b>Partition coefficient: n-octanol/water:</b>	log Kow : 3,36 , at 25 °C (OECD Test Guideline 117)
<b>Auto-ignition temperature:</b>	Not applicable
<b>Decomposition temperature:</b>	207 °C Active ingredient
<b>Viscosity:</b>	No data available.
<b>Explosive properties:</b>	No data available.
<b>Oxidizing properties:</b>	No data available.

## 9.2. Other data:

<b>Solubility in other solvents:</b>	Alcohols , Acetone , Chloroform Active ingredient
<b>pKA:</b>	None.
<b>Molecular weight:</b>	Active ingredient 238 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: 207 °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:**

No data available.

##### **Ingestion:**

• In animals :

**Slightly harmful by ingestion**  
LD50/Rat: 6.310 - 7.940 mg/kg

##### **Dermal:**

• In animals :

**Slightly or not harmful in contact with skin**  
No mortality/24 h/Rabbit: 7.940 mg/kg

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

##### **Skin contact:**

• In animals :

**Non irritating to skin**  
No skin irritation (OECD Test Guideline 404, Rabbit)

##### **Eye contact:**

• In animals :

**Slightly or not irritating to eyes**  
Mild eye irritation (OECD Test Guideline 405, Rabbit)

#### Respiratory or skin sensitisation:

##### **Inhalation:**

No data available.

##### **Skin contact:**

**Skin sensitizer**

- In man : Sensitizing effects by skin contact. (Method: Repeated skin exposure)
- In animals : Not a skin sensitizer (Method: OECD Test Guideline 406 Buehler Test)

**CMR effects :**

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

**In vitro**

Ames test in vitro: Inactive (Method: OECD Test Guideline 471)  
Tests for chromosome aberrations in vitro on mammalian cells: Some positive tests (Method: OECD Test Guideline 473)  
In vitro gene mutations test on mammalian cells: Active (Method: OECD Test Guideline 476)

**In vivo**

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.

**Foetal development:** Based on the available data, the substance is not suspected of having developmental toxicity potential.

**Specific target organ toxicity :**

**Single exposure :** No data available.

**Repeated exposure:**

- In animals :

**The substance or mixture is not classified as specific target organ toxicant, repeated exposure.**

By oral route: No specific toxic effects  
Lost of weight, NOAEL= 100 mg/kg, LOAEL= 300 mg/kg (Method: OECD Test Guideline 408, Rat, 13 Weeks)  
By oral route: Target organs: Liver, Kidney, NOAEL= 40 mg/kg, LOAEL= 200 mg/kg (Method: OECD Test Guideline 422, Rat, 4 Weeks)  
dermal route: No specific toxic effects  
NOAEL= 2.000 mg/kg (Method: OECD Test Guideline 410, Rabbit, 3 Weeks)  
Local irritation  
Target organs: Skin, NOAEL= 500 mg/kg

**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.

**12.1. Toxicity :**

**Fish:** **Toxic to fish.**  
LC50, 96 h (Oryzias latipes (Japanese medaka)) : = 1,38 mg/l (Method: OECD Test Guideline 203)

**Aquatic invertebrates:** **Toxic to daphnia.**  
EC50, 48 h (Daphnia magna (Water flea)) : = 1,3 mg/l (Method: OECD Test Guideline 202)

**Aquatic plants:** **Very toxic to algae.**  
EC50, 72 h (Scenedesmus capricornutum (fresh water algae)) : = 0,071 mg/l (Method: OECD Test Guideline 201, growth rate inhibition)

**Microorganisms:**  
EC50, 3 h : > 10.000 mg/l (Method: ISO 8192)

**Aquatic toxicity / Long term toxicity:**

**Fish:** Through analogy with a comparable product :  
NOEC, 89 d (Oncorhynchus mykiss (rainbow trout)) : = 0,041 mg/l (Method: OECD Test Guideline 210)

**Aquatic plants:** NOEC, 72 h (Scenedesmus capricornutum (fresh water algae)) : = 0,023 mg/l (Method: OECD Test Guideline 201, growth rate inhibition)

**12.2. Persistence and degradability :**

**Stability in water:**

at 25 °C  
Method: OECD Test Guideline 111  
Half-life: 11,3 - 12,6 h pH 5  
Half-life: 7,76 - 9,53 h pH 7  
Half-life: 40,5 - 42,1 h pH 9

**Biodegradation (In water):**

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

**12.3. Bioaccumulative potential :**

Partition coefficient: n-octanol/water: log Kow : 3,36 , at 25 °C (Method: OECD Test Guideline 117)  
Information refers to degradation products  
Bioconcentration factor (BCF): < 9 (42 d, Method: measured, Cyprinus carpio (Carp))

**12.4. Mobility in soil - Distribution among environmental compartments:**

**Absorption / desorption:**

Through analogy with a comparable product :  
log Koc: 2,51 - 3,55 ( Method: measured )

**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).

**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-TERT-BUTYLBENZOTHIAZOL-2-SULPHENAMIDE)	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-TERT-BUTYLBENZOTHIAZOL-2-SULPHENAMIDE)	9	9	III	yes	
IATA Cargo	3077	Environmentally hazardous substance, solid, n.o.s. (N-tert-Butylbenzothiazole-2-sulphenamide)	9	9MI	III	yes	
IATA Passenger	3077	Environmentally hazardous substance, solid, n.o.s. (N-tert-Butylbenzothiazole-2-sulphenamide)	9	9MI	III	yes	
IMDG	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-TERT-BUTYLBENZOTHIAZOL-2-SULPHENAMIDE)	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:**

EINECS:	Conforms to
TSCA:	Conforms to
AICS:	Conforms to
DSL:	All components of this product are on the Canadian DSL
ENCS (JP):	Does not conform
KECI (KR):	Conforms to
PICCS (PH):	Conforms to
IECSC (CN):	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.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

**Update:**

Safety datasheet sections which have been updated:	Type:
3 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).**