

Safety Data Sheet

NANO ACID CLEANER



Safety Data Sheet dated 12/3/2019, version 1

This version cancels and substitutes any previous version

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

1.1. Product identifier

Mixture identification:

Trade name: NANO ACID CLEANER

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

Recommended use:

Condenser deoxidiser

1.3. Details of the supplier of the safety data sheet

Company:

ERRECOM SRL

Via Industriale, 14

Corzano (BS) Italy

Tel. +39 030/9719096

Competent person responsible for the safety data sheet:

lab@errecom.it


1.4. Emergency telephone number


+39 02-6610-1029 Poison Control Center Niguarda Ca' Granda - Milano - ITALY

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

 Warning, Skin Irrit. 2, Causes skin irritation.

 Danger, Eye Dam. 1, Causes serious eye damage.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H315 Causes skin irritation.

H318 Causes serious eye damage.

Precautionary statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

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

Special Provisions:

None

Contains

ethoxylated fatty alcohols

hydrochloric acid

Special provisions according to Annex XVII of REACH and subsequent amendments:

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None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards








SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 5% - < 7%	ethoxylated fatty alcohols	CAS: 24938-91-8	 3.1/4/Oral Acute Tox. 4 H302  3.3/1 Eye Dam. 1 H318
>= 2.5% - < 5%	hydrochloric acid	Index number: 017-002-01-X CAS: 7647-01-0 EC: 231-595-7	 2.16/1 Met. Corr. 1 H290  3.2/1B Skin Corr. 1B H314  3.8/3 STOT SE 3 H335
>= 0.5% - < 1%	ammonium bifluoride	Index number: 009-009-00-4 CAS: 1341-49-7 EC: 215-676-4	 3.1/3/Oral Acute Tox. 3 H301  3.2/1A Skin Corr. 1A H314

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

After contact with skin, wash immediately with soap and plenty of water.

Wash contaminated clothing before using them.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

No information available.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool and well ventilated place.

Store away from direct sunlight.

Keep away from food, drink and feed.

Incompatible materials:

Store containers away from any incompatible materials, checking section 10.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Information not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

hydrochloric acid - CAS: 7647-01-0

EU - TWA(8h): 8 mg/m³, 5 ppm - STEL: 15 mg/m³, 10 ppm

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ACGIH - STEL: Ceiling 2 ppm - Notes: A4 - URT irr
ammonium bifluoride - CAS: 1341-49-7
TLV TWA - 2,5 mg/m³

DNEL Exposure Limit Values
hydrochloric acid - CAS: 7647-01-0
Worker Professional: 15 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term (acute)
Worker Professional: 8 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term (repeated)

ammonium bifluoride - CAS: 1341-49-7
Worker Professional: 3.8 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects
Worker Professional: 2.3 mg/m³ - Consumer: 0.045 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 0.015 mg/m³ - Exposure: Human Oral - Frequency: Long Term, systemic effects
Consumer: 0.015 mg/m³ - Exposure: Human Oral - Frequency: Short Term, systemic effects

PNEC Exposure Limit Values
hydrochloric acid - CAS: 7647-01-0
Target: Fresh Water - Value: 36 µg/l
Target: Aquatic, periodic release - Value: 45 µg/l
Target: Marine water - Value: 36 µg/l
Target: Microorganisms in sewage treatments - Value: 36 µg/l

ammonium bifluoride - CAS: 1341-49-7
Target: Fresh Water - Value: 1.3 mg/l
Target: Soil (agricultural) - Value: 22 mg/kg
Target: Microorganisms in sewage treatments - Value: 76 mg/l

8.2. Exposure controls

Eye protection:
Use close safety visors, don't use eye lens.

Protection for skin:
Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:
work gloves resistant to penetration (ref. standard EN 374).
Suitable material:
NBR (nitrile rubber).
NR (natural rubber, natural latex).
Material thickness: 0.4 mm minimum.
Break through time : > 480 min
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Respiratory protection:
In the case of vapour formation use a respirator with an approved filter.
full face mask with combined filter type ABEK (EN 14387).

Thermal Hazards:
None

Environmental exposure controls:
None

Appropriate engineering controls:
None

SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties

Appearance and colour:	liquid blue
Odour:	characteristic
Odour threshold:	N.A.
pH:	2.1
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	N.A.
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	N.A.
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	1.0 g/mL (+20°C/+68°F)
Solubility in water:	total
Solubility in oil:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.

9.2. Other information

Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.
V.O.C. (w/w):	N.A.

