Inox Renew 500ml

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

1.1. Product identifier

Trade name/designation:

Inox Renew 500ml

Article No.:
T200601

UFI:
XYRP-1T10-T55S-4EVU

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

Use of the substance/mixture:
Surface cleaner (Refined steel, Aluminium, copper)

1.3. Details of the supplier of the safety data sheet

Supplier:

KANDO Service GmbH
Hartleitnerstraße 3
4653 Eberstalzell
Austria
Telephone: +43 (0) 7241 213 79
E-mail: msds@kando.eu

1.4. Emergency telephone number

Vergiftungsinformationszentrale (VIZ), Stubenring 6, 1010 Wien, 24h: 01 406 43 43, Montag - Freitag: 8 bis 16 Uhr, Tel.: 01 406 68 98 (keine medizinische Auskunft) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Corrosive to metals *(Met. Corr. 1)*	H290: May be corrosive to metals.	
Skin corrosion/irritation *(Skin Corr. 1B)*	H314: Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation *(Eye Dam. 1)*	H318: Causes serious eye damage.	

2.2. Label elements

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

Hazard pictograms:



GHS05
Corrosion

Signal word: Danger

Inox Renew 500ml

Hazard components for labelling:
orthophosphoric acid

Hazard statements for physical hazards	
H290	May be corrosive to metals.

Hazard statements for health hazards	
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Supplemental hazard information: none

Precautionary statements Prevention	
P280	Wear protective gloves/protective clothing and eye protection/face protection.

Precautionary statements 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/ .

Precautionary statements Disposal	
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

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2.3. Other hazards
Other adverse effects:
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
Determination of endocrine disrupting properties: not applicable

SECTION 3: Composition/information on ingredients

3.2. Mixtures
Additional information:
Ingredients according to detergents guidline 648/2004/EC: <5% non-ionic surfactants

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 7664-38-2 EC No.: 231-633-2 Index No.: 015-011-00-6 REACH No.: 01-2119485924-24	**orthophosphoric acid** Acute Tox. 4 (H302), Eye Dam. 1 (H318), Met. Corr. 1 (H290), Skin Corr. 1B (H314) Danger **Specific concentration limit (SCL)** Skin Corr. 1B; H314: C ≥ 25% Skin Irrit. 2; H315: 10% ≤ C < 25% Eye Dam. 1; H318: C ≥ 25% Eye Irrit. 2; H319: 10% ≤ C < 25% **Acute Toxicity Estimate** ATE (oral) 500 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, gases) > 5 ppmV ATE (inhalation, vapour) ≥ 50 mg/L ATE (inhalation, dust/mist) > 5 mg/L	≤ 8 %
CAS No.: 77-92-9 EC No.: 201-069-1 Index No.: 607-750-00-3 REACH No.: 01-2119457026-42	**citric acid** Eye Irrit. 2 (H319), STOT SE 3 (H335) Warning **Acute Toxicity Estimate** ATE (oral) > 2,000 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, vapour) ≥ 50 mg/L ATE (inhalation, dust/mist) > 5 mg/L	≤ 2 %

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 53320-86-8 EC No.: 258-476-2 REACH No.: 01-2119489772-23	**Silicic acid, lithium magnesium sodium salt** The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP]. **Acute Toxicity Estimate** ATE (oral) ≥ 5,000 mg/kg ATE (dermal) ≥ 5,000 mg/kg ATE (inhalation, vapour) ≥ 50 mg/L	≤ 2 %

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:
Always seek medical advice as soon as possible in case of serious or persistent disorders.

Following inhalation:
Have them sit upright, get them out into the fresh air, make sure they are calm and take them to hospital immediately.

In case of skin contact:
Remove contaminated clothing, rinse skin with plenty of water and take to hospital immediately.

After eye contact:
First rinse with water for a long time, (remove contact lenses if this is easily possible), then consult a doctor.

Following ingestion:
Rinse mouth, do not induce vomiting and take to hospital immediately.

