SECTION1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code : DISINEX VIRAGGIO

UFI: 2E00-F0WW-V00D-YMFR

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

Liquid descaler for heating systems.
Sectors of use:
Private households (= general public = consumers)[SU21], Professional use[SU22]

Uses advised against
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

FACOT CHEMICALS S.r.l.
via Crema, 44- 26010 Capralba (CR) - Italy
Tel. +39 0373 450642 / 450643, Fax 0+39 373 450751
e-mail: info@facot.it - www.facot.it

e-mail persona competente: msds@facot.it

1.4. Emergency telephone number

Facot Chemical Srl: +39 0373 450642 (working hours)

SECTION2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:
GHS05, GHS07

Hazard Class and Category Code(s):
Met. Corr. 1, Skin Corr. 1, Eye Dam. 1, STOT SE 3

Hazard statement Code(s):
H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.

The product can be corrosive to metals
Corrosive product: causes severe skin burns and eye damage.
If inhaled the product, causes irritations to the respiratory tract.
If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to

iris.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):
GHS05, GHS07 - Danger

Hazard statement Code(s):
H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.

Supplemental Hazard statement Code(s):
not applicable

Precautionary statements:
General
P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
Prevention
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Response
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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/doctor.
Storage
P405 - Store locked up.
Disposal
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

Contains:
hydrogen chloride ...%, Sulphoric acid ...%

UFI: 2E00-F0WW-V00D-YMFR

2.3. Other hazards

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

No information on other hazards
Packaging to be fitted with child-resistant fastenings
Packaging to be fitted with a tactile warning (EN ISO 11683)

SECTION3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Note B - Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Substance	% (w/w)	Classification	Identificativi
hydrogen chloride ...% Note: B	>= 20 < 25%	Met. Corr. 1, H290; Skin Corr. 1B, H314; STOT SE 3, H335 Limits: Eye Irrit. 2, H319 10<= %C <25; STOT SE 3, H335 %C >=10; Skin Corr. 1B, H314 %C >=25; Skin Irrit. 2, H315 10<= %C <25;	CE 017-002-00-2 CAS 7647-01-0 EINECS 231-595-7 REACH 01-2119484862-27-XXXX
Sulphoric acid ...% Note: B	>= 5 < 10%	Skin Corr. 1A, H314 Limits: Skin Corr. 1A, H314 %C >=15; Skin Irrit. 2, H315 5<= %C <15; Eye Irrit. 2, H319 5<= %C <15; ATE oral = 2.140,0 mg/kg ATE inhal = 0,8mg/l/4 h	CE 016-020-00-8 CAS 7664-93-9 EINECS 231-639-5 REACH 01-2119458838-20-XXXX

SECTION4. First aid measures

4.1. Description of first aid measures

Inhalation:
Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated room. CALL A PHYSICIAN.
Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product).:
Take contaminated clothing Immediately off.
In case of contact with skin, wash immediately with water.
Consult a physician immediately

Direct contact with eyes (of the pure product).:
Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately
Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

Ingestion:
Drink water with egg white; do not give bicarbonate.
Absolutely do not induce vomiting or emesis. Seek medical advice immediately.

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

No data available.

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

If medical advice is needed, have product container or label at hand.
Immediately call a POISON CENTER/doctor.

SECTION5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:
Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing means to avoid:
Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

Use protection for the breathing apparatus
Safety helmet and full protective suit.
The spray water can be used to protect the people involved in the extinction
You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)
Keep containers cool with water spray

SECTION6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:
Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:
Wear mask, gloves and protective clothing.
Eliminate all unguarded flames and possible sources of ignition. No smoking.
Provision of sufficient ventilation.
Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spill with earth or sand.
If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the the authorities.
Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:
Rapidly recover the product, wear a mask and protective clothing
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material.

Prevent it from entering the sewer system.

6.3.2 For cleaning up:
After wiping up, wash the area and materials involved

6.3.3 Other information:
None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapors
Wear protective gloves/protective clothing/eye protection/face protection.
In residential areas do not use on large surfaces.
At work do not eat or drink.
See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Store in a cool place, away from sources of heat and `direct exposure of sunlight.

7.3. Specific end use(s)

Private households (= general public = consumers):
Handle in a well ventilated area.

Professional use:
Follow the rules of good hygiene in the workplace.

