Safety data sheet (English translation without any country-specific legislation)
according to Regulation (EC) No 1907/2006, Article 31

Printing date 30.05.2025 Rev. 1 Revision: 30.05.2025

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

· **1.1 Product identifier**
· **Trade name: X-Cleaner Forte**

· **1.2 Relevant identified uses of the substance or mixture and uses advised against** Cleaning agent/ Cleaner

· **Application of the substance / the mixture** Acid descaler detergent

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Litokol Lab S.p.A.
Via G.Falcone, 13/1
42048 Rubiera (RE) - Italia
Tel. +39 0522 626391 - Fax. +39 0522 620150

· **Further information obtainable from:** Litokol Lab S.p.A. - Email: productsafety@litokol.com

· **1.4 Emergency telephone number:**
ITALY - POISONS CENTRES (24h / 365d):
• Milano - Azienda Ospedaliera Niguarda Ca' Granda - Tel. +39 02 66101029
• Pavia - Centro Nazionale d'Informazione Tossicologica - IRCCS Fondazione Salvatore Maugeri Clinica del Lavoro e della riabilitazione - Tel. +39 0382 24444
• Firenze - Azienda Ospedaliera Universitaria "Careggi" U.O. Tossicologia Medica - Tel. +39 055 7947819
• Bergamo - Azienda Ospedaliera "Papa Giovanni XXIII", tossicologia clinica - Tel. +39 800 883300
• Roma - CAV Policlinico "Umberto I", PRGM tossicologia d'urgenza - Tel. +39 06 49978000
• Roma - CAV del Policlinico "Agostino Gemelli", Servizio di tossicologia clinica - Tel. +39 06 3054343
• Roma - CAV "Ospedale Pediatrico Bambino Gesù", dipartimento emergenza e accettazione DEA - Tel. +39 06 68593726
• Foggia - Azienda Ospedaliera Universitaria riuniti, Foggia - Tel. +39 800 183459
• Napoli - Azienda Ospedaliera "Antonio Cardarelli", III Servizio di anestesia e rianimazione - Tel. +39 081 5453333
• Verona - CAV dell'Azienda ospedaliera integrata (AOUI) di Verona sede di Borgo Trento - Tel. +39 800 011858

Litokol Lab S.p.A.
Technical support: Tel. +39 0522 622852 (Monday - Friday: 8.30-12.30 AM , 2.00-6.00 PM)

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**
Eye Irrit. 2 H319 Causes serious eye irritation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms**



GHS07

· **Signal word** Warning
· **Hazard statements**
H319 Causes serious eye irritation.
· **Precautionary statements**

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P264	Wash contaminated body parts thoroughly after handling.
P280	Wear 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.
P337+P313	If eye irritation persists: Get medical advice/attention.

· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** The mixture does not contain substances that pose such a hazard at concentrations >0.1%.
· **vPvB:** The mixture does not contain substances that pose such a hazard at concentrations >0.1%.

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· **Determination of endocrine-disrupting properties**
The mixture does not contain substances that pose such a hazard at concentrations >0.1%.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** Mixture consisting of the following components:

· **Dangerous components:**

CAS: 77-92-9 EINECS: 201-069-1 Index number: 607-750-00-3 Reg.nr.: 01-2119457026-42-XXXX	citric acid	Eye Irrit. 2, H319; STOT SE 3, H335	≥10-≤15%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:** Immediately remove any clothing soiled by the product.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
Generally the product does not irritate the skin.
If skin irritation continues, consult a doctor.
Immediately rinse with water.
· **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Protect unharmed eye.
· **After swallowing:** Do not induce vomiting; call for medical help immediately.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
CO2, powder or water spray. Fight larger fires with water spray.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· **5.3 Advice for firefighters**
· **Protective equipment:** Do not inhale explosion gases or combustion gases.
· **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.

· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Keep away from heat and direct sunlight.
· **Information about fire - and explosion protection:**
No special measures required.
The product is not flammable.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Unsuitable material for receptacle: aluminium.
· **Information about storage in one common storage facility:** Store away from oxidising agents.
· **Further information about storage conditions:**
Store in a cool place.
Keep container tightly sealed.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
CAS: 77-92-9 citric acid	
AGW (Germany)	Long-term value: 2 E mg/m³ 2(I);DFG, Y

· **Regulatory information** AGW (Germany): TRGS 900
· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Appropriate engineering controls** Ensure good ventilation in the workplace.
· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Do not eat or drink while working.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

· **Respiratory protection:** Not necessary if room is well-ventilated.

