



## SAFETY DATA SHEET of: FerroTeq 625 base

Revision date: Friday, June 1, 2018

### 1 SECTION 1: Identification of the substance/mixture and of the company/undertaking:

#### 1.1 Product identifier:

FerroTeq 625 base

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

/

Concentration in use: /

#### 1.3 Details of the supplier of the safety data sheet:

**PROKOL**

Duizeldonksestraat 44

NL5705CA HELMOND (NEDERLAND)

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#### 1.4 Emergency telephone number:

+313 02 74 88 88

### 2 SECTION 2: Hazards identification:

#### 2.1 Classification of the substance or mixture:

Classification of the substance or mixture in accordance with regulation (EU) 1272/2008:

**H226 Flam. Liq. 3 H317 Skin Sens. 1 H319 Eye Irrit. 2 H411 Aquatic Chronic 2**

#### 2.2 Label elements:

Pictograms:



Signal word:

Warning

#### Hazard statements:

<b>H226 Flam. Liq. 3:</b>	Flammable liquid and vapour.
<b>H317 Skin Sens. 1:</b>	May cause an allergic skin reaction.
<b>H319 Eye Irrit. 2:</b>	Causes serious eye irritation.
<b>H411 Aquatic Chronic 2:</b>	Toxic to aquatic life with long lasting effects.

#### Precautionary statements:

<b>P280:</b>	Wear protective gloves, protective clothing, eye protection, face protection.
<b>P305+P351+P338:</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P333+P313:</b>	If skin irritation or rash occurs: Get medical advice/attention.
<b>P337+P313:</b>	If eye irritation persists: Get medical advice/attention.
<b>P362+P364:</b>	Take off contaminated clothing and wash it before reuse.
<b>P501:</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Contains:

tetraethyl N,N'-(methylene di cyclohexane-4,1-diyl)bis-DL-aspartate      bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane

#### 2.3 Other hazards:

none

### 3 SECTION 3: Composition/information on ingredients:

bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	15% - 30%	CAS number: EINECS: REACH Registration number: CLP Classification:	136210-32-7 412-060-9 01-0000015937-58 <b>H317 Skin Sens. 1</b> <b>H412 Aquatic Chronic 3</b>
n-Butylacetate	15% - 30%	CAS number: EINECS: REACH Registration number: CLP Classification:	123-86-4 204-658-1 01-2119485493-29 <b>EUH066</b> <b>H226 Flam. Liq. 3</b> <b>H336 STOT SE 3</b>
Trizinc bis(orthophosphate)	5% - 15%	CAS number: EINECS: REACH Registration number: CLP Classification:	7779-90-0 231-944-3 01-2119485044-40-000 <b>H400 Aquatic Acute 1</b> <b>H410 Aquatic Chronic 1</b>
tetraethyl N,N'-(methylene di cyclohexane-4,1-diyl)bis-DL-aspartate	5% - 15%	CAS number: EINECS: REACH Registration number: CLP Classification:	136210-30-5 429-270-1 01-0000017556-64 <b>H317 Skin Sens. 1</b> <b>H412 Aquatic Chronic 3</b>

Hydrocarbons, C9, aromatics	< 5%	CAS number: 918-668-5 EINECS: 918-668-5 REACH Registration number: 01-2119455851-35 CLP Classification: <b>EUH066</b> <b>H226 Flam. Liq. 3</b> <b>H304 Asp. Tox. 1</b> <b>H335 STOT SE 3</b> <b>H336 STOT SE 3</b> <b>H411 Aquatic Chronic 2</b>
2-methoxy-1-methylethyl acetate	< 5%	CAS number: 108-65-6 EINECS: 203-603-9 REACH Registration number: 01-2119475791-29 CLP Classification: <b>H226 Flam. Liq. 3</b>
Fattyalcohol, ethoxylated	< 5%	CAS number: 68439-46-3 EINECS: REACH Registration number: CLP Classification: <b>H318 Eye Dam. 1</b>
Xylene, mixture of isomers	< 5%	CAS number: 1330-20-7 EINECS: 215-535-7 REACH Registration number: 01-2119486136-34 CLP Classification: <b>H226 Flam. Liq. 3</b> <b>H304 Asp. Tox. 1</b> <b>H312 Acute tox. 4</b> <b>H315 Skin Irrit. 2</b> <b>H319 Eye Irrit. 2</b> <b>H332 Acute tox. 4</b> <b>H335 STOT SE 3</b> <b>H373 STOT RE 2</b>
Ethylbenzene	< 5%	CAS number: 100-41-4 EINECS: 202-849-4 REACH Registration number: 01-2119489370-35-XXXX CLP Classification: <b>H225 Flam. Liq. 2</b> <b>H304 Asp. Tox. 1</b> <b>H332 Acute tox. 4</b> <b>H373 STOT RE 2</b> <b>H412 Aquatic Chronic 3</b>
3-aminopropyltriethoxysilane	< 5%	CAS number: 919-30-2 EINECS: 213-048-4 REACH Registration number: 01-2119480479-24 CLP Classification: <b>H302 Acute tox. 4</b> <b>H314 Skin Corr. 1B</b>

For the full text of the H & R phrases mentioned in this section, see section 16.

