Termorens Gel

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Issue date: 26.11.2025 Version: 1

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

1.1. Product identifier

Trade name:	Termorens Gel
UFI:	HU80-E0NV-G00Y-Y00T

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

Relevant identified uses:	Gel for removing limescale, rust, biofilm etc.

1.3. Details of the supplier of the safety data sheet

Armaturjonsson AS
Berghagan 4 B
1405 LANGHUS
Norway
Tel: +47 22 63 17 00
E-mail: firmapost@armaturjonsson.no
www.armaturjonsson.no

1.4. Emergency telephone number

Spain: + 34 91 562 04 20
Slovakia: +421 2 5477 4166

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin Corr. 1; H314
Eye Dam. 1; H318

Full text of H-statements: see section 16.

Adverse physicochemical, human health and environmental effects:

Causes severe skin burns and eye damage.

2.2. Label elements

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

Signal word:	DANGER
Hazardous ingredients:	Phosphoric acid 10-20%
Hazard statements:	H314 - Causes severe skin burns and eye damage
Precautionary statements:	P102 - Keep out of reach of children. P280 - Wear protective gloves/protective clothing/eye protection/face protection.

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 or a doctor.
P501 - Dispose of contents/container to an approved waste disposal facility.

2.3. Other hazards

PBT / vPvB: This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, annex XIII.

Endocrine disrupting properties: The mixture does not contain any substances with endocrine disrupting properties in concentrations ≥ 0.1%.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	Content	Classification
Phosphoric acid	CAS-no. 7664-38-2 EC-no. 231-633-2 Index-no. 015-011-00-6 REACH-no. 01-2119485924-24	10 - 20 %	Met. Corr. 1; H290 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318
Citric acid	CAS-no. 5949-29-1 EC-no. 201-069-1 Index-no. 607-750-00-3 REACH-no. 01-2119457026-42	5 - 10 %	Eye Irrit. 2; H319 STOT SE 3; H335
Sulphuric acid (substance with an EU exposure limit)	CAS-no. 7664-93-9 EC-no. 231-639-5 Index-no. 016-020-00-8 REACH-no. 01-2119458838-20	< 0.1 %	Met. Corr. 1; H290 Skin Corr. 1A; H314

Specific concentration limits:

Phosphoric acid:
Eye Irrit. 2; H319: 10 % ≤ C < 25 %
Skin Corr. 1B; H314: C ≥ 25 %
Skin Irrit. 2; H315: 10 % ≤ C < 25 %

Sulphuric acid:
Eye Irrit. 2; H319: 5 % ≤ C < 15 %
Skin Corr. 1A; H314: C ≥ 15 %
Skin Irrit. 2; H315: 5 % ≤ C < 15 %

Comments: Full text of H-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: In case of doubt or persistent symptoms, consult always a physician. Emergency telephone number, see section 1.4.

In case of inhalation: Remove person to fresh air and keep comfortable for breathing. Seek medical attention if symptoms persist.

In case of skin contact: Rinse immediately with plenty of water. Take off contaminated clothing. Continue rinsing with lukewarm water for 30-60 minutes. Call a physician immediately. Skin burns should be treated by a physician.

In case of contact with eyes: Rinse immediately with lukewarm water while holding the eyes wide open. Remove contact lenses, if present and easy to do. Continue rinsing for 30 minutes. Call a physician immediately. Transport to doctor/hospital. Continue rinsing during transport.

In case of ingestion:	Rinse mouth. Give plenty of water to drink. Do not give an unconscious person anything to drink. Do not induce vomiting. Call a physician immediately. Transport to hospital. Bring safety data sheet.

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

In case of inhalation:	Inhalation of vapor/spray mist may cause severe irritation/corrosive damage to the respiratory tract.
In case of skin contact:	Burning and severe skin corrosion. Forms blisters and may cause ulceration.
In case of contact with eyes:	Corrosive to the eyes and may cause permanent damage. Symptoms such as severe burning, runny eyes, redness and blurred vision may occur. In severe cases there is a risk of eye damage / blindness.
In case of ingestion:	May cause burns if swallowed. Causes burning pain in the mouth, throat and esophagus. Risk of serious permanent damage.

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

Other information:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Do not use straight streams.

5.2. Special hazards arising from the substance or mixture

Fire hazard:	Not classified as flammable.
Hazardous decomposition products in case of fire:	May emit corrosive fumes. Carbon oxides (CO, CO_2). Phosphorus oxides. Phosphine.

5.3. Advice for firefighters

Precautionary measures fire:	Cool containers with dispersed water jet / place them in safety.
Protection during firefighting:	Wear a self-contained breathing apparatus (SCBA) and appropriate personal protective equipment (PPE).
Other information:	Do not allow run-off from firefighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures:	Provide adequate ventilation. Do not breathe vapour / mist. Avoid contact with skin and eyes. Use personal protective equipment as required. Refer to section 8. Evacuate unnecessary personnel.

