NEUCE O FUTURO DA TINTA

RUST CONVERTER
Code: 910000

Version: 8 Revision: 13/12/2019 Previous revision: 31/05/2017 Date of printing: 13/12/2019

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

1.1 PRODUCT IDENTIFIER: RUST CONVERTER
EC: 205-634-3 Code: 910000

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:
Intended uses (main technical functions): [X] Industrial [X] Professional [_] Consumers
Reconversor de ferrugem.
Uses advised against:
 # This product is not recommended for any use or sector of use (industrial, professional or consumer) other than those previously listed as 'Intended or identified uses'.
Restrictions on manufacture, placing on market and use, according to Annex XVII of Regulation (EC) No. 1907/2006:
 # Not restricted.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:
NEUCE - Indústria de Tintas, S.A.
Rua Francisco Rocha - Aptdo. 4514 - 3700-892 - Romariz SJM (Portugal)
Phone: +351 256 840040 - Fax: +351 256 840049
E-mail address of the person responsible for the Safety Data Sheet:
e-mail: geral@neuce.pt

1.4 EMERGENCY TELEPHONE NUMBER: +351 256 840041 (9:00-18:30 h.) (working hours)

SECTION 2 : HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

 # Classification in accordance with Regulation (EU) No. 1272/2008~2018/1480 (CLP):
WARNING: Eye Irrit. 2:H319

Danger class	Classification of the substance	Cat.	Routes of exposure	Target organs	Effects
Physicochemical: Not classified	Eye Irrit. 2:H319	Cat.2	Eyes	Eyes	Irritation
Human health: 					
Environment: Not classified					

Full text of hazard statements mentioned is indicated in section 16.

2.2 LABEL ELEMENTS:

 # This product is labelled with the signal word WARNING in accordance with Regulation (EU) No. 1272/2008~2018/1480 (CLP)

Hazard statements:
H319 Causes serious eye irritation.
Precautionary statements:
P102 Keep out of reach of children.
P337+P313 If eye irritation persists: Get medical attention.
P280B Wear protective gloves and eye 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.
Supplementary statements:
None.
Substances that contribute to classification:
Oxalic acid

2.3 OTHER HAZARDS:
Hazards which do not result in classification but which may contribute to the overall hazards of the substance:
Other physicochemical hazards: *# No other relevant adverse effects are known.*
Other adverse human health effects: *# May be irritating to eyes and skin.*
Other negative environmental effects: *# Do not fulfil the PBT/vPvB criteria.*

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1

SUBSTANCES :

 # This product is a substance in aqueous solution.

Chemical description:

Oxalic acid in aqueous media.

INGREDIENTS:

< 2,5 % 	Oxalic acid CAS: 144-62-7 , EC: 205-634-3 CLP: Danger: Acute Tox. (skin) 4:H312 | Acute Tox. (oral) 4:H302 | Eye Dam. 1:H318	Index No. 607-006-00-8 < Autoclassified

Impurities:

 # Does not contain other components or impurities which will influence the classification of the product.

Stabilizers:

None

Reference to other sections:

For more information on hazardous ingredients, see sections 8, 11, 12 and 16.

SUBSTANCES OF VERY HIGH CONCERN (SVHC):

 # List updated by ECHA on 15/01/2019.

Substances SVHC subject to authorisation, included in Annex XIV of Regulation (EC) no. 1907/2006:

None

Substances SVHC candidate to be included in Annex XIV of Regulation (EC) no. 1907/2006:

None

PERSISTENT, BIOACCUMULABLE AND TOXIC PBT, OR VERY PERSISTENT AND VERY BIOACCUMULABLE VPVB SUBSTANCES:

Do not fulfil the PBT/vPvB criteria.

3.2

MIXTURES:

Not applicable (substance).

SECTION 4 : FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST-AID MEASURES:

 # Symptoms may occur after exposure, so that in case of direct exposure to the product, when in doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. Lifeguards should pay attention to self-protection and use the recommended protective equipment if there is a possibility of exposure. Wear protective gloves when administering first aid.