## 4 SECTION 4: First aid measures:

### 4.1 Description of first aid measures:

Always ask medical advice as soon as possible should serious or continuous disturbances occur.

**Skin contact:** remove contaminated clothing, rinse with plenty of water, if necessary seek medical attention.

**Eye contact:** first prolonged rinsing with water (contact lenses to be removed if this is easily done) then take to physician.

**Ingestion:** rinse mouth, do not induce vomiting, take to hospital immediately.  
**Inhalation:** let sit upright, fresh air, rest and take to hospital.

#### 4.2 Most important symptoms and effects, both acute and delayed:

**Skin contact:** redness, pain  
**Eye contact:** redness, pain, bad looking  
**Ingestion:** diarrhoea, headache, abdominal cramps, sleepiness, vomiting  
**Inhalation:** sore throat, cough, shortness of breath, headache

#### 4.3 Indication of any immediate medical attention and special treatment needed:

none

## 5 SECTION 5: Fire-fighting measures:

### 5.1 Extinguishing media:

CO2, foam, powder, sprayed water

### 5.2 Special hazards arising from the substance or mixture:

none

### 5.3 Advice for firefighters:

**Extinguishing agents to be avoided:** none

## 6 SECTION 6: Accidental release measures:

### 6.1 Personal precautions, protective equipment and emergency procedures:

Do not walk into or touch spilled substances and avoid inhalation of fumes, smoke, dusts and vapours by staying up wind. Remove any contaminated clothing and used contaminated protective equipment and dispose of it safely.

### 6.2 Environmental precautions:

do not allow to flow into sewers or open water.

### 6.3 Methods and material for containment and cleaning up:

Contain released substance, store into suitable containers. If possible remove by using absorbent material.

### 6.4 Reference to other sections:

for further information check sections 8 & 13.

## 7 SECTION 7: Handling and storage:

### 7.1 Precautions for safe handling:

handle with care to avoid spillage.

## 7.2 Conditions for safe storage, including any incompatibilities:

keep in a sealed container in a closed, frost-free, ventilated room.

## 7.3 Specific end use(s):

/





# 8 SECTION 8: Exposure controls/personal protection:

## 8.1 Control parameters:

Listing of the hazardous ingredients in section 3, of which the TLV value is known

n-Butylacetate 723 mg/m<sup>3</sup>, Ethylbenzene 442 mg/m<sup>3</sup>, 2-methoxy-1-methylethyl acetate 275 mg/m<sup>3</sup>, Xylene, mixture of isomers 221 mg/m<sup>3</sup>

## 8.2 Exposure controls:

<b>Inhalation protection:</b>	if necessary, use an air-purifying face mask in case of respiratory hazards.	
<b>Skin protection:</b>	handling with nitril-gloves (EN 374). Breakthrough time: >480' Material thickness: 0,35 mm. Thoroughly check gloves before use. Take of the gloves properly without touching the outside with your bare hands. The manufacturer of the protective gloves has to be consulted about the suitability for a specific work station. Wash and dry your hands.	
<b>Eye protection:</b>	keep an eye-rinse bottle within reach. Tight-fitting safety goggles. Wear a face shield and protective suit in case of exceptional processing problems.	
<b>Other protection:</b>	impermeable clothing. The type of protective equipment depends on the concentration and amount of hazardous substances at the work station in question.	

# 9 SECTION 9: Physical and chemical properties:

## 9.1 Information on basic physical and chemical properties:

<b>Melting point/melting range:</b>	/
<b>Boiling point/Boiling range:</b>	100 °C — 180 °C
<b>pH:</b>	/
<b>pH 1% diluted in water:</b>	/
<b>Vapour pressure/20°C,:</b>	1 420 Pa
<b>Vapour density:</b>	not applicable
<b>Relative density, 20°C:</b>	1.4860 kg/l
<b>Appearance/20°C:</b>	liquid
<b>Flash point:</b>	50 °C
<b>Flammability (solid, gas):</b>	not applicable
<b>Auto-ignition temperature:</b>	325 °C
<b>Upper flammability or explosive limit, (Vol %):</b>	15.000 %
<b>Lower flammability or explosive limit, (Vol %):</b>	0.800 %
<b>Explosive properties:</b>	not applicable
<b>Oxidising properties:</b>	not applicable
<b>Decomposition temperature:</b>	/

