SAFETY DATA SHEET

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

CLINEX STEEL

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

1.1 **Product identifier: CLINEX STEEL**

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

1.2.1 Relevant identified uses: Cleaning agent for stainless steel. For Professional use only.

1.2.2 Uses advised against: not determined.

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

1.3.1Manufacturer: **AMTRA Sp. z o. o.**

1.3.2 Address: ul. Schonów 3, 41-200 Sosnowiec, Poland

1.3.3 Telephone: +48 32 2944100

1.3.4 E-mail address for a competent person responsible for SDS: amtra@amtra.pl

1.4 **Emergency telephone number**: +48 32 294 41 00 (8AM- 3 PM), 112 (general emergency telephone), 998

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

2.1.1. Human health hazards: Product is classified as dangerous.

Classification according to 1272/2008/EC

Eye Dam.1 - Serious eye damage category 1

H318 - Causes serious eye damage.

Skin Irrit.2 - Skin irritation category 2

H315 - Causes skin irritation.

2.1.2 Environmental effects: Product is not classified as dangerous for the environment.

2.1.3 Physicochemical adverse effects: Not applicable.

2.2. **Label elements:**

2.2.1 Hazard pictograms:



2.2.2 Signal words: DANGER

2.2.3 Names of hazardous components placed on the label: phosphoric acid

2.2.4 Hazard statements:

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

2.2.5 Precautionary statements:

P280 - Wear protective gloves/protective clothing/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/doctor.

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

P405- Store locked up.

2.2.4Additional information: Contains: non-ionic surfactants (< 5%).

2.3 **Other hazards:** There is no information whether the mixture components meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation. Suitable tests were not conducted.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances:** Not applicable.

3.2 **Mixtures:**

Chemical name	Concentration range	CAS number	EC number	Classification acc. to 1272/2008/EC
phosphoric acid Registration number: 01-2119485924-24-xxxx	<6%	7664-38-2	231-633-2	Skin Corr. 1B, H314
citric acid Registration number: 01-2119457026-42-xxxx	< 4%	5949-29-1	201-069-1	Eye Irrit. 2, H319
sulfamic acid Registration number: 01-2119488633-28-xxxx	<2%	5329-14-6	226-218-8	Eye Irrit. 2, H319 Skin Irrit.2, H315 Aquatic Chronic 3, H412

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

4.1.1 Ingestion: if swallowed, rinse mouth and remove dentures if any. Transport the victim to the nearest medical facility for treatment. Show container or label. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

4.1.2. Inhalation: remove casualty to fresh air, keep warm and calm. In case of disturbing symptoms (cough, vomiting, dizziness, wheezing breath) provide medical attention. Unconscious person should be placed in recovery position.

4.1.3. Skin contact: take off contaminated clothing. Wash contaminated skin thoroughly with warm water and soap. Consult a doctor if irritation occurs.

4.1.4. Eye contact: remove contact lenses. Wash contaminated eyes thoroughly with plenty of water with eyelids wide open. Consult an ophthalmologist.

Attention: people exposed to eye contamination should be instructed on the necessity and method of immediate eyewash.

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

4.2.1 Eye contact: may cause irritation, redness and tearing.

4.2.2 Ingestion: may cause nausea, vomiting and stomach ache.

4.2.3 Skin contact: may cause skin irritation.

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

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

5.1.1 Suitable extinguishing media: adjust fire-fighting measures to surrounding materials.

5.1.2 Unsuitable extinguishing media: not known.

5.2 Special hazards arising from the substance or mixture: Not known. Do not inhale combustion products, they can be dangerous for human health. Due to the content of phosphoric acid, dangerous products of thermal decomposition may be created (phosphorus oxides).

5.3 Advice for firefighters: Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Remove the endangered containers if it is possible and safe or cool them with water spray from a safe distance. Remove all people from the contaminated zone and isolate the nearest area if there was a fire. Do not take any actions that would create a risk to health or life if you are not properly trained.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel limit: the access of the outsiders to the breakdown area until suitable cleaning operations are completed. In case of large spills, isolate the exposed area. Use personal protective equipment.