Route of exposure	Symptoms and effects, acute and delayed	Description of first-aid measures
Inhalation:	*# Inhalation produces burning sensation, coughing, headache, breathlessness, nausea and sore throat. Inhalation may result in pulmonary oedema. Symptoms of pulmonary oedema may not often be apparent until after several hours and become worse after physical effort.*	*# Remove the patient out of the contaminated area into the fresh air. If breathing is irregular or stops, administer artificial respiration. If the person is unconscious, place in appropriate recovery position. Keep the patient warm and at rest until medical attention arrives.*
Skin:	*# Skin contact causes redness, burns and pain.*	*# Remove immediately contaminated clothing. Wash thoroughly the affected area with plenty of cold or lukewarm water and a solution of 5% sodium bicarbonate. If irritation persists, consult a physician.*
Eyes:	*# Contact with the eyes produces redness, pain and serious burns. Contact with the eyes produces redness, pain, serious burns and loss of vision.*	*# Remove contact lenses. Rinse eyes copiously by irrigation with plenty of clean, fresh water for at least 15 minutes, holding the eyelids apart, until the irritation is reduced. Obtain medical attention without delay, preferably from an ophthalmologist. If the eyes are not treated immediately, damage to sight may be permanent.*
Ingestion:	*# If swallowed may cause sore throat, gastric upset and abdominal pain.*	*# If swallowed in large dose, seek immediate medical attention. Due to its acid condition, the effects can be reduced to a minimum by drinking plenty of water, to which milk of magnesia has been added. Do not induce vomiting, unless directed to do so by medical personnel. Keep the patient at rest.*

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:
The main symptoms and effects are indicated in sections 4.1 and 11.1

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:
Notes to physician: *# Treatment should be directed at the control of symptoms and the clinical condition of the patient.*
Antidotes and contraindications: *# Not available.*

SECTION 5 : FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:
 # In case of fire in the surroundings, all extinguishing agents are allowed.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:
 # As consequence of combustion or thermal decomposition, hazardous products may be produced: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products may be a hazard to health.

5.3 ADVICE FOR FIREFIGHTERS:
Special protective equipment: *# Depending on magnitude of fire, heat-proof protective clothing may be required, appropriate independent breathing apparatus, gloves, protective glasses or face masks and boots. If the fire-proof protective equipment is not available or is not being used, combat fire from a sheltered position or from a safe distance. The standard EN469 provides a basic level of protection for chemical incidents.*
Other recommendations: *# Cool with water the tanks, cisterns or containers close to sources of heat or fire. Bear in mind the direction of the wind. Do not allow fire-fighting residue to enter drains, sewers or water courses.*

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:
 # Avoid direct contact with this product.

6.2 ENVIRONMENTAL PRECAUTIONS:
 # Avoid contamination of drains, surface or subterranean water and soil. In the case of large scale spills or when the product contaminates lakes, rivers or sewages, inform the appropriate authorities in accordance with local regulations.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:
 # Contain and mop up spills with absorbent materials (sawdust, earth, sand, vermiculite, diatomaceous earth, etc..). Transfer to a suitable container for recovery or elimination. Neutralize with carbonate or sodium bicarbonate. Keep the remains in a closed container. Finally, clean up the area with plenty of water.

6.4 REFERENCE TO OTHER SECTIONS:
For contact information in case of emergency, see section 1.
For information on safe handling, see section 7.
For exposure controls and personal protection measures, see section 8.
For waste disposal, follow the recommendations in section 13.

SECTION 7 : HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

 # Comply with the existing legislation on health and safety at work.

General recommendations:

 # Avoid any type of leakage or escape. Keep the container tightly closed.

Recommendations for the prevention of fire and explosion risks:

 # The product is not liable to ignite, deflagrate or explode, and does not sustain the combustion reaction by oxygen from air in the environment in which it is, so it is not included in the scope of Directive 94/9/EC concerning equipment and protective systems intended for use in potentially explosive atmospheres.

Recommendations for the prevention of toxicological risks:

 # Do not eat, drink or smoke while handling. After handling, wash hands with soap and water. For exposure controls and personal protection measures, see section 8.

Recommendations for the prevention of environmental contamination:

 # It is not considered a danger to the environment. In the case of accidental spillage, follow the instructions indicated in section 6.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

 # Forbid the entry to unauthorized persons. Keep out of reach of children. Keep away from sources of heat. In order to avoid leakages, the containers, after use, should be closed carefully and placed in a vertical position. For more information, see section 10.