· **Hand protection**
Preventive skin protection by use of:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves** Chloroprene rubber, CR
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 16523-1:2015: Level 6).
· **Eye/face protection**



Tightly sealed goggles

· **Body protection:** Light weight protective clothing

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SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Physical state**	Liquid
· **Colour:**	Light blue
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	<0 °C
· **Boiling point or initial boiling point and boiling range**	>100 °C
· **Flammability**	Non-flammable mixture
· **Lower and upper explosion limit**	
· **Lower:**	Not determined. Non-flammable mixture
· **Upper:**	Not determined. Non-flammable mixture
· **Flash point:**	Not determined.
· **Auto-ignition temperature:**	Not determined. Based on the water content the product does not ignite.
· **Decomposition temperature:**	Not applicable. Mixture is not self-reactive, does not contail organic peroxide and does not decompose under foreseen conditions of use
· **pH at 20 °C**	2.1-3 (sol. 5%)
· **Viscosity:**	
· **Kinematic viscosity**	Not determined.
· **Solubility**	
· **water:**	Soluble.
· **Partition coefficient n-octanol/water (log value)**	Not applicable. The product is a mixture
· **Vapour pressure:**	Not determined. Aqueous solution
· **Density and/or relative density**	
· **Density at 20 °C:**	1.03-1.05 g/cm³
· **Relative gas density**	Not determined.
· **Particle characteristics**	Fluid

· **9.2 Other information**

· **Appearance:**	
· **Form:**	Fluid
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Solvent content:**	
· **VOC (EC)**	0.29 %
· **Change in condition**	
· **Evaporation rate**	Not determined.

· **Information with regard to physical hazard classes** Void

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

· **10.2 Chemical stability**

· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
To avoid thermal decomposition do not overheat.

· **10.3 Possibility of hazardous reactions** Reacts with strong bases

· **10.4 Conditions to avoid** Keep ignition sources away - Do not smoke.

· **10.5 Incompatible materials:** No further relevant information available.

· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

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SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
CAS: 77-92-9 citric acid		
Oral	LD50	5,400 mg/kg (mouse) (OECD TG 401: Acute Oral Toxicity)
Dermal	LD50	>2,000 mg/kg (rat) (OECD TG 402: Acute Dermal Toxicity)

· **Primary irritant effect:**
· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation**
Causes serious eye irritation.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.
· **11.2 Information on other hazards**

· **Endocrine disrupting properties**
None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
CAS: 77-92-9 citric acid	
LC50/ 24h	1,535 mg/l (crustacea - Daphnia magna)
LC50 / 48h	440 mg/l (fish - Leuciscus idus melanotus) (OECD TG 203: Fish, Acute Toxicity Test)
NOEC	425 mg/l /(8d) (algae)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

· **12.7 Other adverse effects**
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Disposal must be made according to official regulations.

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN number or ID number**
· **ADR/RID/ADN, ADN, IMDG, IATA** Void

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· **14.2 UN proper shipping name**	
· **ADR/RID/ADN, ADN, IMDG, IATA**	Void
· **14.3 Transport hazard class(es)**	
· **ADR/RID/ADN, ADN, IMDG, IATA**	
· **Class**	Void
· **14.4 Packing group**	
· **ADR/RID/ADN, IMDG, IATA**	Void
· **14.5 Environmental hazards:**	Not applicable.
· **14.6 Special precautions for user**	Not applicable.
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.
· **UN "Model Regulation":**	Void

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
Regulation (EC) No 1907/2006 (REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals)
Regulation (EC) No 1272/2008 (CLP - Classification, Labelling and Packaging of substances and mixtures)
Compilation of Safety Data Sheet: Reg.UE n. 878/2020 (amending Reg.EC n.1907/2006, Annex II)

· **REACH**
· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **REGULATION (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **REGULATION (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

· **Classification according to Regulation (EC) No 1272/2008**

Serious eye damage/irritation	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

· **Contact:** Litokol Lab S.p.A.
· **Abbreviations and acronyms:**
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
CLP: Classification, Labelling and Packaging
TLV: Threshold Limit Value
TLV-TWA: Threshold Limit Value - Time Weighted Average
TLV-STEL: Threshold Limit Value - Short Term Exposure Limit
PEL: Permissible Exposure Limits (Limiti di esposizione consentiti)
REL: Recommended Exposure Limits (Limiti di esposizione raccomandati)
IOELV: Indicative Occupational Exposure Limit Value
WEELs: Workplace Environmental Exposure Limits (Limiti di esposizione ambientale sul posto di lavoro)
BEI: Biological Exposure Indices
LC50: Lethal Concentration, 50 percent
EC50: Effective Concentration, 50 percent
ErC50: Effective Concentration, 50 percent, reduction of growth rate

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NOEC: No-Observed Effect Concentration
NOELR: No-Observed Effect Loading Rate
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3