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

Dermal: Chemical burns, redness, pain, severe burns
Eye contact: Chemical burn, redness, blurred vision, pain
oral: Chemical burns, shortness of breath, vomiting, blisters on lips and tongue, burning pain in mouth, throat, oesophagus and stomach.
inhalation: Headache, Dizziness, Nausea, Dizzy, Unconsciousness

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

none

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Carbon dioxide (CO2), Extinguishing powder, Foam, Water spray jet

Unsuitable extinguishing media:
none

5.2. Special hazards arising from the substance or mixture

none

5.3. Advice for firefighters

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:
Do not step in or touch spilled substances and avoid inhalation of fumes, smoke, dust and vapours by staying on the side facing the wind. Remove contaminated clothing and used contaminated protective equipment and dispose of safely.

6.1.2. For emergency responders
No data available

6.2. Environmental precautions
Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up
Other information:
Allow to be absorbed by absorbent material.

6.4. Reference to other sections
For more information: See section 8 & 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Protective measures
Advices on safe handling:
Handle with care to avoid spillage.

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7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels:
Store in a well-sealed container in a closed, frost-free and ventilated room.
Storage class (TRGS 510, Germany): 8B – Non-combustible corrosive substances
Further information on storage conditions:
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. It must be kept in a well-ventilated area, away from direct sunlight, at temperatures below 50°C / 122°F and away from any source of combustion.

7.3. Specific end use(s)
No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
MAK (AT)	**orthophosphoric acid** CAS No.: 7664-38-2 EC No.: 231-633-2	② 2 mg/m³ ⑤ (max. 4x15 min./Schicht)
IOELV (EU)	**orthophosphoric acid** CAS No.: 7664-38-2 EC No.: 231-633-2	① 1 mg/m³ ② 2 mg/m³
MAK (AT)	**orthophosphoric acid** CAS No.: 7664-38-2 EC No.: 231-633-2	① 1 mg/m³

8.1.2. Biological limit values
No data available

8.1.3. DNEL-/PNEC-values
No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

The level of protection and types of controls required will depend on the potential exposure conditions. Adequate ventilation should be provided so that exposure limits are not exceeded. For more information See section 7

8.2.2. Personal protection equipment



Eye/face protection:

Keep eye wash bottle within reach. Wear tight-fitting safety glasses. In case of exceptional processing problems, wear a face shield and protective suit.

Skin protection:

Handle with Viton protective gloves. Breakthrough time: > 480 min., layer thickness: 0.7 mm, according to EN 374. Check gloves carefully before use. Remove gloves carefully without touching the outside with the bare hand. Suitability for a specific workplace must be discussed with the manufacturer of the protective gloves. Wash and dry the hands.

Respiratory protection:

Use with adequate exhaust ventilation. If breathing hazards are present, use an air-purifying face mask if necessary. For protection against these stressful levels, use type ABEK.

Other protection measures:

Impermeable clothing. The type of protective equipment depends on the concentration and quantity of hazardous substances in the workplace concerned.

8.2.3. Environmental exposure controls

Comply with applicable environmental regulations that limit releases to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions. For more information, see sections 6 and 13 of the safety data sheet.

SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid
Colour: blue
Odour: characteristic
flammability: No data available

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	1		
Melting point	0 °C		
Freezing point	*No data available*		
Initial boiling point and boiling range	100 °C		
Flash point	*not applicable*		② The product is not flammable.
Evaporation rate	0.3		② n-BuAc= 1
Auto-ignition temperature	*No data available*		
Upper/lower flammability or explosive limits	*No data available*		
Vapour pressure	2,332 Pa	20 °C	
Vapour density	*No data available*		
Density	*No data available*		
Relative density	1.15	20 °C	
Bulk density	*not applicable*		
Water solubility	practically insoluble		

Inox Renew 500ml

Parameter	Value	at °C	① Method ② Remark
Partition coefficient: n-octanol/water	*not applicable*		
Dynamic viscosity	450 mPa* s	20 °C	
Kinematic viscosity	391 mm²/s	40 °C	

