SAFETY DATA SHEET
according to Regulation (EC) No 1907/ 2006
as amended by Regulation (EU) No 2015/ 830

KRONOTREAT 2082

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product trade name : KRONOTREAT 2082

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

Intended uses : Phosphating

Uses advised against : All other applications except: Phosphating

1.3. Details of the supplier of the safety data sheet

Paint Trade LLC
Ukraine 49041
Dnipro, Startova Str. 3
Tel. +38(056)375-70-25,
Fax: +38(056)375-70-30
info@silta.ua, www.silta.ua

1.4. Emergency telephone number

: +38(056)375-70-25

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Skin Corrosion/ Irritation	Category 1
Subcategory	Sub-category B – (H314)
Serious eye damage/ eye irritation	Category 1 – (H318)
Carcinogenicity	Category 1A – (H350i)
Reproductive toxicity	Category 1B – (H360D)
Acute aquatic toxicity	Category 1 – (H400)
Chronic aquatic toxicity	Category 1 – (H410)

Classification procedure: Calculation method

2.2. Label elements

Label elements :

Contains : Orthophosphoric acid, Nitric Acid, Fluoboric Acid, Nitric acid, nickel(2+) salt, hexahydrate
N опасно длля окружающей среды

Signal world : DANGER

Hazard Statements : H314 - Causes severe skin burns and eye damage
H410 - Very toxic to aquatic life with long lasting effects H350i - May cause cancer by inhalation
H360D - May damage the unborn child

Precautionary statements : P260 - Do not breathe dust/ fume/ gas/ mist/ vapors/ spray
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower
P280 - Wear eye protection/ face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/ physician P201 - Obtain special instructions before use

P281 - Use personal protective equipment as required

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

P202 - Do not handle until all safety precautions have been read and understood P273 - Avoid release to the environment

2.3. Other hazards

None under normal use

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable. Product is a mixture

3.2. Mixture

Description of the mixture:

Product is a mixture of water, salts, acids, additives

Hazardous ingridients

Chemicel name	EC No	Index.№	REACH Registration No	Weighth %	Classification according to Regulation (EC) No 1272/2008 (CLP)
Zinc phosphate 7779-90-0	231-944-3	030-011-00-6	01-2119485044-40	10-30	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Orthophosphoric acid 7664-38-2	231-633-2	015-011-00-6	01-2119485924-24	5-10	Skin Corr. 1B (H314)
Nitric Acid 7697-37-2	231-714-2	007-004-00-1	01-2119487297-23	5-10	Oxid. Liquid 2 (H272) Met. Corr. 1 (H290) Acute Tox. 3 (H331) Skin Corr. 1A (H314)
Nitric acid, nickel(2+) salt, hexahydrate 13478-00-7	236-068-5	028-012-00-1	01-2119492333-38	<1	Ox. Sol. 2 (H272) Acute Tox. 4 (H302) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Muta. 2 (H341) Carc. 1A (H350i) Repr. 1B (H360D) STOT RE 1 (H372) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Aqua Acute 1 (H400) Aqua Chronic 1 (H410)
Nitric acid, copper(2+) salt, hydrate (2:1:3) 10031-43-3	221-838-5		01-2119969290-34	<1	Ox. Sol. 2 (H272) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)

Full text of H- and EUH-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General notes: : First aid may be given by the first person 'on the spot'. However, it is generally known that a first aider a person is with first aid training. First aiders should be familiar with the specific conditions and hazards at the workplace.

Show this safety data sheet to the doctor in attendance.

Following inhalation: : Remove the person from the area with the chemical fumes or from the contaminated area without danger for your self . If necessary, give artificial respiration and/ or resuscitation, and place the person in the recovery position so that the airway is open. Seek professional help.

Move to fresh air.

Following skin contact:	:	Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. Consult a physician. Промыть кожу водой/принять душ. Снять/удалить немедленно всю загрязненную одежду. Незамедлительно вызвать врача.
Following eye contact:	:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes Call a physician immediately
Following ingestion	:	Do not induce vomiting. Rinse mouth
Self-protection of the first aider		First aider needs to protect himself.