Avoid prolonged contact with skin. Avoid contact with eyes. Proceed in accordance with good occupational hygiene and safety practices.
6.1.2 For emergency responders: only trained personnel can remove the effects of the accident. Use protective clothing resistant to chemicals.
6.2 Environmental precautions: Prevent the product from spreading into drinking water, soil, canalization. Eliminate the leakage if possible (close the liquid flow, seal the container and place it in a protective packaging). Notify relevant emergency services if necessary.
6.3 Methods and material for containment and cleaning up: Wipe a small leakage with a paper towel using protective gloves. Alternatively, absorb with an inert, dry material and place it in an appropriate waste disposal container. Large spillage: stop the leakage if it is possible and is not dangerous. Isolate places where liquid accumulates and clean it – cover it up with, e.g.: sand, soil and collect it to a closed, well labelled container. Clean the contaminated area with large amount of water. Dispose of in a licensed waste disposal facility. Contaminated absorbing material may pose the same hazard as the spilled product.
6.4 Reference to other sections: Appropriate conduct with waste product – section 13. Personal protective equipment – section 8.

SECTION 7: HANDLING AND STORAGE
7.1 Precautions for safe handling: Handle in accordance with good occupational hygiene and safety practices. Avoid eye contamination. Do not breathe vapours. Before break and after work wash hands carefully. Keep the unused containers tightly closed. Ensure adequate ventilation of the area where product is used. Use in accordance with identified purpose placed on the unit packaging.
7.2 Conditions for safe storage, including any incompatibilities: Store in tightly closed, original containers, away from sources of heat and ignition. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. Do not store with bases.
7.3 Specific end use(s): Not applicable.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1 Control parameters:

Specification	TWA 8 hour	STEL 15 min
Phosphoric acid [CAS 7664-38-2]	1 mg/m^3	2 mg/m^3

Legal basis: Commission Directive 2006/15/EC.
The table above shows the maximum workplace concentration values at the Community level.
Please check any national occupational exposure limit values in your country.

Phosphoric acid:
DNEL values for workers – long-term exposure: 2,92mg/m3
DNEL values for general population – long-term exposure: 0,73 mg/m3
PNEC values:
Taking into account pH- safe pH value is between 6-9.
Citric acid:
PNEC values:
For fresh water environment -0,44 mg/l
For marine water environment – 0,044 mg/l
Sediment environment (fresh water) – 3,46 mg/kg
Sediment environment (marine water) – 34,6 mg/kg
Soil environment – 33,1 mg/kg
STP > 1000 mg/l
8.2 Exposure controls: Use the product in accordance with good occupational hygiene and safety practices. Do not eat, drink and smoke during the work. Avoid eye contamination. Ensure adequate ventilation. Install

eyewashes in the vicinity of a workplace. Take off contaminated clothing immediately.

8.2.1 Respiratory protection: Use respiratory protection in case of insufficient ventilation.

Applied personal protective equipment must comply with the requirements of the Directive 89/686/EC. The employer is obliged to provide protective equipment relevant to performed activities and in accordance with all quality requirements, including its maintenance and cleaning.

8.2.2 Eye/face protection: Use protective glasses for safety.

8.2.3 Skin protection: Use protective gloves and clothing resistant to acids.

The material that the gloves are made of must be impenetrable and resistant to the product's effects. The selection of material must be performed with consideration of breakthrough time, penetration speed and degradation. Moreover, the selection of proper gloves depends not only on the material, but also on other quality features and changes depending on the manufacturer. The producer should provide detailed information regarding the exact breakthrough time. This information should be followed.

8.2.4 Technical protection measures: General room ventilation. Ensure the washcloth to cleanse the eyes in the workplace.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

physical state:	liquid
colour:	colourless to straw
odour:	characteristic, high concentration: irritating
odour threshold:	not determined
pH:	ca. 2
melting point/freezing point:	no data
initial boiling point and boiling range:	no data
flash point:	no data
evaporation rate:	no data
flammability (solid, gas):	no data
upper/lower flammability or explosive limits:	no data
vapour pressure:	no data
vapour density:	no data
relative density:	1,090 g/ml
solubility(ies):	very good solubility In water
partition coefficient: n-octanol/water:	no data
auto-ignition temperature:	not applicable
decomposition temperature:	no data
viscosity:	no data
explosive properties:	not applicable
oxidising properties:	no data
9.2 Other information:	no data

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: The product is stable under normal conditions of use.