6.2. Environmental precautions

Prevent spillage to sewer, waterway or ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up:	Take up liquid spill into absorbent material, e.g.: sand, soil, vermiculite. Shovel into suitable and closed container for disposal. Flus the area with plenty of water. Smaller amounts: Rinse contaminated surfaces with plenty of water.
Other information:	Dispose of materials or solid residues at an authorized site. Refer to section 13.

6.4. Reference to other sections

For further information refer to section 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling:	Ensure good ventilation of the workstation. Carefully pour the mixture into water when diluting, not the other way around. Avoid inhalation of vapour/mist. Avoid contact with skin and eyes. Wear personal protective equipment. Refer to section 8.
Hygiene measures:	Wash hands after each work shift and before eating, smoking or using the toilet. Do not eat, drink or smoke when using this product. Wash contaminated clothing before using.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions:	Store in tightly closed original packaging in a well-ventilated place. Store in a dry and cool place.
Incompatible materials:	Strong oxidizers. Strong bases. Alkalis. Metals.

7.3. Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limit:

EU:

Phosphoric acid			
Local name	Product identifier	Workplace exposure limit	Comments
Orthophosphoric acid	CAS-no 7664-38-2	8 h: 1 mg/m³ 15 min: 2 mg/m³	8, 9
Sulphuric acid			
Local name	Product identifier	Workplace exposure limit	Comments
Sulphuric acid (mist)	CAS-no 7664-93-9	8 h: 0.05 mg/m³	

Comments:	8 - 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. 9 - The mist is defined as the thoracic fraction.
Regulatory reference:	Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

SPAIN:

Phosphoric acid			
Local name	Product identifier	Workplace exposure limit	Comments
Ácido ortofosfórico	CAS-no 7664-38-2	VLA-ED: 1 mg/m³ VLA-EC: 2 mg/m³	VLI, s
2-propanol			
Local name	Product identifier	Workplace exposure limit	Comments
Isopropanol	CAS-no 67-63-0	VLA-ED: 200 ppm / 500 mg/m³ VLA-EC: 400 ppm / 1000 mg/m³	VLB, s
Sulphuric acid			
Local name	Product identifier	Workplace exposure limit	Comments
Ácido sulfúrico (niebla)	CAS-no 7664-93-9	VLA-ED: 0.05 mg/m³	VLI, s, d, az

Comments:
VLB - Chemical substance that have a specific Biological Limit in this document.
VLI - Chemical substance for which the EU once established an indicative limit value.
az - When selecting a suitable exposure control method, consideration should be given to possible limitations and interferences that may arise in the presence of other sulphur compounds.
d - See EN 481: Workplace atmospheres - Size fraction definitions for measurement of airborne particles.
s - This substance is totally or partially prohibited from being marketed and used as a plant protection product and/or as a biocide. For detailed information about the prohibitions, please consult the relevant documentation.

Regulatory reference: Límites de exposición profesional para agentes químicos en España.

SLOVAKIA:

Phosphoric acid			
Local name	Product identifier	Workplace exposure limit	Comments
Kyselina fosforečná	CAS-no 7664-38-2	8 h: 1 mg/m³ 15 min: 2 mg/m³	
2-propanol			
Local name	Product identifier	Workplace exposure limit	Comments
Izopropylalkohol (propán-2-ol)	CAS-no 67-63-0	8 h: 200 ppm / 500 mg/m³ 15 min: 400 ppm / 1000 mg/m³	
Sulphuric acid			
Local name	Product identifier	Workplace exposure limit	Comments
Kyselina sírová (hmla)	CAS-no 7664-93-9	8 h: 0.05 mg/m³	

Regulatory reference: Nariadenie vlády Slovenskej republiky z 10. mája 2006 o ochrane zamestnancov pred rizikami súvisiacimi s expozíciou chemickým faktorom pri práci.

Biological limit:

SPAIN:

2-propanol					
Local name	Product identifier	Biological indicator	Limit value	Sampling time	Comments
Isopropanol	CAS-no 67-63-0	Acetone in urine	40 mg/l	End of the work week	F, I

Comments:
F - Background. The indicator is generally present in detectable amounts in people not occupationally exposed. These background levels are considered in the value.

I - The biological indicator is nonspecific since it can be found after exposure to other chemical agents.

Regulatory reference: Límites de exposición profesional para agentes químicos en España.