4.2. Most important symptoms and effects, both acute and delayed

Following inhalation:	:	Acute: Burns, Cough, Dyspnea, Sore throat. Delayed: Burns, Cough, Dyspnea, Sore throat, May cause cancer.
Following skin contact	:	Acute: Burns, Redness, Blisters, Pain. Delayed: Burns, Redness, Blisters, Pain, May cause cancer.
Following eye contact:	:	Acute: Burns, Redness, Pain, Impaired vision, Corneal damage. Delayed: Corneal damage, Burns, Redness, Pain, Impaired vision, May cause cancer.
Following ingestion:		Acute: Burns, Sore throat, Abdominal pain, Burning sensation. Delayed: Burns, Sore throat, Abdominal pain, Burning sensation, May cause cancer.

4.3. Indication of any immediate medical attention and special treatment needed

No data availible

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:	:	Dry chemical, Foam, Water, Carbon dioxide (CO2)
Unsuitable extinguishing media:		High volume water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	:	Not applicable – boils at 100ºC (product contains water)

5.3. Advice for firefighters

Standard procedure for chemical fires

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment:	:	Use suitable protective equipment (see also section 8) to prevent any contamination of skin, eyes and personal clothing..
Emergency procedures:		Consult an expert.

6.1.2. For emergency responders

Protective equipment	Use suitable protective equipment (see also section 8) to prevent any contamination of skin, eyes and personal clothing.
Emergency procedures	Consult an expert.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system

6.3. Methods and material for containment and cleaning up

For containment:	:	Covering of the drains
For cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)
Other information		Clear spills immediately

6.4. Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Measures to prevent fire	:	Always keep ignition sources and product separated. Use a fire suppression system which is suitable for the facility and the potential hazards.
Measures to prevent aerosol and dust generation:	:	Provide sufficient air exchange and/ or exhaust in work rooms
Measures to protect the environment		Do not flush into surface water or sanitary sewer system
Advice on general occupational hygiene		Wash hands thoroughly after handling

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions	:	Storage at 5 - 40 ° C Keep from freezing
Packaging materials		Store in original package or in dedicated storage tank.
Requirements for storage rooms and vessels:		Store in accordance with local and national regulations.
Stoeage class		6.1C (D: TRGS 510)
Further information on storage conditions:		No data available

7.3. Specific end use(s)Информация отсутствует

Recommendations	See our technical data sheet
Concentration to be used	10-15%.
Industrial sector specific solutions:	See our technical data sheet.
Exposure scenario(s):	Exposure scenario is not yet available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Zinc phosphate	
EU - Occupational Exposure (2000/ 39/ EC) - First List of Indicative Occupational Exposure Limit Values - TWAs	Not listed
EU - Occupational Exposure (2000/ 39/ EC) - First List of Indicative Occupational Exposure Limit Values - STELs	Not listed
Slovak Republic - Occupational Exposure Limits - TWAs	0.1 mg/ m ^{3} 2 mg/ m ^{3}
Orthophosphoric acid	
EU - Occupational Exposure (2000/ 39/ EC) - First List of Indicative Occupational Exposure Limit Values -TWAs	1 mg/ m ^{3}
EU - Occupational Exposure (2000/ 39/ EC) - First List of Indicative Occupational Exposure Limit Values -STELs	2 mg/ m ^{3}
Austria - Occupational Exposure Limits - TWAs - (MAK-TMWs)	2 mg/ m ^{3} STEL
Austria - Occupational Exposure Limits - STELs - (MAK-KZWs)	1 mg/ m ^{3} TWA
Belgium - Occupational Exposure Limits - TWAs	1 mg/ m ^{3}
Belgium - Occupational Exposure Limits - STELs	2 mg/ m ^{3} 4 X 15 min
Bulgaria - Occupational Exposure Limits - TWAs	1 mg/ m ^{3}
Bulgaria - Occupational Exposure Limits - STELs	2 mg/ m ^{3}
Czech Republic - Occupational Exposure Limits - TWAs	1.0 mg/ m ^{3}
Denmark - Occupational Exposure Limits - TWAs	2.0 mg/ m ^{3}
Finland - Occupational Exposure Limits - TWAs	1 mg/ m ^{3}
Finland - Occupational Exposure Limits - STELs	1 mg/ m ^{3}
France - Occupational Exposure Limits - TWAs (VME)	1 mg/ m ^{3}
France - Occupational Exposure Limits - STELs (VLCT)	2 mg/ m ^{3}
Germany - TRGS 900 - Occupational Exposure Limits - TWAs (AGWs)	1 mg/ m ^{3}
Hungary - Occupational Exposure Limits - TWAs (AKs)	1 mg/ m ^{3}

