

**Product:** **Mixland+ ZDEC 75% BA/GA**

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SDS No.: 100079-100 (Version 1.0 )

Date 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+ ZDEC 75% BA/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-LES-LANDES Tel. + 33 (0) 5 58 57 02 00 <a href="http://www.mlpc-intl.com">http://www.mlpc-intl.com</a> fds@mlpc-intl.com
E-mail address	

### 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  
Skin irritation, 2, H315  
Eye irritation, 2, H319  
Skin sensitisation, 1, H317  
Specific target organ toxicity - single exposure, 3, Respiratory system, H335  
Acute aquatic toxicity, 1, H400  
Chronic aquatic toxicity, 1, H410

#### Classification according to EU Directives 1999/45/EC :

Xn; R22  
; R43  
Xi; R36/37/38  
N; R50/53

#### Additional information:

For the full text of the R, 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:**

zinc bis(diethyldithiocarbamate)

Hazard pictograms:



Signal word:

**Warning**

Hazard statements:

- H302 : Harmful if swallowed.
- H315 : Causes skin irritation.
- H317 : May cause an allergic skin reaction.
- H319 : Causes serious eye irritation.
- H335 : May cause respiratory irritation.
- H410 : Very toxic to aquatic life with long lasting effects.

Precautionary statements:

**Prevention:**

- P280 : Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P273 : Avoid release to the environment.

**Response:**

- P333 + P313 : If skin irritation or rash occurs: Get medical advice/ attention.
- P337 + P313 : If eye irritation persists: Get medical advice/ attention.
- P302 + P352 : IF ON SKIN: Wash with plenty of water.
- P312 : Call a POISON CENTER or doctor/ physician if you feel unwell.

**Storage:**

- P403 + P233 : Store in a well-ventilated place. Keep container tightly closed.

**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, this mixture contains no substance meeting 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 (according to Regulation (EC) No. 1907/2006) :**

Chemical Name <sup>1</sup> & REACH Registration Number <sup>2</sup>	EC-No.	CAS-No.	Concentration	Classification Directive 67/548/EEC	Classification REGULATION (EC) No 1272/2008
Zinc, bis(diethylcarbamo-dithioato-S-S') (N° ANNEX: 006-082-00-4)	238-270-9	14324-55-1	75 %	Xn; R22 Xi; R36/37/38 R43 N; R50/53	Acute Tox. 4 (Oral); H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Distillates (petroleum), hydrotreated light paraffinic (N° ANNEX: 649-468-00-3)	265-158-7	64742-55-8	13,5 %	Nota L: DMSO <3%	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 R, H, EUH-phrases mentioned in this Section, see Section 16.

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#### 4. FIRST AID MEASURES

##### 4.1. & 4.2. Description of necessary first-aid measures & Most important symptoms/effects, acute and delayed:

**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.

##### 4.3. Indication of immediate medical attention and special treatment needed, if necessary : No data available.

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#### 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.

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**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

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties**

**Appearance:**

<b>Physical state (20°C):</b>	solid
<b>Odour:</b>	No data available.
<b>Olfactory threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point :</b>	Active ingredient 171 °C (OECD Test Guideline 102)
<b>Boiling point/boiling range :</b>	Active ingredient 309 °C (OECD Test Guideline 103)
<b>Flash point:</b>	No data available.
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	
Flammability:	Non flammable product (Method A10: Flammability (solids))
<b>Vapour pressure:</b>	No data available.
<b>Vapour density:</b>	No data available.
<b>Relative density:</b>	No data available.
<b>Water solubility:</b>	1,06 mg/l Active ingredient at 20 °C
<b>Partition coefficient: n-octanol/water:</b>	ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') : log Kow : 3,11 (QSAR)
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	Active ingredient, None.
<b>Viscosity:</b>	No data available.
<b>Explosive properties:</b>	No data available.
<b>Oxidizing properties:</b>	No data available.

**9.2. Other data:**

**Solubility in other solvents:** Chloroform , Aromatic solvents

## 10. STABILITY AND REACTIVITY

### 10.1. & 10.2. Reactivity & 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:

Active ingredient, None.

Nitrogen oxides (NOx), Carbon dioxide (CO<sub>2</sub>), 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.

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :

• In animals : LD50/Rat: 1.960 - 2.280 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.

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :

• In animals : No mortality/24 h/Rabbit: 2.000 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:** According to its composition, can be considered as : Causes skin irritation.

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :

Irritating to skin.

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

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

#### **Eye contact:**

According to its composition, can be considered as : Causes serious eye irritation.

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :

Irritating to eyes.

