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# WÜRTH GULF SUBMITTAL

## Rost-Off PLUS

**Art. No. 0890200004**

**Content: 400 ml**



# Würth Gulf

Is part of The Würth Group. We are the supplier of Fasteners, Automotive Chemicals, Hand Tools & Electrical Supplies also Construction, Assembly Items, Sealants, Power Tools & Safety Solutions.

Established in 2000, Würth Gulf FZE is one of the leading suppliers in the Middle-East. Existing industrial companies and developing organizations alike can benefit from the unparalleled selection, quality and unbeatable service that is synonymous with the Würth brand.

## OUR VISION

Becoming the number 1 in the eyes of our customers as the best and most qualified sales team.

## OUR MISSION

We love selling.  
We inspire our customers.

## OUR PRINCIPLES

We request and promote achievements.  
The greater the success, the more freedom and liberty.  
We are optimistic, dynamic and have powers of self-assertion.  
We passionately fight for success.  
We consistently pursue everything that has proven to be successful, and we try out new things.  
We strive for perfection in every area of our activities.  
We assume responsibility for our actions, work in mutual respect and appreciation and are straightforward and predictable in everything we do.  
The term we consider most important in dealing with each other is "Thank You".

## WE SERVE THE FOLLOWING MARKET SECTOR:

- Auto Workshops
- Construction Companies
- Industrial Companies
- Metal and Fabrication
- Maintenance and Repair Shops
- Oil and Gas Sector
- And all other Manufacturing Sectors.

## OUR PRODUCT RANGE

- Automotive/Cargo Accessories and Spare Parts
- Chemical Technical Products
- Concrete Anchors and Fixings
- Construction Accessories
- Electrical
- Fasteners/Fittings
- Fire Protection Systems
- General Tools/Equipment
- Hand and Power Tools
- Lubricants and Degreasers
- Master® Power Tools
- Material Processing
- Orsy® Assortments and Workshop Equipment
- Personal Protective Equipment (PPE)
- Sanitary
- Sealants and Adhesives
- Service and Systems
- Workshop/Garage Equipment

### Over 3 million customers

Worldwide, there are over 400 Würth companies in more than 80 countries and more than 70,000 employees on its payroll. This guarantee our customers can rely on our high quality, excellent service and innovative products.

To each customer Würth allocates our Sales Consultant, who is strongly focused on the individual needs of the client. We have adopted this attitude to benefit you, the customer. Our daily commitment helps us to find new approaches so that we always improve. We aim to supply every customer with every article at any time in any place. We therefore have developed modular systems and logistics tailored to the individual needs of the customers. In October 2009, we won the German Logistics Award for this concept.

### Our philosophy

We owe it to Prof.Reinhold Würth that the Würth Group has a clear business orientation: It is marked by a strong brand policy, future-oriented product strategy, closeness to the customer, clear quality offensive, thinking in terms of visions and not least by a strong corporate culture. Bettina Würth, Prof.Reinhold Würth's daughter and Chairwoman of the Advisory Board together with the members of the Central Managing Board see to it that these values are filled with life and developed further.

# **COMPANY ECOLOGICAL GUIDELINES**



Adolf Würth GmbH & Co. KG has integrated environmental protection into its company philosophy as a main pillar and has been certified in the area of environmental management in accordance with DIN EN ISO 14001 since 1996. The company philosophy includes a clear commitment to environmental protection which is expressed in the preamble as follows.

Adolf Würth GmbH & Co. KG strictly adheres to the law in all the states of Germany and is obligated to comply with the principles of the social market economy and the health of people and the environment. We also strive to continually improve our company's environmental protection practices.

### Our commitment to environmental protection has yielded the following five company ecological guidelines:

- **Actively work to protect health and the environment in all areas** of our doing and to use this for standing out against competition.
- **Expansion of ecological Würth products and service strategies** with the goal of offering our customers the best health protection modern technology can offer.
- **Acceleration of the development of new ideas for the safety and health** of people and the environment.
- **Motivation of our employees to deal in an environmentally conscious way** at the workplace and privately through information and training.
- **When selecting our product ranges and suppliers**, we ensure that the manufacture, use and consumption of products cause as little harm to the environment as possible by using state-of-the-art technologies.

### Environmentally responsible product portfolio

The ecologically minded product and service strategies of Adolf Würth GmbH & Co. KG (AW KG) benefit customers and protect the environment from additional pollution.