Hungary - Occupational Exposure Limits - STELs (CKs)	2 mg/ m ^{3}
Italy - Occupational Exposure Limits - TWAs	1 mg/ m ^{3}
Italy - Occupational Exposure Limits - STELs	2 mg/ m ^{3}
Latvia - Occupational Exposure Limits - TWAs	1 mg/ m ^{3}
Latvia - Occupational Exposure Limits - STELs	2 mg/ m ^{3}
Lithuania - Occupational Exposure Limits - TWAs (IPRDs)	1 mg/ m ^{3}
Lithuania - Occupational Exposure Limits - STELs (TPRDs)	2 mg/ m ^{3}
Luxembourg - Occupational Exposure Limits - TWAs	1 mg/ m ^{3}
Luxembourg - Occupational Exposure Limits - STELs	2 mg/ m ^{3}
Netherlands - Occupational Exposure Limits - TWAs	1 mg/ m ^{3}
Netherlands - Occupational Exposure Limits - STELs	2 mg/ m ^{3}
Norway - Occupational Exposure Limits - TWAs	1 mg/ m ^{3}
Norway - Occupational Exposure Limits - STELs	2 mg/ m ^{3}
Poland - Occupational Exposure Limits - TWAs (NDSs)	1 mg/ m ^{3}
Poland - Occupational Exposure Limits - STELs (NDSChs)	2 mg/ m ^{3}
Portugal - Occupational Exposure Limits - TWAs (VLE-MPs)	1 mg/ m ^{3}
Portugal - Occupational Exposure Limits - STELs (VLE-CDs)	3 mg/ m ^{3}
Romania - Occupational Exposure Limits - TWAs	1 mg/ m ^{3}
Romania - Occupational Exposure Limits - STELs	2 mg/ m ^{3}
Slovak Republic - Occupational Exposure Limits - TWAs	1 mg/ m ^{3}
Slovenia - Occupational Exposure Limits - TWAs	1 mg/ m ^{3}
Slovenia - Occupational Exposure Limits - STELs	2 mg/ m ^{3}
Spain - Occupational Exposure Limits - TWAs (VLA-EDs)	1 mg/ m ^{3}
Spain - Occupational Exposure Limits - STELs (VLA-ECs)	2 mg/ m ^{3}
Sweden - Occupational Exposure Limits - TLVs (LLVs)	1 mg/ m ^{3}
Sweden - Occupational Exposure Limits - STELs (STVs)	2 mg/ m ^{3}
United Kingdom - Workplace Exposure Limits (WELs) - TWAs	1 mg/ m ^{3}
United Kingdom - Workplace Exposure Limits (WELs) - STELs	2 mg/ m ^{3}
Nitric Acid	
EU - Occupational Exposure (2000/ 39/ EC) - First List of Indicative Occupational Exposure Limit Values -TWAs	Not listed
EU - Occupational Exposure (2000/ 39/ EC) - First List of Indicative Occupational Exposure Limit Values -STELs	Not listed
EU - Occupational Exposure (2006/ 15/ EC) - Second List of Indicative Occupational Exposure Limit Values -STELs	2.6 mg/ m 3
Austria - Occupational Exposure Limits - STELs - (MAK-KZWs)	2.6 mg/ m 3
Belgium - Occupational Exposure Limits - STELs	2.6 mg/ m 3
Bulgaria - Occupational Exposure Limits - STELs	2.6 mg/ m 3
Czech Republic - Occupational Exposure Limits - TWAs	1 mg/ m 3
Denmark - Occupational Exposure Limits - STELs	2.6 mg/ m 3
Finland - Occupational Exposure Limits - TWAs	1.3 mg/ m 3
Finland - Occupational Exposure Limits - STELs	2.6 mg/ m 3
France - Occupational Exposure Limits - STELs (VLCT)	2.6 mg/ m 3
Germany - TRGS 900 - Occupational Exposure Limits - TWAs (AGWs)	2.6 mg/ m 3
Hungary - Occupational Exposure Limits - STELs (CKs)	2.6 mg/ m 3
Italy - Occupational Exposure Limits - STELs	2.6 mg/ m 3
Latvia - Occupational Exposure Limits - TWAs	2 mg/ m 3
Latvia - Occupational Exposure Limits - STELs	2.6 mg/ m 3
Lithuania - Occupational Exposure Limits - STELs (TPRDs)	2.6 mg/ m 3