SECTION8. Exposure controls/personal protection

8.1. Control parameters

Related to contained substances:
hydrogen chloride ...%:
GESTIS International Limit Value (https://limitvalue.ifa.dguv.de/)
Australia: TLV-STEL= 5 (1) ppm , 7,5 (1) mg/m³
Belgium: TLV-TWA= 5 ppm , 8 mg/m³ - TLV-STEL= 10 (1) ppm , 15 (1) mg/m³
Canada - Ontario: TLV-STEL= 2 (1) ppm , mg/m³
European Union: TLV-TWA= 5 ppm , 8 mg/m³ - TLV-STEL= 10 (1) ppm , 15 (1) mg/m³
Finland: TLV-STEL= 5 (1) ppm , 7,6 (1) mg/m³
Germany (AGS): TLV-TWA= 2 ppm , 3 mg/m³ - TLV-STEL= 4 (1) ppm , 6 (1) mg/m³
Germany (DFG): TLV-TWA= 2 ppm , 3 mg/m³ - TLV-STEL= 4 (1) ppm , 6 (1) mg/m³
Ireland: TLV-TWA= 5 ppm , 8 mg/m³ - TLV-STEL= 10 (1) ppm , 15 (1) mg/m³
Italy: TLV-TWA= 5 ppm , 8 mg/m³ - TLV-STEL= 10 (1) ppm , 15 (1) mg/m³
Japan (JSOH): TLV-TWA= 2 (1) ppm , 3 (1) mg/m³
Latvia: TLV-TWA= 5 ppm , 8 mg/m³ - TLV-STEL= 10 (1) ppm , 15 (1) mg/m³
People's Republic of China: TLV-STEL= 7,5 (1) mg/m³

Romania: TLV-TWA= 5 ppm , 8 mg/m³ - TLV-STEL= 10 (1) ppm , 15 (1) mg/m³
Singapore: TLV-STEL= 5 ppm , 7,5 mg/m³
South Korea: TLV-TWA= 1 ppm , 1,5 mg/m³ - TLV-STEL= 2 ppm , 3 mg/m³
Sweden: TLV-TWA= 2 ppm , 3 mg/m³ - TLV-STEL= 4 (1) ppm , 6 (1) mg/m³
The Netherlands: TLV-STEL= 15 mg/m³
Turkey: TLV-TWA= 5 ppm , 8 mg/m³ - TLV-STEL= 10 (1) ppm , 15 (1) mg/m³
USA - NIOSH: TLV-STEL= 5 (1) ppm , 7 (1) mg/m³

Australia: (1) Ceiling limit value
Belgium: (1) 15 minutes average value
Canada – Ontario: (1) Ceiling limit value
European Union. (1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV) ~ (for references see bibliography)
Finland: (1) 15 minutes average value
Germany (AGS): (1) 15 minutes average value
Germany (DFG): (1) 15 minutes average value
Italy: (1) 15 minutes average value
Japan (JSOH): (1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day
Latvia: (1) 15 minutes average value
People's Republic of China: (1) Ceiling limit value
Romania: (1) 15 minutes average value
Sweden: (1) 15 minutes average value
Turkey: (1) 15 minutes average value
USA – NIOSH: (1) Ceiling limit value