<b>Solubility in water:</b>	not soluble
<b>Partition coefficient: n-octanol/water:</b>	not applicable
<b>Odour:</b>	characteristic
<b>Odour threshold:</b>	not applicable
<b>Dynamic viscosity, 20°C:</b>	10 000 mPa.s
<b>Kinematic viscosity, 40°C:</b>	6 729 mm²/s
<b>Evaporation rate (n-BuAc = 1):</b>	1.900

## 9.2 Other information:

<b>Volatile organic component (VOC):</b>	25.50 %
<b>Volatile organic component (VOC):</b>	363.000 g/l
<b>Sustained combustion test :</b>	/

# 10 SECTION 10: Stability and reactivity:

## 10.1 Reactivity:

stable under normal conditions.

## 10.2 Chemical stability:

extremely high or low temperatures.

## 10.3 Possibility of hazardous reactions:

none

## 10.4 Conditions to avoid:

protect from sunlight and do not expose to temperatures exceeding + 50°C.

## 10.5 Incompatible materials:

acids, alkalines, oxidants, reductants

## 10.6 Hazardous decomposition products:

doesn't decompose with normal use

# 11 SECTION 11: Toxicological information:

## 11.1 Information on toxicological effects:

<b>H317 Skin Sens. 1:</b>	May cause an allergic skin reaction.
<b>H319 Eye Irrit. 2:</b>	Causes serious eye irritation.

**Calculated acute toxicity, ATE oral:** /

**Calculated acute toxicity, ATE dermal:** /

bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	<b>LD50 oral, rat:</b>	≥ 5,000 mg/kg
	<b>LD50 dermal, rabbit:</b>	≥ 5,000 mg/kg
	<b>LC50, Inhalation, rat, 4h:</b>	≥ 50 mg/l

n-Butylacetate	LD50 oral, rat: ≥ 5,000 mg/kg LD50 dermal, rabbit: ≥ 5,000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l
Trizinc bis(orthophosphate)	LD50 oral, rat: ≥ 5,000 mg/kg LD50 dermal, rabbit: ≥ 5,000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l
tetraethyl N,N'-(methylene di cyclohexane-4,1-diyl)bis-DL-aspartate	LD50 oral, rat: ≥ 5,000 mg/kg LD50 dermal, rabbit: ≥ 5,000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l
Hydrocarbons, C9, aromatics	LD50 oral, rat: 3,492 mg/kg LD50 dermal, rabbit: 3,160 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l
2-methoxy-1-methylethyl acetate	LD50 oral, rat: 2,000 mg/kg LD50 dermal, rabbit: ≥ 5,000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l
Fattyalcohol, ethoxylated	LD50 oral, rat: ≥ 5,000 mg/kg LD50 dermal, rabbit: ≥ 5,000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l
Xylene, mixture of isomers	LD50 oral, rat: ≥ 5,000 mg/kg LD50 dermal, rabbit: 1,000 mg/kg LC50, Inhalation, rat, 4h: 11 mg/l
Ethylbenzene	LD50 oral, rat: 3,500 mg/kg LD50 dermal, rabbit: ≥ 5,000 mg/kg LC50, Inhalation, rat, 4h: 11 mg/l
3-aminopropyltriethoxysilane	LD50 oral, rat: 500 mg/kg LD50 dermal, rabbit: ≥ 5,000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l

## 12 SECTION 12: Ecological information:

### 12.1 Toxicity:

bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	LC50 (Fish): 66 mg/L (Danio rerio)(96h) EC50 (Daphnia): 88,6 mg/L (48 h) NOEC (Daphnia): 0,01 mg/L (21 d) NOEC (Algae): 3,110 mg/L (3h) EC50 (soil microorganisms): IC50: 113 mg/L
n-Butylacetate	LC50 (Fish): 18 mg/L (96h) EC50 (Daphnia): 44 mg/L (48h) EC50 (Algae): 674,7 mg/L (72h) NOEC (Algae): 200 mg/L (72h)

tetraethyl N,N'-(methylene di cyclohexane-4,1-diyl)bis-DL-aspartate	LC50 (Fish): 66 mg/L (Danio rerio)(96h) EC50 (Daphnia): 88,6 mg/L (48 h) NOEC (Daphnia): 0,01 mg/L (21 d) EC50 (Algae): IC50 113 mg/L EC50 (soil microorganisms): 3,110 mg/L (3h)
Xylene, mixture of isomers	LC50 (Fish): 1-10 mg/L (96h) LC50 (Daphnia): 1-10 mg/L (96h) EC50 (Algae): 1-10 mg/L (96h)