Luxembourg - Occupational Exposure Limits - TWAs	7 mg/ m 3
Luxembourg - Occupational Exposure Limits - STELs	2.6 mg/ m 3
Netherlands - Occupational Exposure Limits - STELs	1.3 mg/ m 3
Norway - Occupational Exposure Limits - TWAs	5 mg/ m 3
Norway - Occupational Exposure Limits - STELs	10 mg/ m 3
Poland - Occupational Exposure Limits - TWAs (NDSs)	1.4 mg/ m 3
Poland - Occupational Exposure Limits - STELs (NDSChs)	2.6 mg/ m 3
Portugal - Occupational Exposure Limits - TWAs (VLE-MPs)	2 ppm
Portugal - Occupational Exposure Limits - STELs (VLE-CDs)	4 ppm
Romania - Occupational Exposure Limits - STELs	2.6 mg/ m 3
Slovenia - Occupational Exposure Limits - TWAs	2.6 mg/ m 3
Slovenia - Occupational Exposure Limits - STELs	2.6 mg/ m 3
Spain - Occupational Exposure Limits - STELs (VLA-ECs)	2.6 mg/ m 3
Sweden - Occupational Exposure Limits - TLVs (LLVs)	1.3 mg/ m 3
Sweden - Occupational Exposure Limits - STELs (STVs)	2.6 mg/ m 3
United Kingdom - Workplace Exposure Limits (WELs) - STELs	2.6 mg/ m 3
Nitric acid, nickel(2+) salt, hexahydrate	
EU - Occupational Exposure (2000/ 39/ EC) - First List of Indicative Occupational Exposure Limit Values -TWAs	Not listed
EU - Occupational Exposure (2000/ 39/ EC) - First List of Indicative Occupational Exposure Limit Values -STELs	Not listed
Germany - TRGS 900 - Occupational Exposure Limits - TWAs (AGWs)	0.03 mg/ m 3
Latvia - Occupational Exposure Limits - TWAs	0.05 mg/ m 3
Lithuania - Occupational Exposure Limits - TWAs (IPRDs)	0.1 mg/ m 3
Norway - Occupational Exposure Limits - TWAs	0.05 mg/ m 3
Norway - Occupational Exposure Limits - STELs	0.15 mg/ m 3
Poland - Occupational Exposure Limits - TWAs (NDSs)	0.25 mg/ m 3
Portugal - Occupational Exposure Limits - TWAs (VLE-MPs)	0.1 mg/ m 3
Romania - Occupational Exposure Limits - TWAs	0.1 mg/ m 3
Romania - Occupational Exposure Limits - STELs	0.5 mg/ m 3
Spain - Occupational Exposure Limits - TWAs (VLA-EDs)	0.1 mg/ m 3
Sweden - Occupational Exposure Limits - TLVs (LLVs)	0.1 mg/ m 3
United Kingdom - Workplace Exposure Limits (WELs) - TWAs	0.1 mg/ m 3
United Kingdom - Workplace Exposure Limits (WELs) - STELs	0.3 mg/ m 3
Nitric acid, copper(2+) salt, hydrate (2:1:3)	
EU - Occupational Exposure (2000/ 39/ EC) - First List of Indicative Occupational Exposure Limit Values -TWAs	Not listed
EU - Occupational Exposure (2000/ 39/ EC) - First List of Indicative Occupational Exposure Limit Values -STELs	Not listed
Hungary - Occupational Exposure Limits - STELs (CKs)	4 mg/ m 3
Latvia - Occupational Exposure Limits - TWAs	0.5 mg/ m 3
Lithuania - Occupational Exposure Limits - TWAs (IPRDs)	1 mg/ m 3 0.2 mg/ m 3
Netherlands - Occupational Exposure Limits - TWAs	0.1 mg/ m 3
Poland - Occupational Exposure Limits - TWAs (NDSs)	0.2 mg/ m 3
Slovak Republic - Occupational Exposure Limits - TWAs	1 mg/ m 3
Spain - Occupational Exposure Limits - TWAs (VLA-EDs)	0.1 mg/ m 3
Sweden - Occupational Exposure Limits - TLVs (LLVs)	0.01 mg/ m 3

8.2. Exposure controls

Technical measures to prevent exposure : Ensure adequate ventilation, especially in confined areas.