Class of storage : *# According to current legislation.*

Maximum storage period : *# 24. months*

Temperature interval : *# min: 5. ºC, max: 35. ºC (recommended).*

Incompatible materials:

 # Keep away from oxidizing agents, alkalis.

Type of packaging:

 # According to current legislation. Polyethylene containers. Polyethylene bags. Avoid ordinary steel. Avoid light alloys.

Limit quantity (Seveso III): *# Directive 2012/18/EU:*

Not applicable (the classification criteria are not met).

7.3 SPECIFIC END USES:

 # For the use of this product do not exist particular recommendations apart from that already indicated.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1

CONTROL PARAMETERS:

 # If a product contains ingredients with exposure limits, may be necessary a personnel monitoring, work place or biological, to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to EN689, EN14042 and EN482 standard concerning methods for assesing the exposure by inhalation to chemical agents, and exposure to chemical and biological agents. Reference should be also made to national guidance documents for methods for the determination of dangerous substances.

OCCUPATIONAL EXPOSURE LIMIT VALUES (TLV)

AGCIH 2018	Year	TLV-TWA ppm	TLV-TWA mg/m3	TLV-STEL ppm	TLV-STEL mg/m3	Remarks
Oxalic acid	1976	-	1.0	-	2.0	

TLV - Threshold Limit Value, TWA - Time Weighted Average, STEL - Short Term Exposure Limit.

BIOLOGICAL LIMIT VALUES:
Not available

DERIVED NO-EFFECT LEVEL (DNEL):
Derived no-effect level (DNEL) is a level of exposure that is considered safe, derived from toxicity data according to specific guidances included in REACH. DNEL values may differ from a occupational exposure limit (OEL) for the same chemical. OEL values may come recommended by a particular company, a government regulatory agency or an organization of experts. Although considered protective of health, the OEL values are derived by a process different of REACH.

Derived no-effect level, workers: - Systemic effects, acute and chronic: Not available (without data of registration REACH).	DNEL Inhalation mg/m3 - -	DNEL Cutaneous mg/kg bw/d - -	DNEL Oral mg/kg bw/d - -
Derived no-effect level, workers: - Local effects, acute and chronic: Not available (without data of registration REACH).	DNEL Inhalation mg/m3 - -	DNEL Cutaneous mg/cm2 - -	DNEL Eyes mg/cm2 - -

Derived no-effect level, general population:
Not applicable (product for professional or industrial use).

PREDICTED NO-EFFECT CONCENTRATION (PNEC):

Predicted no-effect concentration, aquatic organisms: - Fresh water, marine water and intermittent release: Not available (without data of registration REACH).	PNEC Fresh water mg/l -	PNEC Marine mg/l -	PNEC Intermittent mg/l -
- Wastewater treatment plants (STP) and sediments in fresh- and marine water: Not available (without data of registration REACH).	PNEC STP mg/l -	PNEC Sediments mg/kg dw/d -	PNEC Sediments mg/kg dw/d -
Predicted no-effect concentration, terrestrial organisms: - Air, soil and effects for predators and humans: Not available (without data of registration REACH).	PNEC Air mg/m3 -	PNEC Soil mg/kg dw/d -	PNEC Oral mg/kg dw/d -

8.2 EXPOSURE CONTROLS:

ENGINEERING MEASURES:

 # Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction.

Protection of respiratory system: *# Avoid the inhalation of product.*
Protection of eyes and face: *# It is recommended to install water taps, sources or eyewash bottles with clean water close to the working area.*
Protection of hands and skin: *# It is recommended to install water taps or sources with clean water close to the working area. Barrier creams may help to protect the exposed areas of the skin. Barrier creams should not be applied once exposure has occurred.*

OCCUPATIONAL EXPOSURE CONTROLS: Regulation (EU) No. 2016/425:
As a general measure on prevention and safety in the work place, we recommend the use of a basic personal protection equipment (PPE), with the corresponding marking. For more information on personal protective equipment (storage, use, cleaning, maintenance, type and characteristics of the PPE, protection class, marking, category, CEN norm, etc..), you should consult the informative brochures provided by the manufacturers of PPE.