DNEL:

Phosphoric acid

Group	Route of exposure	DNEL
Worker	Inhalation, long-term, local effect	1 mg/m³
Worker	Inhalation, long-term, systemic effect	10.7 mg/m³
Worker	Inhalation, acute, local effect	2 mg/m³
Consumer	Inhalation, long-term, local effect	0.36 mg/m³
Consumer	Inhalation, long-term, systemic effect	4.57 mg/m³
Consumer	Dermal, long-term, systemic effect	0.1 mg/kg bw/day

PNEC:

Citric acid

Route of exposure	PNEC
Freshwater	0.44 mg/l
Marine water	0.044 mg/l
Freshwater sediment	7.52 mg/kg dry weight
Marine water sediment	0.752 mg/kg dry weight
Soil	29.2 mg/kg dry weight

8.2. Exposure controls

Appropriate engineering controls:

Appropriate engineering controls: Ensure good ventilation of the workstation. Personal protective equipment must be CE marked and should be selected in collaboration with the supplier of such equipment. The recommended protective equipment and the specified standards are indicative. Standards should be of the latest version. Risk assessment of the actual workplace / operation (actual risk) may result in other protective measures.

Eye / face protection:

Eye protection: Wear tight fitting safety glasses or facial screen.

Standard: ISO 16321

Hand protection:

Suitable gloves: Wear suitable chemical resistant gloves. Butyl. Viton. Neoprene. PVC. Nitrile. Natural rubber.

Breakthrough time: No information available for the product.
Phosphoric acid: ≥ 8 hours

Glove thickness: Butyl / Neoprene / PVC / Natural rubber: ≥ 0,5 mm
Viton: ≥ 0,4 mm
Nitrile ≥ 0,35 mm

Comment: Breakthrough time and glove thickness are not measured but suggested based on information about the individual substances in the mixture. Other conditions may reduce the breakthrough time.

Standard: EN 374

Skin protection:

Suitable protective clothing: Wear suitable protective clothing or to protect against any possibility of skin contact.

Respiratory protection:

Respiratory protection:	In case of insufficient ventilation or if there is a risk of inhalation of vapours/mists, wear suitable respiratory equipment with combination filter type AB/P2.
Standard:	EN 14387

Environmental exposure controls:

Prevent spillage to sewer, waterway or ground.

Other information:

Safety shower and eye wash station must be available at the workplace.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Yellow-brown
Odour:	Slight sour smell
Melting point / freezing point:	No data available
Boiling point:	No data available
Flammability:	Not flammable
Explosion limit:	Not applicable
Flash point:	Not applicable
Auto-ignition temperature:	Not self-igniting
Decomposition temperature:	No data available
pH:	0.2
Kinematic viscosity:	≈ 4 mPa.s (dynamic viscosity)
Solubility:	Soluble in water
Partition coefficient n-octanol/water (Log Pow):	No data available
Vapour pressure:	No data available
Density / relative density:	1145 kg/m³
Relative vapour density:	No data available
Particle characteristics:	Not applicable

9.2. Other information

Comments:	No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Phosphoric acid may produce hydrogen gas in contact with metals.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong oxidizers. Strong bases. Alkalis. Metals.

10.6. Hazardous decomposition products

Under normal conditions of storage hazardous decomposition products should not be produced. See also section 5.2.

SECTION 11: Toxicological information

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

Acute toxicity

Assessment of classification, acute toxicity (oral),	Not classified. (Based on available data, the classification criteria are not met.)
Assessment of classification, acute toxicity (dermal):	Not classified. (Based on available data, the classification criteria are not met.)
Assessment of classification, acute toxicity (inhalation):	Not classified. (Based on available data, the classification criteria are not met.)

Components:

Phosphoric acid (CAS-no. 7664-38-2)	
LD50 dermal, rabbit	2740 mg/kg
Citric acid (CAS-no 5949-29-1)	
LD50 oral, mouse	5400 mg/kg
LD50 dermal, rat	2000 mg/kg

Skin corrosion / irritation

Assessment of classification: Causes severe skin burns and eye damage.

Serious eye damage/ irritation

Assessment of classification: Causes serious eye damage.

Respiratory or skin sensitisation

Assessment of classification: Not classified. (Based on available data, the classification criteria are not met.)

Germ cell mutagenicity

Assessment of classification: Not classified. (Based on available data, the classification criteria are not met.)

Components:

Phosphoric acid (CAS-no. 7664-38-2)
Ames test: negative (OECD 471) Chromosome Aberration Test: negative (OECD 473)

Carcinogenicity

Assessment of classification: Not classified. (Based on available data, the classification criteria are not met.)

Reproductive toxicity

Assessment of classification: Not classified. (Based on available data, the classification criteria are not met.)

Components:

Phosphoric acid (CAS-no. 7664-38-2)
Fertility: NOAEL oral, rat > 500 mg/l (OECD 422)

Development: NOAEL oral, rat > 410 mg/l (OECD 422)

STOT – single exposure

Assessment of classification: Not classified. (Based on available data, the classification criteria are not met.)

STOT – repeated exposure

Assessment of classification: Not classified. (Based on available data, the classification criteria are not met.)