Personal protection equipment :

Eye and face protection: : Wear eye/ face protection

Skin protection : Hand protection:
Neoprene gloves
For example: Neoprene gloves (0.75 mm - 30 min)
Other skin protection:
Long sleeved clothing
Wear safety shoes with oil resistant soles. Wear long sleeved protective clothing.

Respiratory protection : Adequate ventilation is recommended

Thermal hazards : Product represents no thermal hazards

Environmental exposure controls : Do not flush into surface water or sanitary sewer system

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Основные физико-химические свойства

Appearancee	:	Green liquid
Odour	:	Characteristics
Odour threshold	:	Mild odour
pH	:	2,0 (sol. 10 g/l)
Melting point / freezing point (°C	:	No data available
Initial boiling point and boiling range (°C)	:	100
Flash point (°C)	:	Not applicable - boils at 100ºC (product contains water)
Evaporarion rate (BuAc =1)	:	No data available
Flammability (solid, gas)	:	No data available
Upper/lower flammability or explosive limits	:	No data available
Vapour pressure (kPa)	:	No data available
Vapiour density (air=1)	:	No data available
Relative density (g/cm³) at 40°C	:	1,512
Solubility(ies) in water	:	Soluble
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature (°C)	:	No data available
Decomposition temperature (°C)	:	No data available
Viscosity (mm²/s) at 20 °C	:	1.00
Explosive properties	:	Product is not explosive
Oxidising properties	:	Product is not an oxidiser

9.2. Other information

Pourpoint (°C) <0

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Stable under recommended storage conditions

10.2. Chemical stability

Stable under recommended storage conditions

10.3. Possibility of hazardous reactions

Stable under recommended storage conditions

10.4. Conditions to avoid

Not known

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

None under normal use

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Product data:

ATEmix - Oral (mg/kg): >2000
ATEmix - Dermal (mg/kg): >2000
ATEmix - Inhalation (mg/l/4 h - vapours): >20

Component data:

Chemical Name	LD50 - Oral, Rat (mg/kg)	LD50 - Dermal, Rabbit (mg/kg)	LC50 - Inhalation, Rat, 4h (mg/l)
Zinc phosphate 7779-90-0	>2000	>2000	No data available
Orthophosphoric acid 7664-38-2	>2000	>2000	No data available
Nitric Acid 7697-37-2	1620	No data available	No data available
Nitric acid, nickel(2+) salt, hexahydrate 13478-00-7	361.9	No data available	2.48
Nitric acid, copper(2+) salt, hydrate (2:1:3) 10031-43-3	>300 - 2000	No data available	No data available

Skin corrosion/irritation

Product data:

Results: No data available

Serious eye damage/irritation

Product data:

Results: No data available

Respiratory or skin sensitisation

Product data:

Results: No data available

Germ cell mutagenicity

Product data:

Results: No data available

Carcinogenicity

Product data:

Results: No data available

Reproductive toxicity

Product data:

Results: No data available

Summary of evaluation of the CMR properties

Product data:

Results: No data available

STOT - single exposure

Product data:

Results: No data available

STOT - repeated exposure
Product data:
Results: No data available
Aspiration hazard
Product data:
Results: No data available

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Acute (short-term) toxicity
Product data:
LC50 (Fish - 96h): <1 mg/ l
EC50 (Water Flea - 48h): <1 mg/ l
IC50 (Algae - 72h): <1 mg/ l

Component data:

Chemical Name	LC50 (Fish - 96h)	EC50 (Water Flea - 48h)	IC50 (Algae - 72h)
Zinc phosphate 7779-90-0	0.09 mg/ l	< 1 mg/ l	< 1 mg/ l
Orthophosphoric acid 7664-38-2	3.25 mg/ l (Leponis macrochirus)	>100 mg/ l (Daphnia magna)	>100 mg/ l (Plantas acuaticas)
Nitric Acid 7697-37-2	72 mg/ L (Gambusia affinis)	4.4 mg/ l (Ceriodaphnia dubia)	>100 mg/ l
Nitric acid, nickel(2+) salt, hexahydrate 13478-00-7	0.23 mg/ l (Pimephales promelas)	0.013 mg/ l (Ceriodaphnia dubia)	33 mg/ l (Scenedesmus accuminatus)
Nitric acid, copper(2+) salt, hydrate (2:1:3) 10031-43-3	>100 mg/ l	>100 mg/ l	>100 mg/ l

Chronic (long-term) toxicity

Product data:
LC50 (Fish - 96h): <1 mg/ l
EC50 (Water Flea - 48h): <1 mg/ l
IC50 (Algae - 72h): <1 mg/ l

Biodegradation: No data available Partition coefficient n-octanol /waterNo data available (log Kow):
Bioconcentration factor (BCF) No data available

Component data:

Chemical Name	LC50 (Fish - 96h)	EC50 (Water Flea - 48h)	IC50 (Algae - 72h)
Zinc phosphate 7779-90-0	0.09 mg/l	< 1 mg/ l	< 1 mg/l
Orthophosphoric acid 7664-38-2	3.25 mg/l (Leponis macrochirus)	>100 mg/ l (Daphnia magna)	>100 mg/l (Plantas acuaticas)
Nitric Acid 7697-37-2	72 mg/L (Gambusia affinis)	4.4 mg/ l (Ceriodaphnia dubia)	>100 mg/l
Nitric acid, nickel(2+) salt, hexahydrate 13478-00-7	0.23 mg/l (Pimephales promelas)	0.013 mg/ l (Ceriodaphnia dubia)	33 mg/l (Scenedesmus accuminatus)
Nitric acid, copper(2+) salt, hydrate (2:1:3) 10031-43-3	>100 mg/l	>100 mg/ l	>100 mg/l

Chemical Name	Biodegradation	Partition coefficient n-octanol/water (log Kow)	Bioconcentration factor (BCF)
Zinc phosphate 7779-90-0	No data available	No data available	No data available
Orthophosphoric acid 7664-38-2	No data available	No data available	No data available
Nitric Acid 7697-37-2	No data available	No data available	No data available
Nitric acid, nickel(2+) salt, hexahydrate 13478-00-7	No data available	No data available	No data available
Nitric acid, copper(2+) salt, hydrate (2:1:3) 10031-43-3	No data available	No data available	No data available

12.2. Persistence and degradability

Product data:

Abiotic Degradation: No data available
Physical- and photo-chemical elimination No data available
Biodegradation: No data available

Component data:

Chemical Name	Abiotic Degradation	Physical- and photo-chemical elimination	Biodegradation
Zinc phosphate 7779-90-0	No data available	No data available	No data available
Orthophosphoric acid 7664-38-2	No data available	No data available	No data available
Nitric Acid 7697-37-2	No data available	No data available	No data available
Nitric acid, nickel(2+) salt, hexahydrate 13478-00-7	No data available	No data available	No data available
Nitric acid, copper(2+) salt, hydrate (2:1:3)	No data available	No data available	No data available

12.3. Bioaccumulative potential

Product data:

Partition coefficient n-octanol /waterNo data available
(log Kow):
Bioconcentration factor (BCF) No data available

Component data:

Chemical Name	Partition coefficient n-octanol /water (log Kow)	Bioconcentration factor (BCF)
Zinc phosphate 7779-90-0	No data available	No data available
Orthophosphoric acid 7664-38-2	No data available	No data available
Nitric Acid 7697-37-2	No data available	No data available
Nitric acid, nickel(2+) salt, hexahydrate 13478-00-7	No data available	No data available
Nitric acid, copper(2+) salt, hydrate (2:1:3) 10031-43-3	No data available	No data available

12.4. Mobility in soil

Product data:
Known or predicted distribution to environmental compartments: No data available
Surface tension: No data available
Component data:

Chemical Name	Known or predicted distribution to environmental compartments	Surface tension
Zinc phosphate 7779-90-0	No data available	No data available
Orthophosphoric acid 7664-38-2	No data available	No data available
Nitric Acid 7697-37-2	No data available	No data available
Nitric acid, nickel(2+) salt, hexahydrate 13478-00-7	No data available	No data available
Nitric acid, copper(2+) salt, hydrate (2:1:3) 10031-43-3	No data available	No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effect