Mask:	*# No.*
Safety goggles:  ✓	*# Safety goggles with suitable lateral protection (EN166). Clean daily and disinfect at regular intervals in accordance with the instructions of the manufacturer.*
Face shield:	*# No.*
Gloves:  ✓	*# Nitrile rubber gloves, thick >0.11 mm (EN374). Recommended minimal level 6, breakthrough time >480 min (protection for permanent contact). When short contact with the product is expected, use gloves with a protection level 2 or higher should be used, with a breakthrough time >30 min.The breakthrough time of the selected glove material should be in accordance with the pretended period of use. There are several factors (for example, temperature), they do in practice the period of use of a protective gloves resistant against chemicals is clearly lower than the established standard EN374. For the selection of a specific type of gloves for specific applications, with certain duration, it should take into account relevant factors to the workplace (without limitation to them), such as: other chemicals which may be handled, physical requirements (protection against cutting/puncture, dextery, thermal protection), potential allergy to he material with which the gloves are made, etc.. Due to the wide variety of circumstances and possibilities, the instructions/specifications provided by the glove supplier should be taken into account.If used in solution or mixed with other substances, or under conditions different from the EN374, please contact the supplier of the approved gloves. Use the proper technique of removing gloves (without touching glove´s outer surface) to avoid contact of the product with the skin. The gloves should be immediately replaced when any sign of degradation is noted.*
Boots:	*# No.*
Apron:	*# No.*
Clothing:	*# No.*

Thermal hazards:
 # Not applicable (the product is handled at room temperature).

ENVIRONMENTAL EXPOSURE CONTROLS:
 # Avoid any spillage in the environment.

Spills on the soil: *# Prevent contamination of soil.*

Spills in water: *# Because of its acidity, it is dangerous to aquatic organisms. Do not allow to escape into drains, sewers or water courses.*
- Water Management Act: *# This product does not contain any substance included in the list of priority substances in the field of water policy under Directive 2000/60/EC~2013/39/EU.*

Emissions to the atmosphere: *# Not applicable.*

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Appearance

- Physical state	:	# *Liquid.*		
- Colour	:	Colourless.		
- Odour	:	# *Characteristic.*		
- Odour threshold	:	# *Not available*		

pH-value

- pH	:	# *Acide*		

Change of state

- Melting point	:	# *Not available*		
- Initial boiling point	:	# *Not applicable*		

Density

- Vapour density	:	# *< 1 (lighter than air).*		
- Relative density	:	# *1. ± 0.1*	# *at 20/4ºC*	Relative water

Stability

- Decomposition temperature	:	# *Not applicable (thermally stable).*		

Viscosity:

- Viscosity (flow time)	:	# *15. ± 2.*	# *sec.FC4 20ºC*	

Volatility:

- Evaporation rate	:	# *40.5*	nBuAc=100 25ºC	Relative
- Vapour pressure	:	# *17.5*	# *mmHg at 20ºC*	
- Vapour pressure	:	# *12.3*	kPa at 50ºC	

Solubility(ies)

- Solubility in water:	:	# *Miscible*		
- Liposolubility	:	# *Not applicable (inorganic substance).*		

Flammability:

- Flash point	:	# *Not flammable*		
- Autoignition temperature	:	# *Not applicable (do not sustain combustion).*		

Explosive properties:
 # In the molecule there is no chemical groups associated with explosive properties.
Oxidizing properties:
 # Not classified as oxidizing product.

9.2 OTHER INFORMATION:

- Surface tension	:		76.7 din/cm at 20ºC	
- Heat of combustion	:	#	*7* Kcal/kg	

The values indicated do not always coincide with product specifications. The data for the product specifications can be found in the corresponding technical data sheet. For additional information concerning physical and chemical properties related to safety and environment, see sections 7 and 12.

SECTION 10 : STABILITY AND REACTIVITY

10.1 REACTIVITY:
Corrosivity to metals: *# Not classified as a product corrosive to metals.*
Pyrophorical properties: *# It is not pyrophoric.*

10.2 CHEMICAL STABILITY:
 # Stable under recommended storage and handling conditions. Does not polymerize.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:
 # Hydrolyzes in contact with water, producing a corrosive acid solution. Reacts with oxidizing agents, causing risk of fire and explosion.

10.4 CONDITIONS TO AVOID:
Heat: *# Keep away from sources of heat.*
Light: *# Not applicable.*
Air: *# The product is not affected by exposure to air, but should not be left the containers open.*
Pressure: *# Not relevant.*
Shock: *# The product is not sensitive to shocks, but as a recommendation of a general nature should be avoided bumps and rough handling to avoid dents and breakage of packaging, especially when the product is handled in large quantities, and during loading and download operations.*

10.5 INCOMPATIBLE MATERIALS:
 # Keep away from oxidizing agents, alkalis.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:
 # As consequence of thermal decomposition, hazardous products may be produced: carbon monoxide, formic acid and formaldehyde.