10.2 Chemical stability: The product is stable under normal conditions of use.

10.3 Possibility of hazardous reactions: No data.

10.4 Conditions to avoid: No data.

10.5 Incompatible materials: Due to low pH, do not mix with bases.

10.6 Hazardous decomposition products: No data.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

a) Acute toxicity: Based on available data, the classification criteria are not met.

b) Skin corrosion/irritation: Irritating to skin.

c) Serious eye damage/irritation: Causes serious eye damage.

d) Respiratory or skin sensitisation: 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) Reproductive toxicity: Based on available data, the classification criteria are not met.

h) STOT-single exposure: Based on available data, the classification criteria are not met.

i) STOT-repeated exposure: Based on available data, the classification criteria are not met.
j) Aspiration hazard: Based on available data, the classification criteria are not met.

Tests for the product were not conducted. Toxicity of components:
phosphoric acid:
Acute toxicity – ingestion: LD_{50} – 1530 mg/kg (rat)
Acute toxicity – inhalation: no available data
Acute toxicity – skin: LD_{50} – 2740 mg/kg (rabbit)
Skin corrosion/irritation:
Skin irritation: deep burns, slowly healing wounds forming scars and skin inflammation.
Serious eye damage/ eye irritation:
Eye irritation: cornea damage, tearing, photophobia, inflammation and swelling of the conjunctiva
Respiratory or skin sensitisation: no available data
Germ cell mutagenicity: no available data
Carcinogenicity: no available data
Reproductive toxicity: no available data.
STOT-single and repeated exposure: no available data.
Aspiration hazard: no available data.
Phototoxicity: no available data.
citric acid :
Acute toxicity – ingestion: LD_{50} –11700 mg/kg (rat); LD_{50} –5040 mg/kg (mouse)
Acute toxicity – inhalation: no available data
Acute toxicity – skin: LD_{50} – 885 mg/kg (rat); LD_{50} – 961 mg/kg (mouse)
Acute toxicity – Other ways of exposure: no available data
Skin corrosion/irritation:
Skin irritation: may cause skin irritation.
Serious eye damage/ eye irritation:
Eye irritation: Irritating substance, irritating to eyes.
Respiratory or skin sensitisation: no available data
Germ cell mutagenicity: no available data
Carcinogenicity: no available data
Reproductive toxicity: no available data.
STOT-single and repeated exposure: no available data.
Aspiration hazard: no available data.
Phototoxicity: no available data.
sulfamic acid:
Acute toxicity – ingestion LD_{50} –3160 mg/kg (rat)
Acute toxicity – skin: no available data
Acute toxicity – inhalation: no available data
Corrosion/irritation:
Eyes: serious irritation (rabbit, OECD 405)
Skin: serious irritation (rabbit, OECD 405)
Respiratory or skin sensitisation: no available data
Germ cell mutagenicity: no available data
Carcinogenicity: no available data
Reproductive toxicity: no available data.
STOT-single and repeated exposure: no available data.
Aspiration hazard: no available data.

Information based on used surfactant:
LD_{50} (rat): 500-2000 mg/kg
Under normal conditions product does not emit any harmful vapour.
Product has a degreasing effect on skin.
Contact of undiluted substance and concentrated aqueous solutions with skin may cause inflammatory response.
Prolonged contact with the skin may cause inflammation.
Contact with chemical substance causes persisting conjunctivitis, swelling of eyelids and corneal opacity.
Toxic if swallowed, causes irritation of the mucous membranes of the mouth, throat, oesophagus and the gastrointestinal tract.