No data available

12.7 Additional information

No data available

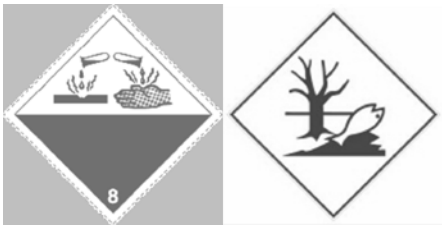
SECTION13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Packaging data: : Use a European return program for empty packaging. For example: ncg-europe.com.

Product data: As delivered:
16 03 - off-specification batches and unused products
16 03 05* - organic wastes containing hazardous substances

SECTION 14: TRANSPORT INFORMATION



14.1 UN number

UN 3264

14.2 UN proper shipping name

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Contains Phosphoric acid and Nitric acid)

14.3 Transport hazard class(es)

Hazard class: 8

14.4 Packing group

Packing group: II

14.5 Environmental hazards

MARINE POLLUTANT / ENVIRONMENTALLY HAZARDOUS

14.6 Special precautions for user

Tunnel restriction code: (E)

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Subsidiary information: MARINE POLLUTANT / ENVIRONMENTALLY HAZARDOUS

EmS: F-A, S-B

Segregation group: 1 Acids

SECTION 15: REGULATORY INFORMATION

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

EU regulations
Authorisations and/or restrictions on use

Authorisations:

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

ANNEX XIV - LIST OF SUBSTANCES SUBJECT TO AUTHORISATION
Product does not contain substances as mentioned in this ANNEX.

Restrictions on use:

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

ANNEX XIII - CRITERIA FOR THE IDENTIFICATION OF PERSISTENT, BIOACCUMULATIVE AND TOXIC SUBSTANCES, AND VERY PERSISTENT AND VERY BIOACCUMULATIVE SUBSTANCES
Product does not contain substances as mentioned in this ANNEX.

ANNEX XVII - RESTRICTIONS ON THE MANUFACTURE, PLACING ON THEMARKET AND USE OF CERTAIN DANGEROUSSUBSTANCES, PREPARATIONS AND ARTICLES
Product does not contain substances as mentioned in this ANNEX.

Chemical Name	**EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances**
Nitric acid, nickel(2+) salt, hexahydrate 13478-00-7	Use restricted. See item 27.

Other EU regulations

REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents
Product is not subject to this regulation.

REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals
Product does not contain components as mentioned in this regulation.

COUNCIL REGULATION (EC) No 111/2005 of 22 December 2004 laying down rules for the monitoring of trade between the Community and third countries in drug precursors
Product does not contain components as mentioned in this regulation.

REGULATION (EC) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer
Product does not contain components as mentioned in this regulation.
REGULATION (EU) No 98/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 January 2013 on the marketing and use of explosives precursors

Product does not contain components as mentioned in this regulation.

Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste (notified under document number C(2000) 1147) (Text with EEA relevance) (2000/532/EC)

Waste codes / waste designations according to LoW:

As delivered: 16 03 - off-specification batches and unused products
16 03 05* - organic wastes containing hazardous substances

COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items
Product does contain components as mentioned in this regulation.

National regulations

In Spain
Product data:

In France
Product data:
Tableaux de maladies professionnelles: 34

In Germany
Product data:
Water hazard classes (Wassergefährdungsklassen): 2 (S)

In Italy
Product data:
Altre disposizioni di normativa vigente: limite di soglia (LTV) ed indicatori biologici di esposizione (IBE) ACGIH 2001 Protezione dei lavoratori contro i rischi derivanti dall'esposizione ad agenti chimici, fisici e biologici durante il lavoro (DL212 del 30/ 07/ 90)
Norme generali per l'igiene sul lavoro (DPR 303 del 19/ 3/ 56)
Regolamenti e tabelle sulle malattie professionali nell'industria (DPR 336 del 13/ 04/ 94) D.Lgs. 81/ 2008 del 9 Aprile 2008 e successive modifiche
Rischi incidenti rilevanti (Seveso bis - DL 334/ 99) Norme sugli scarichi (DM 51 del 12/ 7/ 90)
Norme sull'inquinament o atmosferico (DPR del 12/ 7/ 90 e del 25/ 7/ 91) Norme per la tutela della acque (DL 152 del 11/ 5/ 99)
Norme sullo smaltimento e sul trasporto dei rifiuti pericolosi (DL 22/ 97 e 389/ 97)
e attuazioni
Testo unico su classificazione, imballaggio ed etichettatura sostanza pericolose con recepimento fino alla Directtiva 2004/ 73/ CE (29° adeguamento al progresso technico della directiva 67/ 548/ CE)
Norme per la compilazione della Scheda di Sicurezza con recepimento della directtiva 2001/ 58/ EC