9.2. Other information
The product is not flammable.

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
none

10.4. Conditions to avoid
Protect from sunlight. Do no expose to temperatures exceeding 50 °C.

10.5. Incompatible materials
Oxidants, Base

10.6. Hazardous decomposition products
No decomposition when used as directed.

SECTION 11: Toxicological information

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

Toxicological information

Acute Toxicity Estimate for Mixtures
ATE (oral): >2,000 mg/kg
ATE (dermal): >2,000 mg/kg
orthophosphoric acid CAS No.: 7664-38-2 EC No.: 231-633-2
ATE oral: 500 mg/kg
LD_{50} oral: 500 mg/kg (Ratte)
LD_{50} dermal: >2,000 mg/kg (Ratte)
LC_{50} Acute inhalation toxicity (gas): >5 ppmV
LC_{50} Acute inhalation toxicity (vapour): ≥50 mg/L 4 h (Rat)
LC_{50} Acute inhalation toxicity (dust/mist): >5 mg/L (Ratte)
citric acid CAS No.: 77-92-9 EC No.: 201-069-1
LD_{50} oral: >2,000 mg/kg (Rat)
LD_{50} dermal: >2,000 mg/kg (Rat)
LC_{50} Acute inhalation toxicity (vapour): ≥50 mg/L 4 h (Rat)
LC_{50} Acute inhalation toxicity (dust/mist): >5 mg/L 4 h (Rat)
Silicic acid, lithium magnesium sodium salt CAS No.: 53320-86-8 EC No.: 258-476-2
LD_{50} oral: ≥5,000 mg/kg (Ratte)
LD_{50} dermal: ≥5,000 mg/kg (Kaninchen)
LC_{50} Acute inhalation toxicity (vapour): ≥50 mg/L 4 h (Ratte)

Skin corrosion/irritation:
H314 Skin Corr. 1B, H318 Eye Dam. 1: Causes severe skin burns and eye damage.

Serious eye damage/irritation:
H314 Skin Corr. 1B, H318 Eye Dam. 1: Causes severe skin burns and eye damage.

Respiratory or skin sensitisation:
Not classified according to the CLP calculation method.

Germ cell mutagenicity:
Not classified according to the CLP calculation method.

Carcinogenicity:
Not classified according to the CLP calculation method.

Reproductive toxicity:
Not classified according to the CLP calculation method.

STOT-single exposure:
Not classified according to the CLP calculation method.

STOT-repeated exposure:
Not classified according to the CLP calculation method.

Aspiration hazard:
Not classified according to the CLP calculation method.

Additional information:
No further relevant information available.

11.2. Information on other hazards
No data available

SECTION 12: Ecological information

12.1. Toxicity

orthophosphoric acid CAS No.: 7664-38-2 EC No.: 231-633-2
LC_{50}: 138 mg/L 4 d (fish, Gambusia affinis (Moskitofisch))
EC_{50}: 100 mg/L 2 d (crustaceans, Daphnia magna (Großer Wasserfloh))
EC_{50}: 100 mg/L 3 d (crustaceans, Daphnia)
NOEC: 100 mg/L 3 d (Algae/water plant, Desmodesmus subspicatus)
NOEC: 56 mg/L 2 d (crustaceans, Daphnia)
ErC_{50}: >100 mg/L 3 d (Algae/water plant, Desmodesmus subspicatus)
LC_{50}: 138 mg/L 4 d (fish, Gambusia affinis)
citric acid CAS No.: 77-92-9 EC No.: 201-069-1
LC_{50}: 440 – 760 mg/L 2 d (fish)
LC_{50}: 1,535 mg/L (crustaceans, Daphnia)
EC_{50}: 160 mg/L 2 d (crustaceans)
EC_{50}: 1,535 mg/L 1 d (crustaceans, Daphnia)
NOEC: 425 mg/L (Algae/water plant, Scenedesmus quadricauda)

12.2. Persistence and degradability

citric acid CAS No.: 77-92-9 EC No.: 201-069-1
Biodegradation: Yes, rapidly

Additional information:
The surfactants contained in this mixture comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