Aspiration hazard

Assessment of classification: Not classified. (Based on available data, the classification criteria are not met.)

Symptoms of exposure

In case of inhalation: Inhalation of vapor/spray mist may cause severe irritation/corrosive damage to the respiratory tract.

In case of skin contact: Burning and severe skin corrosion. Forms blisters and may cause ulceration.

In case of contact with eyes: Corrosive to the eyes and may cause permanent damage. Symptoms such as severe burning, runny eyes, redness and blurred vision may occur. In severe cases there is a risk of eye damage / blindness.

In case of ingestion: May cause burns if swallowed. Causes burning pain in the mouth, throat and esophagus. Risk of serious permanent damage.

11.2 Information on other hazards

Endocrine disruptors properties: Not relevant.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute): Not classified. (Based on available data, the classification criteria are not met.)

Hazardous to the aquatic environment, long-term (chronic): Not classified. (Based on available data, the classification criteria are not met.)

Components:

Phosphoric acid (CAS-no. 7664-38-2)	
LC50 fish (96 h)	3 - 3.25 mg/l, Lepomis macrochirus
EC50 crustacean (48 h)	> 100 mg/l, Daphnia magna (OECD 202)
ErC50 algae (72 h)	> 100 mg/l, Desmodesmus subspicatus (OECD 201)
NOEC algae (72 h)	100 mg/l, Desmodesmus subspicatus (embryo and sac fry)
EC50 bacteria (3 h)	> 1000 mg/l, activated sludge (OECD 209)
Citric acid (CAS-no 5949-29-1)	
LC50 fish (96 h)	440-706 mg/l
EC50 crustacean (24 h)	1535 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability: All organic components are biodegradable.

Components:

Citric acid (CAS-no 5949-29-1)	
Biological oxygen demand:	0,526 g O_2/g substance
Chemical oxygen demand:	0,728 g O_2/g substance
Biodegradation:	Biodegradable

12.3. Bioaccumulative potential

Bioaccumulative potential: No available information on product.

Components:

Phosphoric acid (CAS-no. 7664-38-2)	
Log Pow:	-2
Citric acid (CAS-no 5949-29-1)	
Log Pow:	-4,8 - -0,2

12.4. Mobility in soil

Mobility: Soluble in water. May spread in the aquatic environment.

12.5. Results of PBT and vPvB assessment

PBT / vPvB: This mixture does not contain substances that are assessed to be PBT or vPvB in concentrations ≥ 0,1 %.

12.6. Endocrine disrupting properties

Endocrine disrupting properties: Not relevant.

12.7. Other adverse effects

Additional information: Larger spills may have negative impact on the aquatic environment due to local pH decrease. Phosphate increases algae growth in water.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods: Hazardous waste. Remove to an authorized waste treatment plant. Emptying into drains is not recommended.

Additional information: The stated LoW code is indicative and must be considered in relation to the actual condition of the chemical. The final code must be determined by the user, based on the actual use of the chemical.

European List of Waste (LoW) code: 06 01 04* phosphoric and phosphorous acid

SECTION 14: Transport information

14.1. UN number

ADR / RID / ADN: 1805
IMDG: 1805
ICAO / IATA: 1805

14.2. UN proper shipping name

ADR / RID / ADN: PHOSPHORIC ACID SOLUTION
IMDG: PHOSPHORIC ACID SOLUTION
ICAO / IATA: PHOSPHORIC ACID SOLUTION

14.3. Transport hazard class(es)

ADR / RID / ADN: 8
IMDG: 8
ICAO / IATA: 8

14.4. Packing group

ADR / RID / ADN:	III
IMDG:	III
ICAO / IATA:	III

14.5. Environmental hazards

Dangerous for the environment:	No

14.6. Special precautions for user

Classification code (ADR):	C1
Limited quantities (ADR):	5 L
Excepted quantities (ADR):	E1
Tunnel restriction code (ADR):	E
Hazard identification No (ADR):	80
Transport category (ADR):	3
Mixed packing provisions (ADR):	MP19

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

Regulations:	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH Regulation), with later amendments. Directive 2008/98/EC of 19 November 2008 on waste and repealing certain Directives. Directive 2008/68/EC of 24 September 2008 on the inland transport of dangerous goods.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Classification and method used for the classification of the mixture according to Regulation (EC) 1272/2008 (CLP):

Skin Corr. 1; H314	pH extreme
Eye Dam. 1; H318	Implicit

Full text of H-statements in section 2 and 3:

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.

Abbreviations and acronyms:

DNEL	Derived-No Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response
LC50	Median lethal concentration.
LD50	Median lethal dose.
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
vPvB	Very Persistent and Very Bioaccumulative

Data sources:	Safety Data Sheet from the supplier/manufacturer.
Prepared by:	SDS-Chemie, Bente Frogner

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.