Sulphoric acid ...%:
GESTIS International Limit Value (https://limitvalue.ifa.dguv.de/)
Australia : TLV-TWA = 1 mg/m3 - TLV-STEL = 3 mg/m3
Austria : TLV-TWA = 0,1 inhalable aerosol mg/m3 - TLV-STEL = 0,2 inhalable aerosol mg/m3
Belgium : TLV-TWA = 1 mg/m3 - TLV-STEL = 3 mg/m3
Canada - Ontario : TLV-TWA = 0,2 (1) mg/m3 - TLV-STEL = mg/m3
Canada - Québec : TLV-TWA = 1 mg/m3 - TLV-STEL = 3 mg/m3
Denmark : TLV-TWA = 0,05 mg/m3 - TLV-STEL = 0,1 (1) mg/m3
European Union : TLV-TWA = 0,05 (1)(2) mg/m3 - TLV-STEL = mg/m3
Finland : TLV-TWA = 0,05 (1) mg/m3 - TLV-STEL = 0,1 (1)(2) mg/m3
France : TLV-TWA = 0,05 thoracic fraction mg/m3 - TLV-STEL = 3 mg/m3
Germany (AGS) : TLV-TWA = 0,1 inhalable aerosol mg/m3 - TLV-STEL = 0,1 inhalable aerosol (1) mg/m3
Germany (DFG) : TLV-TWA = 0,1 (1) mg/m3 - TLV-STEL = 0,1 (1)(2) mg/m3 Ceiling = 0,2 (1)(3) mg/m3
Hungary : TLV-TWA = 1 mg/m3 - TLV-STEL = 1 mg/m3
Ireland : TLV-TWA = 0,05 mg/m3 - TLV-STEL = mg/m3
Israel : TLV-TWA = 0,3 mg/m3 - TLV-STEL = mg/m3
Italy : TLV-TWA = 0,05 (1)(2) mg/m3 - TLV-STEL = mg/m3
Japan (JSOH) : TLV-TWA = 1 (1) mg/m3 - TLV-STEL = mg/m3
Latvia : TLV-TWA = 0,05 mg/m3 - TLV-STEL = mg/m3
New Zealand : TLV-TWA = 0,1 mg/m3 - TLV-STEL = mg/m3
People's Republic of China : TLV-TWA = 1 mg/m3 - TLV-STEL = 2 (1) mg/m3
Poland : TLV-TWA = 1 mg/m3 - TLV-STEL = 3 mg/m3
: TLV-TWA = 0,05 mg/m3 - TLV-STEL = mg/m3
Romania : TLV-TWA = 0,05 mg/m3 - TLV-STEL = mg/m3
Singapore : TLV-TWA = 1 mg/m3 - TLV-STEL = 3 mg/m3
South Korea : TLV-TWA = 0,2 mg/m3 - TLV-STEL = 0,6 mg/m3
Spain : TLV-TWA = 0,05 mg/m3 - TLV-STEL = mg/m3
Sweden : TLV-TWA = 0,1 (1) mg/m3 - TLV-STEL = 0,2 (1)(2) mg/m3
Switzerland : TLV-TWA = 0,1 (1) mg/m3 - TLV-STEL = 0,2 (1)(2) mg/m3
The Netherlands : TLV-TWA = 0,05 thoracic aerosol mg/m3 - TLV-STEL = mg/m3
Turkey : TLV-TWA = 0,05 mg/m3 - TLV-STEL = mg/m3
USA - NIOSH : TLV-TWA = 1 mg/m3 - TLV-STEL = mg/m3
USA - OSHA : TLV-TWA = 1 mg/m3 - TLV-STEL = mg/m3

United Kingdom : TLV-TWA = 0,05 (1)(2) mg/m3 - TLV-STEL = mg/m3

Canada – Ontari: (1) Thoracic aerosol
Denmar: (1) 15 minutes average value
European Union: (1) Thoracic fraction (2) When selecting an appropriate exposure monitoring method, account should be taken of potential limitations and interferences that may arise in the presence of other sulphur compounds.
Bold-type: Indicative Occupational Exposure Limit Value (IOELV) ~ (for references see bibliography)
Finland: (1) thoracic fraction (2) 15 minutes average value
France: Italics type: Indicative statutory limit values
Germany (AGS): (1) 15 minutes average value
Germany (DFG): (1) Inhalable fraction (2) 15 minutes average value (3) Ceiling limit value
Italy: (1) thoracic fraction (2) When selecting an appropriate method of exposure monitoring, the limitations and potential interference that may result from the presence of other phosphorus compounds should be taken into account
Japan (JSOH): (1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day
People's Republic of China: (1) 15 minutes average value
Poland: Thoracal fraction
Sweden: (1) Inhalable fraction (2) 15 minutes average value
Switzerland: (1) Inhalable fraction (2) 15 minutes average value
United Kingdom: (1) Thoracic fraction (2) The UK Advisory Committee on Toxic Substances has expressed concern that, for the OELs shown in parentheses, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement, but are omitted from the published 2005 list.

- Substance: hydrogen chloride ...%
DNEL
Local effects Long term Workers inhalation = 8 (mg/m3)
Local effects Long term Consumers dermal = 8 (mg/kg bw/day)
Local effects Short term Workers inhalation = 15 (mg/m3)
Local effects Short term Consumers dermal = 15 (mg/kg bw/day)
PNEC
Sweet water = 0,036 (mg/l)
Sea water = 0,036 (mg/l)
intermittent emissions = 0,045 (mg/l)
STP = 0,036 (mg/l)

- Substance: Sulphoric acid ...%
DNEL
Local effects Long term Workers inhalation = 0,05 (mg/m3)
Local effects Short term Workers inhalation = 0,1 (mg/m3)
PNEC
Sweet water = 0,0025 (mg/l)
sediment Sweet water = 0,002 (mg/kg/sediment)
Sea water = 0,00025 (mg/l)
sediment Sea water = 0,002 (mg/kg/sediment)
STP = 8,8 (mg/l)

8.2. Exposure controls

Appropriate engineering controls:
Private households (= general public = consumers):
Observe usual safety precautions in the handling of chemicals.