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

ACUTE TOXICITY:

Dose and lethal concentrations :	LD50 (OECD 401) mg/kg bw oral	LD50 (OECD 402) mg/kg bw cutaneous	LC50 (OECD 403) mg/m3·4h inhalation
Oxalic acid	375. Rat	> 2000. Rabbit	
Estimates of acute toxicity (ATE) :	**ATE mg/kg bw oral**	**ATE mg/kg bw cutaneous**	**ATE mg/m3·4h inhalation**
Oxalic acid	500.*	1100.*	-

(*) - Point estimates of acute toxicity corresponding to the classification category (see GHS/CLP Table 3.1.2). These values are designed to be used in the calculation of the ATE for classification of a mixture based on its components and do not represent test results.
(-) - The components that are assumed to have no acute toxicity at the upper threshold of category 4 for the corresponding exposure route are ignored.

No observed adverse effect level
Not available
Lowest observed adverse effect level
Not available

INFORMATION ON LIKELY ROUTES OF EXPOSURE: Acute toxicity:

Routes of exposure	Acute toxicity	Cat.	Main effects, acute and/or delayed	Criteria
Inhalation: **Not classified**	ATE > 20000 mg/m3	-	*# Not classified as a product with acute toxicity if inhaled.*	GHS/CLP 3.1.2. OECD 403
Skin: **Not classified**	ATE > 2000 mg/kg bw	-	*# Not classified as a product with acute toxicity in contact with skin.*	GHS/CLP 3.1.2. OECD 402
Eyes: Not classified	Not available	-	*# Not classified as a product with acute toxicity by eye contact.*	GHS/CLP 1.2.5.
Ingestion: **Not classified**	ATE > 2000 mg/kg bw	-	*# Not classified as a product with acute toxicity if swallowed.*	GHS/CLP 3.1.2. OECD 401

CORROSION / IRRITATION / SENSITISATION:

Danger class	Target organs	Cat.	Main effects, acute and/or delayed	Criteria
Respiratory corrosion/irritation: Not classified	-	-	*# Not classified as a product corrosive or irritant by inhalation.*	GHS/CLP 1.2.6. 3.8.2.2.1.
Skin corrosion/irritation: Not classified	-	-	*# Not classified as a product corrosive or irritant in contact with skin.*	GHS/CLP 3.2.2. OECD 404
Serious eye damage/irritation:	Eyes	Cat.2	*# IRRITANT: Causes serious eye irritation.*	GHS/CLP 3.3.2. OECD 405
Respiratory sensitisation: Not classified	-	-	*# Not classified as a product sensitising by inhalation.*	GHS/CLP 3.4.2.1.
Skin sensitisation: Not classified	-	-	*# Not classified as a product sensitising by skin contact.*	GHS/CLP 3.4.2.2. OECD 406

ASPIRATION HAZARD:

Danger class	Target organs	Cat.	Main effects, acute and/or delayed	Criteria
Aspiration hazard: **Not classified**	-	-	*# Not classified as a product hazardous by aspiration.*	GHS/CLP 3.10.2.

SPECIFIC TARGET ORGANS TOXICITY (STOT): Single exposure (SE) and/or Repeated exposure (RE):
 # Not classified as a dangerous product for target organs.

CMR EFFECTS:
Carcinogenic effects: *# It is not considered as a carcinogenic product.*
Genotoxicity: *# It is not considered as a mutagenic product.*
Toxicity for reproduction: *# Does not harm fertility. Does not harm the unborn child.*
Effects via lactation: *# Not classified as a hazardous product for children breast-fed.*

DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE:
Routes of exposure: *# May be absorbed by inhalation of dust, through the skin and by ingestion.*
Short-term exposure: *# Harmful in contact with skin and if swallowed. Irritating to eyes and skin. Direct eye contact may cause burns to the cornea. Injuries to the cornea may be severe and extensive. If swallowed, may cause irritation of the mouth, throat and oesophagus. Also causes disturbances of the central nervous system. May appear systemic effects due to the formation of calcium oxalate, which is insoluble at physiological pH, and which can be deposited in the renal tubules and brain; the resultant hypocalcemia may affect heart function and nerve.*
Long-term or repeated exposure: *# Pulmonary disorders may appear due to continual inhalation of dust. Repeated or prolonged skin contact causes chronic dermatitis. May have an adverse effect on the kidneys.*

INTERACTIVE EFFECTS:
 # Not available.

