

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

### 1.1 Product identifier

#### Trade name/designation

6540000 Scale and rust remover

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

#### Relevant identified uses

\* Cleaning agent

### 1.3 Details of the supplier of the safety data sheet

#### Supplier

AURO Pflanzenchemie AG  
Alte Frankfurter Straße 211 Telephone: +49 531 28141-0  
38122 Braunschweig Telefax: +49 531 28141-72  
Deutschland E-mail: info@auro.de  
Website: www.auro.de

#### Department responsible for information

E-mail (competent person) msds@auro.de

### 1.4 Emergency telephone number

Emergency telephone number +44 1544388535  
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]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].  
Eye Irrit. 2; Serious eye damage/eye irritation; H319 Causes serious eye irritation.

### 2.2 Label elements

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

#### 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.

#### Hazard components for labelling

not applicable

#### Supplemental hazard information

not applicable

### 2.3 Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## SECTION 3: Composition / information on ingredients.

### 3.2 Mixtures

#### Description

## Hazardous ingredients

CAS No. EC No. Index No.	Substance name REACH No. Classification according to Regulation (EC) No 1272/2008 [CLP]	weight-%
5949-29-1 201-069-1 -	<b>Zitronensäure Monohydrat</b> 01-2119457026-42 Eye Irrit. 2 H319	5,00 < 7,00
79-33-4 201-196-2 -	<b>L-(+)-lactic acid</b> 01-2119474164-39-xxxx Skin Irrit. 2 H315 / Eye Dam. 1 H318 Specific concentration limit (SCL): Eye Irrit. 2 H319: >= 1,00 / Eye Dam. 1 H318: >= 3,00 / Skin Irrit. 2 H315: >= 10,00	1,00 < 2,00

## Remark

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

#### Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

#### Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

#### After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

#### Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

#### Self-protection of the first aider

First aider: Pay attention to self-protection!

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

#### Symptoms

In all cases of doubt, or when symptoms persist, seek medical advice.

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

First Aid, decontamination, treatment of symptoms.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

alcohol resistant foam, Carbon dioxide (CO<sub>2</sub>), Powder, spray mist, (water)

#### Unsuitable extinguishing media

Strong water jet

### 5.2 Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

### 5.3 Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ventilate affected area. Do not breathe vapours.

### 6.2 Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

### 6.3 Methods and material for containment and cleaning up

#### For containment

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

#### For cleaning up

Clean using cleansing agents. Do not use solvents.

### 6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: refer to section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advices on safe handling

Avoid contact with skin, eyes and clothes. Avoid respiration of swarf. Personal protection equipment: see section 8 Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

#### Advices on general occupational hygiene

When using do not eat, drink or smoke.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

#### Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

#### Further information on storage conditions

Keep container tightly closed. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

### 7.3 Specific end use(s)

Observe technical data sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

No data available

#### Biological limit values

No data available

### 8.2 Exposure controls

Provide good ventilation. This can be achieved with local or room suction.

#### Personal protection equipment

##### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

##### Hand protection

Suitable material: NBR (Nitrile rubber)

Thickness of the glove material  $\geq$  0,4 mm  
Breakthrough time  $\geq$  480 min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin.

Recommended glove articles: EN ISO 374

#### **Skin protection**

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

#### **Eye/face protection**

Eye glasses with side protection

#### **Body protection**

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

#### **Environmental exposure controls**

Do not allow to enter into surface water or drains.

## **SECTION 9: Physical and chemical properties**

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

#### **Appearance**

Physical state liquid

\* Colour refer to label

#### **Safety characteristics**

Odour characteristic

Odour threshold not determined

\* pH 2,5

Melting point/freezing point not determined

Initial boiling point and boiling range not determined

Flash point not determined

Evaporation rate at 20°C not determined

Burning time not applicable

Lower explosion limit at 20°C not determined

Upper explosion limit at 20°C not determined

Vapour pressure at 20°C 22,99 mbar

Density at 20°C 1,025 kg/l

Water solubility at 20°C partially soluble

Partition coefficient: n-octanol/water see section 12

Ignition temperature in °C not determined

Decomposition temperature not determined

Viscosity not determined

Explosive properties not relevant

Oxidising properties not relevant

### **9.2 Other information**

not applicable

## **SECTION 10: Stability and reactivity**

### **10.1 Reactivity**

No specific test data related to reactivity available for this product or its ingredients.

### **10.2 Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

### 10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

### 10.4 Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

### 10.5 Incompatible materials

No further relevant information available.