Professional use:
Well ventilated environment. Observe the safety measures used in handling chemicals.

Individual protection measures:

a) Eye / face protection
Wear mask

b) Skin protection

i) Hand protection
When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

ii) Other
When handling the pure product wear full protective skin clothing.

c) Respiratory protection
Use adequate protective respiratory equipment (EN 14387:2008)

d) Thermal hazards
No hazard to report

Environmental exposure controls:
Use according to good working practices to avoid pollution into the environment.

SECTION9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Liquid	Visual
Colour	Liquid	
Odour	Pungent characteristic	Olfactory
Odour threshold	Undefined	
pH	1.2 ± 0.2 (10% in H2O)	
Melting point/freezing point	Undefined	
Initial boiling point and boiling range	85°C	
Flash point	Undefined	
Evaporation rate	Undefined	
Flammability (solid, gas)	Undefined	
Upper/lower flammability or explosive limits	Undefined	
Vapour pressure	Undefined	
Vapour density	Undefined	
Relative density	1,160 ± 0,010 g/cm3 (20°C)	
Solubility	Undefined	
Water solubility	Water soluble	
Partition coefficient: n-octanol/water	Undefined	
Auto-ignition temperature	Undefined	
Decomposition temperature	Undefined	

Physical and chemical properties	Value	Determination method
Viscosity	Undefined	
Explosive properties	Undefined	
Oxidising properties	Undefined	

9.2. Other information

No data available.

SECTION10. Stability and reactivity

10.1. Reactivity

No reactivity hazards

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Related to contained substances:
hydrogen chloride ...%:
Heat.
No ventilation.
Contact with metals.

10.5. Incompatible materials

It can generate inflammable gases to contact with elementary metals, nitrides, inorganic sulfide, strong reducing agents.
It can generate toxic gases to contact with inorganic solfide, strong reducing agents.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION11. Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

ATE(mix) oral = ∞
ATE(mix) dermal = ∞
ATE(mix) inhal = ∞

(a) acute toxicity: hydrogen chloride ...%: Inhalation of high concentrations of the gas may cause pneumonitis and lung oedema, resulting in reactive airways dysfunction syndrome (RADS) (see Notes). The effects may be delayed. Medical observation is indicated.
Acute hazards/symptoms;
Inhalation: Corrosive. Burning sensation. Cough. Laboured breathing. Shortness of breath. Sore throat. Symptoms may be delayed (see Notes).
Skin: Corrosive. Serious skin burns. Pain.
Eyes: Corrosive. Pain. Blurred vision. Severe deep burns.
(b) skincorrosion/irritation: Corrosive product: causes severe skin burns and eye damage.
hydrogen chloride ...%: Corrosive.
(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage. - If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.
hydrogen chloride ...%: Corrosive.
(d) respiratoryorskinsensitisation: based on available data, the classification criteria are not met.
(e) germ cell mutagenicity: based on available data, the classification criteria are not met.
(f) carcinogenicity: based on available data, the classification criteria are not met.
(g) eproductivetoxicity: based on available data, the classification criteria are not met.
(h) specific target organ toxicity (STOT) single exposure: If inhaled the product, causes irritations to the respiratory tract.
(i) specific target organ toxicity (STOT) repeated exposure: hydrogen chloride ...%: The substance may have effects on the lungs , resulting in chronic bronchitis. The substance may have effects on the teeth, resulting in erosion.
(j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:
hydrogen chloride ...%:
Inhalation of high concentrations of the gas can cause pneumonia and pulmonary edema, causing reactive airway dysfunction syndrome (RADS) (see Notes). Effects can be delayed. Medical observation is indicated.
Acute Risks / Symptoms;
Inhalation: Corrosive. Burning sensation. Cough. Breathing difficulty. Shortness of breath. Sore throat. Symptoms may be delayed (see Notes). The substance may have effects on the lungs, resulting in chronic bronchitis. The substance may have effects on the teeth, resulting in erosion.
Skin: Corrosive. Severe skin burns. Ache.
Eyes: Corrosive. Ache. Blurred vision. Severe deep burns
NOTE. The exposure limit value must not be exceeded at any time during the occupational exposure. Symptoms of pulmonary edema often do not appear for a few hours and are aggravated by physical exertion. Rest and medical observation are therefore essential. Provision should be made for the immediate administration of appropriate inhalation therapy by a doctor or personnel authorized by him / her.