For its service to environmental protection, AW KG was recognized at the 1998 "Environment Award for Companies" ceremony in the state of Baden-Württemberg.

In 2009, AW KG received the environmental technology prize from the state of Baden-Württemberg in the "material efficiency" category for the VKP Trio Sealing Tape.

### Ecological product lines and application solutions

- ECOLINE
- WÜRTH isi!! – Online hazardous material management
- REFILLO®MAT



### Goals of environmental management

Protection of the environment has long been a constituent part of Adolf Würth GmbH & Co. KG and includes the following tasks:

- Specification and implementation of a location-based environmental policy, environmental program and environmental goals.
- Systematic and objective regular assessment of the performance of these instruments.
- Provision of information on internal environmental protection for the company, the public and especially for our customers.

### Environmental challenges for the future

- Environmentally minded product range creation
- Minimization of environmental risks
- Waste avoidance
- Responsible handling of natural resources



### Bianca Gilsdorf

Environment management

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Reinhold-Würth-Straße 12-17  
74653 Künzelsau, Germany

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Fax: +49 7940 15-4512

bianca.gilsdorf@wuerth.com

# TECHNICAL SUPPLIER QUALIFICATION

## Würth seeks out the best suppliers in the world!

Würth's high demand for quality is placed at the very beginning of our supply chain with our global partners. In addition to process and product quality, the factors of delivery dependability, the environment and social aspects are "on the test rig". Trained auditors with highly comprehensive knowledge about the processes involved in creating new products and services test these products on site. Along with our quantitative and qualitative growth, supplier development activities are continuously being expanded and further developed according to the expectations of our customers.

To ensure an optimum audit process, we have at our disposal a host of customized tools for audits ranging from short half-day audits to supplier-development audits to comprehensive, multi-day audits. These tools are standardized methodically at the largest companies, which means that the results can be compared with and applied at other locations. We offer our knowledge at multi-day lectures and workshops at the Würth Academy.

The goals of supplier development are to ensure quality and environmental obligations, long-term cooperation with partners and reductions in nonconformity costs. What motivates us in supplier development are customers who enthusiastically use their product, purchased for the fairest price, and can rely on "their Würth".



### Andreas Dierolf

Quality assurance  
and supplier qualification

Adolf Würth GmbH & Co. KG  
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74653 Künzelsau, Germany

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andreas.dierolf@wuerth.com

# **WÜRTH GULF SUBMITTAL**

## **Rost-Off PLUS**

**Art. No. 0890200004**

**Content: 400 ml**

**TRADE LICENSE**



# رخصة تجارية عامة

## General Trading License

Government of Dubai



### License Details

License Number	2421	٢٤٢١
Licensee	Wurth Gulf FZE	وورث جلف م م ح
Trade Name	Wurth Gulf FZE	وورث جلف م م ح
Legal Status	FZE (Limited Liability)	م م ح (ذات مسؤولية محدودة)
Issue Date	01/01/2000	٢٠٠٠/٠١/٠١
Expiry Date	31/12/2024	٢٠٢٤/١٢/٣١
Business Unit	Jebel Ali Free Zone	المنطقة الحرة لجبل علي

### تفاصيل الرخصة

رقم الرخصة
صاحب الرخصة
الإسم التجاري
الشكل القانوني
تاريخ الإصدار
تاريخ الإنتهاء
قطاع العمل

### Company Manager

Name of Manager	JEAN LUC MARCEL THESMAR	جيان لوس مارسيل ثيسمار
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### مدير الشركة

إسم مدير الشركة

### Address

Premises No.	Plot No: S61303 P. O. Box: 17036 Jebel Ali south 17036 Dubai United Arab Emirates Zone: Jebel Ali Free Zone	ارض رقم: اس ٦١٣٠٣ ص. ب: ١٧٠٣٦ جبل علي ١٧٠٣٦ دبي الإمارات العربية المتحدة
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### العنوان

المقر رقم

Floor Number

رقم الطابق

Building Name

إسم المبنى

Area Name

إسم المنطقة

### Activities

- Building Metal Products Trading
- Occupational Hygiene & Safety Requisites Trading
- Lubricants & Grease Trading
- Basic Steel Products Trading
- Basic Non Ferrous Metal Products Trading
- Construction Chemicals Trading
- Workshop Hardware & Tools Trading
- Building & Construction Materials Trading
- Workshop Equipment, Machinery & Spare Parts Trading
- Fire Fighting & Safety Equipment Trading
- General Trading
- Building Hardware & Tools Trading