### 10.6 Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: Carbon dioxide (CO<sub>2</sub>), Carbon monoxide, smoke.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### **L-(+)-lactic acid**

LD50: oral (Rat): = 3.543 mg/kg

\* LC50: inhalative (Rat): > 7,94 mg/L (4 h); (OECD 403)

LD50: dermal (Rabbit): > 2.000 mg/kg

LD50: oral (Rat): = 3.543 mg/kg

\* LC50: inhalative (Rat): > 7,94 mg/L (4 h); (OECD 403)

LD50: dermal (Rabbit): > 2.000 mg/kg

#### **Zitronensäure Monohydrat**

LD50: oral (Rat): > 2.000 mg/kg

LD50: oral (Rat): > 2.000 mg/kg

#### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

#### Serious eye damage/eye irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

#### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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.

#### **Practical experience/human evidence**

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: Headache, Dizziness, fatigue, amyosthenia, Dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

## SECTION 12: Ecological information

### 12.1 Toxicity

Based on available data, the classification criteria are not met.

**Acute (short-term) fish toxicity**

- \* **L-(+)-lactic acid**  
LC50: (Lepomis macrochirus (Bluegill)): = 130 mg/L (96 h)

**Acute (short-term) toxicity to crustacea**

- \* **L-(+)-lactic acid**  
EC50 (Daphnia magna (Big water flea)): = 130 mg/L (48 h)  
Method: OECD 202

**12.2 Persistence and degradability**

No information available.

**12.3 Bioaccumulative potential**

Partition coefficient: n-octanol/water = -0,54

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6 Other adverse effects**

No information available.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

**Product/Packaging disposal**

Do not empty into drains; dispose of this material and its container in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**Waste codes/waste designations according to EWC/AVV**

200130 - detergents other than those mentioned in 20 01 29

**Other disposal recommendations**

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

## SECTION 14: Transport information

**14.1 UN number**

not applicable

**14.2 UN proper shipping name**

**Land transport (ADR/RID)**

No dangerous good in sense of these transport regulations.

**Sea transport (IMDG)**

No dangerous good in sense of these transport regulations.

**Air transport (ICAO-TI / IATA-DGR)**

No dangerous good in sense of these transport regulations.

**14.3 Transport hazard class(es)**

not applicable

**14.4 Packing group**

not applicable

**14.5 Environmental hazards**

Land transport (ADR/RID)	not applicable
Sea transport (IMDG)	not applicable

**14.6 Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage. Advices on safe handling: see parts 6 - 8

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

No transport as bulk according to IBC Code.

## 14.8 Additional information

### Land transport (ADR/RID)

not applicable

### Sea transport (IMDG)

not applicable

### Air transport (ICAO-TI / IATA-DGR)

not applicable

## SECTION 15: Regulatory information

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

#### EU legislation

##### Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

##### Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

VOC-value: 4,08 g/l

##### Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

##### Hazard categories / Named dangerous substances

This product is not classified according to Directive 2012/18/EU.

#### National regulations

### 15.2 Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

REACH No.	Substance name	CAS No.	EC No.
01-2119474164-39-xxxx	L-(+)-lactic acid	79-33-4	201-196-2
01-2119457026-42	Zitronensäure Monohydrat	5949-29-1	201-069-1

## SECTION 16: Other information

### Relevant R-, H- and EUH-phrases (Number and full text) Relevant R-and H-phrases (Number and full text):

H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

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

Eye Irrit. 2                      Calculation method.

#### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

OEL: Occupational Exposure Limit Value

BLV: Biological limit values

CAS: Chemical Abstracts Service

CLP: Classification, Labelling and Packaging

CMR: Carcinogenic, Mutagenic and Reprotoxic

DIN: German Institute for Standardization / German industrial standard

DNEL: Derived No-Effect Level

EAKV: European Waste Catalogue Directive

EC: Effective Concentration

EC: European Community

EN: European Standard

IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

ICAO-TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG Code: International Maritime Code for Dangerous Goods

ISO: International Organization for Standardization

**Safety Data Sheet**  
**according to Regulation (EC) No. 1907/2006 (REACH)**  
**according to Regulation (EU) 2015/830**

# AURO

6540000  
Version 1.2

Scale and rust remover  
Revision date 08-Jul-2021

Print date 08-Jul-2021

---

LC: Lethal Concentration

LD: Lethal Dose

MWC: Maximum workplace concentration

MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

OECD: Organisation for Economic Cooperation and Development

PBT: persistent, bioaccumulative, toxic

PNEC: Predicted No Effect Concentration

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

UN: United Nations

VOC: Volatile Organic Compounds

vPvB: very persistent and very bioaccumulative

**Indication of changes**

\* Data changed compared with the previous version