Sulphoric acid ...%:
The substance is very corrosive to the eyes, skin and respiratory tract. Corrosive if swallowed. Aerosol inhalation of this drug may cause pulmonary edema.
ACUTE HAZARDS/SYMPTOMS.
Inhalation. Corrosive. Burning sensation. Sore throat. Cough. Respiratory difficulties. Shortness of breath. Symptoms may be delayed (see notes).
CUTE. Corrosive. Redness. Pain. Blisters. Severe skin burns.
Eyes. Corrosive. Redness. Pain. Severe deep burns.
Ingestion. Corrosive. Abdominal pain. Burning sensation. Shock or collapse.
The lungs can be damaged by repeated or prolonged exposure to aerosols of this substance. Risk of dental erosion for repeated or prolonged exposure to aerosols of this substance. Strong inorganic acid vapor containing this substance are carcinogenic to humans.
Evaporation at 20°C negligible; a harmful concentration of aereodisperse particles can, however, be reached quickly for spraying.

Routes of exposure: the substance can be absorbed into the body by inhalation of its aerosol e per ingestione.
Notes. Symptoms of lung oedema often do not occur before a few hours and are aggravated by physical effort. Are therefore essential rest and medical observation.
-The International Agency for Research on Cancer (IARC) allocates in Group 1 (carcinogenic to humans found), based on sufficient evidence of cancerogenicita00 in humans.
-The US National Toxicology Program (NTP) substance lists in the ninth Annual Report on Carcinogens (NTP, 2000) allocandola in the category of recognized carcinogens to humans.
LD50 (rat) Oral (mg/kg body weight) = 2140
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 0,85

11.2. Information on other hazards

No data available.

SECTION12. Ecological information

12.1. Toxicity

Related to contained substances:
hydrogen chloride ...%:
LC50 = 20.5 mg / l (fish, 96h, pH 3.2)
EC50 = 0.45 mg / (invertebrates, 48h, pH 4.9)
EC50 = 0.73 mg / l (algae, 72h, pH 4.7)

Sulphoric acid ...%:
EL50 48 / h:> 100 mg / l - Daphnia Magna - Invertebrates Short term (OECD Guideline 202)
NOEC: 0.15 mg / l - Tanytarsus dissimilis - Invertebrates Long term
EC50 72 / h> 100 mg / l - Desmodesmus subspicatus - Alga
LC50 96h:> 16 - <28 mg / l - Lepomis macrochirus - Freshwater fish Short term
NOEC: 0.31 mg / l - Salvelinus fontinalis - Freshwater fish Long term
NOEC (65d): 0.025 mg / l - Jordanella floridae - Freshwater fish Long term
NOEC (37 d): approx. 26 g / l - Activated mud in fresh water

Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

Related to contained substances:
hydrogen chloride ...%:
It will freely dissociate into hydrogen and chlorine ions.
Aerial: Indirect photooxidation t½: 11 days.

Sulphoric acid ...%:
Biotic degradability: not required as it is an inorganic compound.
Abiotic degradability: the product hydrolyzes

12.3. Bioaccumulative potential

Related to contained substances:
hydrogen chloride ...%:
Hydrochloric acid does not bioaccumulate (log Kow: -2.65).

Sulphoric acid ...%:
Not bioaccumulative.

12.4. Mobility in soil

Related to contained substances:
hydrogen chloride ...%:
The product is believed to have high mobility in soil.

Sulphoric acid ...%:
It is not adsorbed by soil particles.

12.5. Results of PBT and vPvB assessment

No PBT/vPvB ingredient is present

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No adverse effects

Regulation (EC) 2004/648
More information:
Surfactant (s) content (s) in this preparation is (are) in accordance with the biodegradability criteria as laid down in Regulation CE/648/2004 on detergents. All supporting data shall be available to the competent authorities of Member States and will be provided, if they so request or at the request of a manufacturer of the formulation, the said authorities.