In Poland
Product data:
The Regulation (EC) No 1907/ 2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/ 45/ EC of the trades and repealing the trades the Regulation repealing Council Regulation (EEC) nr 793/ 93.The regulation lation (EC) nr 1488/ 94, as well as Council Directive 76/ 769/ EEC and Commission Directives 91/ 155/ EEC, 93/ 67/ EEC, 93/ 105/ EC and 2000/ 21/ EC, as amended Regulation of the European Parliament and of the Council (EC) nr 1272/ 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing the Directives 1999/ 45/ EC, Directive 67/ 548/ EEC and amending the Regulation (EC) nr 1907/ 2006, with changes.Ordinance of the Minister of Health of 30 December 2004 on safety and health relationship are tied to the existence of chemical agents (Dz.U.2005nr11poz.86), as amended.The Act of 25 February 2011 chemical substances and mixtures (Dz.U.2011nr63poz.322).Ordinance of the Minister of Health of 20 April 2012 on the labeling of chemical substances and mixtures, and certain mixtures (Dz.U.2012nr0poz.445).Ordinance of the Minister of Labour and Social Policy of 6 June 2014 on maximum permissible concentration assumptions Nate assumptions of harmful factors in the working environment.The Act of 27 April 2001 r.o waste (Dz.U.2001 No. 62 item 628).Ordinance of the Minister of Environment of 27 September 2001. on waste (Dz.U.Nr112, item 1206).Regulation (EU) No 453/ 2010 of 20 May 2010 amending the CYM The Regulation (EC) No 1907/ 2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/ mixture by the supplier

SECTION16: OTHER INFORMTION

Abbreviations and acronyms

CLP - Regulation (EC) No 1272/ 2008 on classification, labelling and packaging of substances and mixtures REACH - Regulation (EC) No 1907/ 2006 on the Registration, Evaluation, Authorisation and Ristriction of Chemicals
Key literature references and sources for data Compilation of safety data sheet:
Regulation (EC) No 1907/ 2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/ 45/ EC and repealing Council Regulation (EEC) No 793/ 93 and Commission Regulation (EC) No 1488/ 94 as well as Council Directive 76/ 769/ EEC and Commission Directives 91/ 155/ EEC, 93/ 67/ EEC, 93/ 105/ EC and 2000/ 21/ EC

Amended by:
Commission Regulation (EU) No 453/ 2010 of 20 May 2010 amending Regulation (EC) No 1907/ 2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance)

Classification procedure: Calculation method

Full text of H-Statements referred to under section 3
H272 - May intensify fire; oxidizer
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H400 - Very toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects
H302 - Harmful if swallowed
H332 - Harmful if inhaled H315 - Causes skin irritation
H341 - Suspected of causing genetic defects if inhaled
H350i - May cause cancer by inhalation
H360D - May damage the unborn child
H372 - Causes damage to organs through prolonged or repeated exposure if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317 - May cause an allergic skin reaction
H410 - Very toxic to aquatic life with long lasting effects
H290 - May be corrosive to metals
H331 - Toxic if inhaled

Training advice
The information contained in this safety data sheet must be available to the professional user.The professional user of this product must be adequately informed about the possible hazards of this product.The professional user of this product must be adequately trained in the safe handling and use of chemical products.

Further information Disclaimer
This product's safety information is provided to assist our customers in assessing compliance with
safety/ health/ environmental regulations. The information contained herein is based on data available to us and is believed to be accurate. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or the hazards connected with the use of the product. Since the use of this product is within the exclusive control of the user, it is the user's obligation to determine the conditions for safe use of the product. Such conditions should comply with all regulations concerning the product.