12.3. Bioaccumulative potential

citric acid CAS No.: 77-92-9 EC No.: 201-069-1
Log K_{OW}: -1.57

Partition coefficient: n-octanol/water:
not applicable

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment

orthophosphoric acid CAS No.: 7664-38-2 EC No.: 231-633-2
Results of PBT and vPvB assessment: —
citric acid CAS No.: 77-92-9 EC No.: 201-069-1
Results of PBT and vPvB assessment: —
Silicic acid, lithium magnesium sodium salt CAS No.: 53320-86-8 EC No.: 258-476-2
Results of PBT and vPvB assessment: —

12.6. Endocrine disrupting properties
No information available.

12.7. Other adverse effects
water hazard class 1: slightly hazardous to water

SECTION 13: Disposal considerations

13.1. Waste treatment methods
The product may be disposed of in the specified use concentration if neutralised to pH 7. Any restrictions imposed by local authorities must always be respected.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
UN 3264	UN 3264	UN 3264	UN 3264
14.2. UN proper shipping name			
CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphorsäure)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphorsäure)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphorsäure)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphorsäure)
14.3. Transport hazard class(es)			
 8	 8	 8	 8
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
No	No	No	No
14.6. Special precautions for user			
Special Provisions: 274 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E2 **Hazard identification number (Kemler No.):** 80 **Classification code:** C1 **Tunnel restriction code:** (E)	**Special Provisions:** 274 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E2 **Classification code:** C1	**Special Provisions:** 274 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E2 **EmS-No.:** F-A, S-B	**Special Provisions:** A3 **Limited quantity (LQ):** Y840 **Excepted Quantities (EQ):** E2

14.7. Maritime transport in bulk according to IMO instruments
not applicable

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Restrictions on use:

Ingredients according to detergents guidline 648/2004/EC: <5% non-ionic surfactants

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:

Volatile organic compound (VOC) content: 0 g/L

15.1.2. National regulations

No data available

15.2. Chemical Safety Assessment

No data available

15.3. Additional information

non-ionic surfactants < 5%

SECTION 16: Other information

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16.1. Indication of changes

1.2.	Relevant identified uses of the substance or mixture and uses advised against
2.3.	Other hazards
7.2.	Conditions for safe storage, including any incompatibilities
9.1.	Information on basic physical and chemical properties
16.1.	Indication of changes
16.2.	Abbreviations and acronyms
16.4.	Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
16.5.	List of relevant hazard statements and/or precautionary statements from sections 2 to 15

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16.2. Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DNEL	derived no-effect level
EC_{50}	Effective Concentration 50%
EG	European Community
EN	European Standard
ES	Exposure scenario
EU	European Union
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC_{50}	Lethal (fatal) Concentration 50%
LD_{50}	Lethal (fatal) Dose 50%
MAK	Maximum concentration in the workplace air (CH)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NOEC	No Observed Effect Concentration
OSHA	Occupational Safety & Health Administration
PBT	persistent and bioaccumulative and toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail

SCL	Specific concentration limit
Tox.	Toxicity
TRGS	Technische Regeln für Gefahrstoffe
UFI	Unique Formula Identifier
UN	United Nations
VOC	Volatile organic compounds

16.3. Key literature references and sources for data
No data available

* 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Corrosive to metals *(Met. Corr. 1)*	H290: May be corrosive to metals.	
Skin corrosion/irritation *(Skin Corr. 1B)*	H314: Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation *(Eye Dam. 1)*	H318: Causes serious eye damage.	

* 16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements	
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

16.6. Training advice
No data available

16.7. Additional information
To the best of our knowledge, the information contained herein is accurate. However, neither the above-mentioned supplier nor its subsidiaries assume any liability with regard to the correctness or completeness of the information provided. A final determination of the suitability of individual materials is the sole responsibility of the user. All materials may involve unknown risks and should be used with caution. While certain risks are described herein, we cannot guarantee that these are the only possible risks.

* Data changed compared with the previous version.