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 its composition, can be considered as : Skin sensitizer

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
Skin sensitizer

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 hasard potential of this mixture.**

**In vitro**

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
Ames test in vitro: Active (Method: OECD Test Guideline 471)

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**

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
Chromosome aberration test in vivo: Inactive  
DNA repair test on rats hepatocytes: Inconclusive results

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :  
Micronucleus test in vivo mouse: Inactive (Method: OECD Test Guideline 474)

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

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
• In animals : Absence of carcinogenic effects (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 hasard potential of this mixture.**

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
(Results obtained on a similar product).  
• In animals : Two generations study.: Absence of toxic effects on fertility  
NOAEL ( Parental toxicity ) : 10 mg/kg bw/day  
NOAEL ( Fertility ) : 25 mg/kg bw/day  
NOAEL ( Developmental Toxicity ) : 10 mg/kg bw/day  
(Method: OECD Test Guideline 416, Rat, By oral route)

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 hasard potential of this mixture.**

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
• In animals : Exposure during pregnancy  
(Method: OECD Test Guideline 414, By oral route)  
Absence of congenital malformations and embryotoxic effects at non-toxic doses for the mothers  
NOAEL ( Developmental Toxicity ) : 250 mg/kg bw/day  
NOAEL ( Maternal Toxicity ) : 125 mg/kg bw/day  
(Rat)  
(Results obtained on a similar product).  
Absence of congenital malformations and embryotoxic effects at non-toxic doses for the mothers  
NOAEL ( Developmental Toxicity ) : 7,5 mg/kg bw/day  
NOAEL ( Maternal Toxicity ) : 3 mg/kg bw/day  
(Rabbit)

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 :**

**The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.**

Exposure routes : Inhalation  
Target Organs : Respiratory Tract

**Inhalation:**

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
Irritating to respiratory system.

**Repeated exposure:**

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

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
• In animals : By diet: Target organs: Thyroid gland, NOAEL= < 36 mg/kg (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 applicable

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**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 : Very toxic to aquatic life.  
Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

**12.1. Toxicity :**

**Fish: Very toxic to fish.**

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
LC50, 96 h (Oncorhynchus mykiss (rainbow trout)) : 0,23 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: Very toxic to daphnia.**

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
EC50 (Daphnia (water flea)) : 0,24 mg/l (Method: OECD Test Guideline 202)

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: Toxic to algae.**

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
EC50, 96 h (Chlorella vulgaris (Fresh water algae)) : 1,1 mg/l (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:**

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:**

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 :**

**Stability in water:**

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
Through analogy with a comparable product :  
Half-life: 10 min (at 25 °C and pH 5)  
  
Half-life: 17,67 h at 25 °C and pH 7  
Half-life: 6,31 d at 25 °C and pH 9

**Biodegradation (In water):** **All the products and/or components quoted in section 3 and/or analogue substances/metabolites are not readily biodegradable.**

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
Not readily biodegradable.  
Through analogy with a comparable product :

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.**

ZINC, BIS(DIETHYLCARBAMODITHIOATO-S-S') :  
Partition coefficient: n-octanol/water: log Kow : 3,11 (Method: QSAR)

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

**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.

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**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).

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**14. TRANSPORT INFORMATION**



Regulation	UN number	Proper shipping name	Class	Label	PG	Environmentally hazardous	Other information
ADR	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(ZINC,BIS(DIETHYLCARBAMODITHIOATO-S,S'))	9	9	III	yes	
RID	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC,BIS(DIETHYLCARBAMODITHIOATO-S,S'))	9	9	III	yes	
IATA Cargo	3077	Environmentally hazardous substance, solid, n.o.s. (Zinc, bis(diethylcarbamidithioato-S-S'))	9	9MI	III	yes	
IATA Passenger	3077	Environmentally hazardous substance, solid, n.o.s. (Zinc, bis(diethylcarbamidithioato-S-S'))	9	9MI	III	yes	
IMDG	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC,BIS(DIETHYLCARBAMODITHIOATO-S,S'))	9	9	III	Marine pollutant	EmS Number: F-A, S-F Mark: MP

## 15. REGULATORY INFORMATION

Safety data sheets: according to Regulation (EC) No. 1907/2006

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:

15.2. Chemical Safety Assessment: None.

#### INVENTORIES:

DSL:	Conforms to
TSCA:	Conforms to
AICS:	Conforms to
EINECS:	Conforms to
ENCS (JP):	Conforms to
ISHL (JP):	Conforms to
KECI (KR):	Conforms to
NZIOC:	HSNO Approved
PICCS (PH):	Conforms to

## 16. OTHER INFORMATION

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

R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

#### Update:

Safety datasheet sections which have been updated:	Type:
General update of Safety Data Sheet.	

#### 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).**

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