SECTION13. Disposal considerations

13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.
Recover if possible. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

SECTION14. Transport information

14.1. UN number or ID number

ADR/RID/IMDG/ICAO-IATA: 3264

If subject to the following characteristics is ADR exempt:
Combination packagings: per inner packaging 1 L per package 30 Kg
Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: LIQUIDO INORGANICO CORROSIVO, ACIDO, N.A.S. (Acido cloridrico ...%, Acido solforico ...%)
ADR/RID/IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrogen chloride ...%, Sulphoric acid ...%)
ICAO-IATA: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrogen chloride ...%, Sulphoric acid ...%)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 8
ADR/RID/IMDG/ICAO-IATA: Label : 8
ADR: Tunnel restriction code : E
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 L
IMDG - EmS : F-A, S-B

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: II

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous
IMDG: Marine polluting agent : Not

14.6. Special precautions for user

The goods must be transported by vehicles authorized to transport of dangerous goods according to the current edition of ADR requirements and applicable national regulations.
The goods must be in original packing, however, in packaging made of materials resistant to their content and not likely to generate with this dangerous reactions. People loading and unloading dangerous goods must be trained on the risks from these substances and that must be taken in case of emergency situations.

14.7. Maritime transport in bulk according to IMO instruments

It is not intended to carry bulk

SECTION15. Regulatory information

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

Reg (EC) n. 1907/2006 (REACH), Reg (EC) n. 1272/2008 (CLP), Reg (EC) n. 878/2020 (Requirements for the compilation of safety data sheets), Reg (E) n.790/2009, Dir 96/82/EC as amended.
REGULATION (EU) No 1357/2014 - waste:
HP5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP8 - Corrosive

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION16. Other information

16.1. Other information

Points modified compared to previous release: 1.1. Product identifier, 1.2. Relevant identified uses of the substance or mixture and uses advised against, 2.1. Classification of the substance or mixture, 2.2. Label elements, 2.3. Other hazards, 8.1. Control parameters, 8.2. Exposure controls, 10.4. Conditions to avoid, 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008, 12.1. Toxicity, 12.2. Persistence and degradability, 12.3. Bioaccumulative potential, 12.4. Mobility in soil, 12.6. Endocrine disrupting properties, 14.6. Special precautions for user, 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Description of the hazard statements exposed to point 3
H290 = May be corrosive to metals.
H314 = Causes severe skin burns and eye damage.
H335 = May cause respiratory irritation.

Classification based on data of all mixture components

Regulatory information:
Reg 1907/2006 EC
Reg 1272/2008 EC
Reg 878/2020 EC

Bibliographic data :
SAX 12 Ed Van Nostrand Reinhold
MERCK INDEX 15 Ed
ECHA: European Chemicals Agency (https://echa.europa.eu/it/information-on-chemicals)
OSHA: European Agency for Safety and Health at Work
IARC: International Agency for Research on Cancer
IPCS: International Programme on Chemical Safety (Cards)
NIOSH: Registry of toxic effects of chemical substances (1983)
ACGIH: American Conference of Governmental Industrial Hygienists
TOXNET: Toxicology Data Network
WHO: World Health Organization
CheLIST: Chemical Lists Information System
GESTIS: Inetrnational Limit Value (https://limitvalue.ifa.dguv.de/)

Acronyms:
- ACGIH American Conference of Governmental Industrial Hygienists
- ADR Accord 5Européen Relatif au Transport International des Marchandises Dangereuses par Route (European accord regarding international transport of dangerous goods by land)
- bw body weight
- CLP Classification, Labelling and Packaging
- CSR Chemical Safety Report
- DMEL Derived Minimal Effect Level
- DNEL Derived No Effect Level
- dw dry weight
- EC Effective Concentration
- IATA International Air Transport Association
- IMDG International Maritime Dangerous Goods
- LC Lethal Concentration
- LD Lethal Dose
- m.w. molecular weight

- PBT Persistent, Bioaccumulative and Toxic
- PNEC Predicted No Effect Concentration
- OECD Organisation / Office for Economic Co-operation and Development
- STEL Short Term Exposure Limit
- SVHC Substance of Very High Concern
- TLV Threshold Limit Value
- TWA Time Weighted Average
- vPvB very Persistent, very Bioaccumulative and toxic
- WGK Wassergefährdungsklasse (Water hazard class)

NOTICE TO USERS
The information contained in this sheet are based on the knowledge available at the date of the preparation of this sheet.
The user must be aware of the possible risks associated with the use of the product, other than that for which the product is supplied. The sheet does not exonerate the user from knowing and applying all the regulations governing its activities. The set of regulations mentioned is simply to help the user to fulfill its obligations regarding the use of hazardous products.
This sheet does not exonerate the user from other legal obligations than those mentioned and from rules regulating possession and use of the product, since the user is the only responsible.

*** This sheet supersedes all previous editions.