## 12.2 Persistence and degradability:

No additional data available

## 12.3 Bioaccumulative potential:

	Additional data:
n-Butylacetate	Log Pow: 1.81 - 2.3
tetraethyl N,N'-(methylene di cyclohexane-4,1-diyl)bis-DL-aspartate	Log Pow: 5,16 (20°C)
2-methoxy-1-methylethyl acetate	Log Pow: 1,2

## 12.4 Mobility in soil:

**Water hazard class, WGK (AwSV):** 2

**Solubility in water:** not soluble

## 12.5 Results of PBT and vPvB assessment:

No additional data available

## 12.6 Other adverse effects:

No additional data available

# 13 SECTION 13: Disposal considerations:

## 13.1 Waste treatment methods:

Draining into the sewers is not permitted. Removal should be carried out by licensed services. Possible restrictive regulations by local authority should always be adhered to.

# 14 SECTION 14: Transport information:

## 14.1 UN number:

1993

## 14.2 UN proper shipping name:

UN 1993 Flammable Liquid, n.o.s. (mixture with n-Butylacetate) , 3, III, (D/E)

## 14.3 Transport hazard class(es):

**Class(es):** 3



Identification number of the hazard:

30

#### 14.4 Packing group:

III

#### 14.5 Environmental hazards:

environmentally hazardous

#### 14.6 Special precautions for user:

Hazard characteristics:

Risk of fire. Risk of explosion. Containments may explode when heated.

Additional guidance:

Take cover. Keep out of low areas.



## 15 SECTION 15: Regulatory information:

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

Water hazard class, WGK (AwSV): 2

Volatile organic component (VOC): 25.500 %

Volatile organic component (VOC): 363.000 g/l

Composition by regulation (EC) 648/2004: Phosphates 5% - 15%, Aromatic hydrocarbons < 5%

### 15.2 Chemical Safety Assessment:

No data available

## 16 SECTION 16: Other information:

### Legend to abbreviations used in the safety data sheet:

ADR:	The European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF:	Bioconcentration factor
CAS:	Chemical Abstracts Service
CLP:	Classification, Labelling and Packaging of chemicals
EINECS:	European INventory of Existing Commercial chemical Substances
Nr.:	number
PTB:	persistent, toxic, bioaccumulative
TLV:	Threshold Limit Value
vPvB:	very persistent and very bioaccumulative substances
WGK:	Water hazard class
WGK 1:	slightly hazardous for water
WGK 2:	hazardous for water

**Legend to the H Phrases used in the safety data sheet:**

**EUH066:** Repeated exposure may cause skin dryness or cracking. **H225 Flam. Liq. 2:** Highly flammable liquid and vapour. **H226 Flam. Liq. 3:** Flammable liquid and vapour. **H302 Acute tox. 4:** Harmful if swallowed. **H304 Asp. Tox. 1:** May be fatal if swallowed and enters airways. **H312 Acute tox. 4:** Harmful in contact with skin. **H314 Skin Corr. 1B:** Causes severe skin burns and eye damage. **H315 Skin Irrit. 2:** Causes skin irritation. **H317 Skin Sens. 1:** May cause an allergic skin reaction. **H318 Eye Dam. 1:** Causes serious eye damage. **H319 Eye Irrit. 2:** Causes serious eye irritation. **H332 Acute tox. 4:** Harmful if inhaled. **H335 STOT SE 3:** May cause respiratory irritation. **H336 STOT SE 3:** May cause drowsiness or dizziness. **H373 STOT RE 2:** May cause damage to organs through prolonged or repeated exposure. **H400 Aquatic Acute 1:** Very toxic to aquatic life. **H410 Aquatic Chronic 1:** Very toxic to aquatic life with long lasting effects. **H411 Aquatic Chronic 2:** Toxic to aquatic life with long lasting effects. **H412 Aquatic Chronic 3:** Harmful to aquatic life with long lasting effects.

**Reason of revision, changes of following items:**

Section: 9.2

**MSDS reference number:**

ECM-109416,01

*This safety information sheet has been compiled in accordance with annex II/A of the regulation (EU) No 2015/830. Classification has been calculated in accordance with European regulation 1272/2008 with their respective amendments. It has been compiled with the utmost care. We cannot, however, accept responsibility for damage, of any kind, that may be caused by using these data or the product concerned. To use this preparation for an experiment or a new application, the user must carry out a material suitability and safety study himself.*