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - Stable under normal conditions
- 10.2. Chemical stability
 - Stable under normal conditions
- 10.3. Possibility of hazardous reactions
 - No data available
- 10.4. Conditions to avoid
 - Stable under normal conditions.
- 10.5. Incompatible materials
 - Bases, amines, alkali metals, permanganates.
- 10.6. Hazardous decomposition products
 - Chlorine, ammonia, nitrogen oxides.
 - Hydrogen fluoride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the product:

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a) acute toxicity

Not classified

Based on available data, the classification criteria are not met

b) skin corrosion/irritation

The product is classified: Skin Irrit. 2 H315

c) serious eye damage/irritation

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- The product is classified: Eye Dam. 1 H318
- d) respiratory or skin sensitisation
 - Not classified
 - Based on available data, the classification criteria are not met
 - e) germ cell mutagenicity
 - Not classified
 - Based on available data, the classification criteria are not met
 - f) carcinogenicity
 - Not classified
 - Based on available data, the classification criteria are not met
 - g) reproductive toxicity
 - Not classified
 - Based on available data, the classification criteria are not met
 - h) STOT-single exposure
 - Not classified
 - Based on available data, the classification criteria are not met
 - i) STOT-repeated exposure
 - Not classified
 - Based on available data, the classification criteria are not met
 - j) aspiration hazard
 - Not classified
 - Based on available data, the classification criteria are not met
- Toxicological information of the main substances found in the product:
- hydrochloric acid - CAS: 7647-01-0
 - a) acute toxicity:
 - Test: LC50 - Route: Inhalation - Species: Rat = 45.6 mg/l - Duration: 5 min
 - Test: NOAEL - Route: Inhalation - Species: Rat 20 ppm
 - b) skin corrosion/irritation:
 - Test: Skin Corrosive - Route: Skin - Species: Rabbit Positive - Source: OECD 404
 - c) serious eye damage/irritation:
 - Test: Eye Corrosive - Route: Skin - Species: Rabbit Positive - Source: OECD 405
 - ammonium bifluoride - CAS: 1341-49-7
 - a) acute toxicity:
 - Test: LD50 - Route: Oral - Species: Rat 130 mg/kg - Source: OECD Test Guideline 401
 - b) skin corrosion/irritation:
 - Test: Skin Corrosive Positive
 - c) serious eye damage/irritation:
 - Test: Eye Irritant Positive
 - d) respiratory or skin sensitisation:
 - Test: Skin Sensitization Negative
 - Test: Respiratory Sensitization Negative
 - e) germ cell mutagenicity:
 - Test: Mutagenesis - Species: Salmonella Typhimurium Negative - Source: OECD Test Guideline 471
 - Test: Mutagenesis - Species: mammalian cells Positive - Source: OECD Test Guideline 476
 - f) carcinogenicity:
 - Test: Carcinogenicity Negative
 - g) reproductive toxicity:
 - Test: Reproductive Toxicity Negative

SECTION 12: Ecological information

12.1. Toxicity

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Adopt good working practices, so that the product is not released into the environment.
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Not classified for environmental hazards

Based on available data, the classification criteria are not met

hydrochloric acid - CAS: 7647-01-0

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 3.25 pH - Duration h: 96

Endpoint: EC50 - Species: Daphnia 4.92 pH - Duration h: 72 - Notes: Species: Daphnia magna

Endpoint: EC50 - Species: Algae 4.7 pH - Duration h: 72 - Notes: Species: Chlorella vulgaris

ammonium bifluoride - CAS: 1341-49-7

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 mg/l

Endpoint: EC50 - Species: Daphnia > 100 mg/l

Endpoint: EC50 - Species: Algae > 100 mg/l

b) Aquatic chronic toxicity:

Species: Algae > 1 mg/l

Species: Fish > 1 mg/l

Species: Daphnia > 1 mg/l

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

ADR-Environmental Pollutant: No

IMDG-Marine pollutant: No

14.6. Special precautions for user

N.A.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

N.A.

SECTION 15: Regulatory information

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- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Dir. 98/24/EC (Risks related to chemical agents at work)
 - Dir. 2000/39/EC (Occupational exposure limit values)
 - Regulation (EC) n. 1907/2006 (REACH)
 - Regulation (EC) n. 1272/2008 (CLP)
 - Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
 - Regulation (EU) 2015/830
 - Regulation (EU) n. 286/2011 (ATP 2 CLP)
 - Regulation (EU) n. 618/2012 (ATP 3 CLP)
 - Regulation (EU) n. 487/2013 (ATP 4 CLP)
 - Regulation (EU) n. 944/2013 (ATP 5 CLP)
 - Regulation (EU) n. 605/2014 (ATP 6 CLP)
 - Regulation (EU) n. 2015/1221 (ATP 7 CLP)
 - Regulation (EU) n. 2016/918 (ATP 8 CLP)
 - Regulation (EU) n. 2016/1179 (ATP 9 CLP)
 - Regulation (EU) n. 2017/776 (ATP 10 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H301 Toxic if swallowed.

Hazard class and hazard category	Code	Description
Met. Corr. 1	2.16/1	Substance or mixture corrosive to metals, Category 1
Acute Tox. 3	3.1/3/Oral	Acute toxicity (oral), Category 3
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure,

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		Category 3
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Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.