SECTION 12: ECOLOGICAL INFORMATION
12.1 Toxicity:
Toxicity of components:
phosphoric acid:
Toxicity for fish - an average mortality rate pH 3-3,25 (96h) *Lepomis macrochirus* (without guidelines)
Toxicity for invertebrates: EC_{50} > 100 mg/l/ 48h (OECD 202, *Daphnia magna)* Acute Immobilisation Test
Toxicity for aquatic plants EC_{50} (growth rate) > 100 mg/l/72h (OECD 201, *Desmodesmus subspicatus* (algae))
NOEC (growth rate) 100 mg/l/72h (OECD 201, *Desmodesmus subspicatus* (algae))
Microorganisms e.g. bacteriae – no available data
aquatic organisms – no available data
soil organisms – no available data
terrestrial plants – no available data
general operation - phosphoric acid affects the pH. The growth in phosphate concentration has no importance.
citric acid :
Ecotoxicity for fish: LC_{50} 440-706 mg/l/96h (*Pimephales promelas)*
sulfamic acid:
The product is classified as harmful to aquatic organisms; may cause long-term adverse effects in the aquatic environment.
Toxicity for fish: LC_{50} 70,3 mg/l/96h (*P.promelas*)
Toxicity for bacteriae: UE10 > 1000 mg/l/16h (*Psudomonas putida*)
Information based on used surfactant:
Biodegradation according to 82/242/EEC is over 80%.
The last oxygen biodegradation made of closed bottle method according to 67/548/EEC Annex V.C.4-E is 64%.
Mobility in soil: known or predicted distribution to environmental compartments – non-volatile material, soluble in water.
After dissolving in water, product can penetrate the ground water.
Surface tension of 0,1% solution: ca. 27 mN/m at 25 °C
Toxicity of the product: Product is not classified as hazardous for the environment.
12.2 Persistence and degradability: Surfactants used in the product meet the biodegradability requirements in accordance with Regulation (EC) no 648/2004/EC.
12.3 Bioaccumulative potential: No data.
12.4 Mobility in soil: Product is mobile in water and soil.
12.5 Results of PBT and vPvB assessment: No data.
12.6 Other adverse effects: No data.

SECTION 13: DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods:
13.1.1 Disposal methods for the product: dispose in accordance with the local legislation. Waste code should be given in the place of waste formation.

13.1.2 Disposal methods for used packing: reuse/recycle/liquidate empty containers in accordance with the local legislation. Only completely empty containers can be reused.

Legal basis: Directive 2008/98/EC, 94/62/EC.

Please check also national legislation.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number: Not applicable. Product is not classified as dangerous during transport.

14.2 UN proper shipping name: Not applicable.

14.3 Transport hazard class(es): Not applicable.

14.4 Packing group: Not applicable.

14.5 Environmental hazards: Mixture is not hazardous for the environment.

14.6 Special precautions for user: Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable

SECTION 15: REGULATORY INFORMATION

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization 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 as amended.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 as amended.

Commission Regulation (EU) No 2015/830 of 28 May 2015 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).

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (as amended)

15.2 Chemical safety assessment:

Manufacturer has not carried out a Chemical Safety Assessment for the product. A chemical safety assessment was carried out for phosphoric acid, citric acid and sulfamic acid.

SECTION 16: OTHER INFORMATION

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features.

Employer is obliged to inform all of his workers who have a contact with this product about threats and personal protective measures mentioned in this SDS.

Present Safety Data Sheet was prepared on the basis of components SDS provided by their manufacturers, conducted tests and legislation in force on dangerous substances and mixtures.

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

Full text of indicated H phrases mentioned in section 3:

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

Clarification of aberrations and acronyms:
Acute Tox.4 – Acute toxicity category 4
Skin Corr. 1B - Skin corrosion category 1B
Eye Irrit. 2 - Eye irritation category 2
Skin Irrit. 2 - Skin irritation category 2
Aquatic Chronic 3 – Hazardous to the aquatic environment category 3

Classification and the method of classification in accordance with Regulation (EC) No 1272/2008 (CLP)
Eye Dam.1, H318 – classification in accordance with calculation method
Skin Irrit.2, H315- classification in accordance with calculation method