INFORMATION ABOUT TOXICOCINETICS, METABOLISM AND DISTRIBUTION:
Dermal absorption: *# Not available.*
Basic toxicokinetics: *# Not available.*

ADDITIONAL INFORMATION:
Not available.

SECTION 12 : ECOLOGICAL INFORMATION

12.1 TOXICITY:

Acute toxicity in aquatic environment :	LC50 (OECD 203) mg/l·96hours	EC50 (OECD 202) mg/l·48hours	EC50 (OECD 201) mg/l·72hours
Oxalic acid	160. Fishes	137. Daphnia	> 80. Algae

No observed effect concentration
Not available
Lowest observed effect concentration
Not available

ASSESSMENT OF AQUATIC TOXICITY:

Aquatic toxicity	Cat.	Main hazards to the aquatic environment	Criteria
Acute aquatic toxicity: Not classified	-	*# Not classified as a hazardous product with acute toxicity to aquatic life (based on available data, the classification criteria are not met).*	GHS/CLP 4.1.2.
Chronic aquatic toxicity: Not classified	-	*# Not classified as a dangerous product with chronic toxicity to aquatic life with long lasting effects (based on available data, the classification criteria are not met).*	GHS/CLP 4.1.2.

12.2 PERSISTENCE AND DEGRADABILITY:
 # Not applicable (inorganic substance).

Biodegradability:
 # Inherently biodegradable.

Aerobic biodegradation	DQO mgO2/g	%DBO/DQO 5 days 14 days 28 days	Biodegradability
Oxalic acid	178.		Inherently

 # Note: Biodegradability data correspond to an average of data from various bibliographic sources.
Hydrolysis: *# Not applicable (the molecule does not contain hydrolysable functional groups).*
Photodegradability: *# Not applicable (inorganic substance).*

12.3 BIOACCUMULATIVE POTENTIAL:
 # Not bioaccumulable.

Bioaccumulation	log Pow	BCF l/kg	Potential
Oxalic acid	-0.810	0.60 (calculated)	Not available

12.4 MOBILITY IN SOIL:
 # Not available.

Mobility	log Koc	Constant of Henry Pa·m3/mol 20ºC	Potential
Oxalic acid	0.700	0.00001 (calculated)	Not available

12.5 RESULTS OF PBT AND VPVB ASSESMENT: Annex XIII of Regulation (EC) no. 1907/2006:
 # Do not fulfil the PBT/vPvB criteria : Half-life in the marine environment < 60 days, Half-life in fresh-water or estuarine < 40 days, Half-life in marine sediments < 180 days, Half-life in sediments of fresh-water or estuarine < 120 days, Half-life in the soil < 120 days, Bioconcentration factor BCF < 2000, Long term ´No observed effect concentration´ for fresh-water or marine organisms NOEC > 0.01 mg/l, It is NOT classified as CMR, It has NO endocrine disrupting potential.

12.6 OTHER ADVERSE EFFECTS:
Ozone depletion potential: *# Not applicable.*
Photochemical ozone creation potential: *# Not applicable.*
Earth global warming potential: *# Not applicable.*
Endocrine disrupting potential: *# No.*

SECTION 13 : DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS: *# Directive 2008/98/EC~Regulation (EU) no. 1357/2014:*
 # Take all necessary measures to prevent the production of waste whenever possible. Analyse possible methods for revaluation or recycling. Do not discharge into drains or the environment, dispose at an authorised waste collection point. Waste should be handled and disposed in accordance with current local and national regulations. For exposure controls and personal protection measures, see section 8.

Disposal of empty containers: *# Directive 94/62/EC~2015/720/EU, Decision 2000/532/EC~2014/955/EU:*
 # Emptied containers and packaging should be disposed in accordance with currently local and national regulations. The classification of packaging as hazardous waste will depend on the degree of empting of the same, being the holder of the residue responsible for their classification, in accordance with Chapter 15 01 of Decision 2000/532/EC, and forwarding to the appropriate final destination. With contaminated containers and packaging, adopt the same measures as for the product in itself.

Procedures for neutralising or destroying the product:
 # Authorised landfill in accordance with local regulations.

SECTION 14 : TRANSPORT INFORMATION

14.1 UN NUMBER: Not applicable

14.2 UN PROPER SHIPPING NAME: Not applicable

14.3 TRANSPORT HAZARD CLASS(ES):

Transport by road (ADR 2019) and
Transport by rail (RID 2019):
Not regulated

Transport by sea (IMDG 38-16):
Not regulated

Transport by air (ICAO/IATA 2018):
Not regulated

Transport by inland waterways (ADN):
 # Not regulated

14.4 PACKING GROUP:
Not regulated

14.5 ENVIRONMENTAL HAZARDS:
 # Not applicable (not classified as hazardous for the environment).

14.6 SPECIAL PRECAUTIONS FOR USER:
 # Ensure that persons transporting the product know what to do in case of accident or spill. Always transport in closed containers that are upright and secure.

14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE
 # Not applicable.

SECTION 15 : REGULATORY INFORMATION

15.1 EU SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC:
The regulations applicable to this product generally are listed throughout this Safety Data Sheet.

Restrictions on manufacture, placing on market and use: See section 1.2

Tactile warning of danger: Not applicable (the classification criteria are not met).

Child safety protection: Not applicable (the classification criteria are not met).

OTHER REGULATIONS:

Control of the risks inherent in major accidents (Seveso III): See section 7.2

Other local legislations:
 # The receiver should verify the possible existence of local regulations applicable to the chemical.

15.2 CHEMICAL SAFETY ASSESSMENT:
 # Not available.

SECTION 16 : OTHER INFORMATION

TEXT OF THE PHRASES AND NOTES REFERENCED IN SECTIONS 2 AND/OR 3:
Hazard statements according the Regulation (EU) No. 1272/2008~2018/1480 (CLP), Annex III:
H302 Harmful if swallowed. H312 Harmful in contact with skin. H318 Causes serious eye damage.

 # ADVICES ON ANY TRAINING APPROPRIATE FOR WORKERS:
 # It is recommended for all staff that will handle this product to carry out a basic training in occupational risk and prevention, in order to provide understanding and interpretation of Safety Data Sheets and labelling of products as well.

MAIN LITERATURE REFERENCES AND SOURCES FOR DATA:
 # · European Chemicals Agency: ECHA, http://echa.europa.eu/
 # · Access to European Union Law, http://eur-lex.europa.eu/
· Threshold Limit Values, (AGCIH, 2017).

 # ABBREVIATIONS AND ACRONYMS:
List of abbreviations and acronyms that can be used (but not necessarily used) in this Safety Data Sheet:

 # · REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
 # · GHS: Globally Harmonized System of Classification and Labelling of Chemicals of the United Nations.
 # · CLP: European regularion on Classificatin, Labelling amd Packaging of substances and chemical mixtures.
 # · EINECS: European Inventory of Existing Commercial Chemical Substances.
 # · ELINCS: European List of Notified Chemical Substances.
 # · CAS: Chemical Abstracts Service (Division of the American Chemical Society).
 # · UVCB: Substances of Unknown or Variable composition, complex reaction products or biological materials.
 # · SVHC: Substances of Very High Concern.
 # · PBT: Persistent, bioaccumulable and toxic substances.
 # · vPvB: Very persistent and very bioaccumulable substances.
 # · DNEL: Derived No-Effect Level (REACH).
 # · PNEC: Predicted No-Effect Concentration (REACH).
 # · LD50: Lethal dose, 50 percent.
 # · LC50: Lethal concentration, 50 percent.
 # · UN: United Nations Organisation.
 # · ADR: European agreement concerning the international carriage of dangeous goods by road.
 # · RID: Regulations concerning the international transport of dangeous goods by rail.
 # · IMDG: International Maritime code for Dangerous Goods.
 # · IATA: International Air Transport Association.
 # · ICAO: International Civil Aviation Organization.

SAFETY DATA SHEET REGULATIONS:
 # Safety Data Sheet in accordance with Article 31 of Regulation (EC) No. 1907/2006 (REACH) and Annex of Regulation (EU) No. 2015/830.

HISTORIC:	Revision:
Version: 7	31/05/2017
Version: 8	13/12/2019

 # Changes since previous Safety Data Sheet:
 # Legislative, contextual, numerical, methodological and normative changes since the previous version of the present Safety Data Sheet are identified by a red-italic hash (#).