### النشاطات

- تجارة الأشغال المعدنية للأبنية
- تجارة لوازم السلامة والصحة والمهنية وأدواتها
- تجارة الشحوم وزيوت التزليق
- تجارة منتجات الحديد الأساسية
- تجارة المنتجات الأساسية للمعادن غير الحديدية
- تجارة المواد الكيماوية لأغراض البناء
- تجارة عدد وأدوات الورش
- تجارة مواد البناء
- تجارة معدات و مكائن الورش وقطع غيرها
- تجارة معدات وأجهزة السلامة وإطفاء الحريق
- تجارة عامة
- تجارة عدد و أدوات البناء

001-0002421-010100



CN:1057

(O)

- For Verification: Visit <https://edv.ezw.com> and enter the EDV No. -14817170 Issued On: 16-MAR-22

وثيقة إلكترونية معتمدة و صادرة بدون توقيع من سلطة المنطقة الحرة لجبل علي  
Approved electronic document issued without signature by JEBEL ALI FREE ZONE AUTHORITY



# شهادة تسجيل العضوية

## Membership Certificate

License no.	572033	رقم الرخصة	572033
Membership no.	99967	رقم العضوية	99967
Registration no.	1778252	رقم السجل التجاري	1778252
Business Name	WURTH GULF (L L C)	الاسم التجاري	وورث جلف (ش ذ م م)
Legal Status	Limited Liability Company - Sing	الشكل القانوني	شركة ذات مسؤولية محدودة - الشخص
Activity	General Trading Fire Resistant & Retardant Materials Trading	نوع النشاط	تجارة عامة تجارة المواد المقاومة والممانعة لإنتشار الحريق
Member Since	06/08/2005	تاريخ الإنتساب	06/08/2005
Date of Issue	06/08/2005	تاريخ الإصدار	06/08/2005
Expiry Date	05/08/2025	تاريخ الإنتهاء	05/08/2025

### Remarks

This certificate shall be invalid incase of any alteration without chamber's authorization

For online verification of this Certificate, please visit our website  
<http://www.dubaichamber.ae/verify>

غرفة تجارة وصناعة دبي

Dubai Chamber of Commerce & Industry

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### الملاحظات

تعتبر هذه الشهادة لاغية في حال أي كسب أو تعديل عليها دون اعتماد ذلك من الغرفة

للتأكد من صحة بيانات الشهادة يرجى الرجوع إلى موقع الغرفة  
<http://www.dubaichamber.ae/verify>

# **WÜRTH GULF SUBMITTAL**

## **Rost-Off PLUS**

**Art. No. 0890200004**

**Content: 400 ml**

**TECHNICAL DATA SHEET**



## Rust remover Rost-Off Plus

**High-quality rust remover, lubricating effect — owing to the latest additive technology (OMC<sub>2</sub> technology)**

### High capillary activity

Optimum creeping properties ensure outstanding rust penetration and extensive rust removal

**Contains liquid, highly effective, organic molybdenum compound OMC<sub>2</sub>**

- In contrast to products which contain solid lubricants, such as MOS<sub>2</sub>, OMC<sub>2</sub> does not precipitate out in larger containers
- Friction is reduced
- Excellent lubricating effect by smoothing the metal surface
- Ensures permanent smooth running of connections



### Corrosion protection additives for optimum protection

Provides lasting protection against further corrosion

### Resin and acid-free

### Silicone-free

### Compatible with rubber and plastic

Chemical basis	Mineral oil
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Contents	Container	Art. no.	P. Qty.
5 l	Canister	<b>0890 300</b>	1
20 l	Canister	<b>0890 300 1</b>	1
400 ml	Aerosol can	<b>0890 200 004</b>	1/12

## Details/Application

For loosening extremely rusty and oxidised threaded assemblies on cars, trucks, agricultural and construction machinery, aggregates, and devices.

can be painted over after the reaction time approx 2 h

Full painting for the surface after 48 h

#### OMC<sub>2</sub> technology:

From a microscopic standpoint, all metal surfaces are rough and subject to constant wearing and loss of substance when exposed to friction. OMC<sub>2</sub> additives smooth the metal surfaces via a thermoplastic flow deformation by metallorganic connections. The flow deformation is regulated individually, in accordance with the respective loading of the metal surface.

Improved surface quality thanks to metal surface sealant

Improved lubricating film

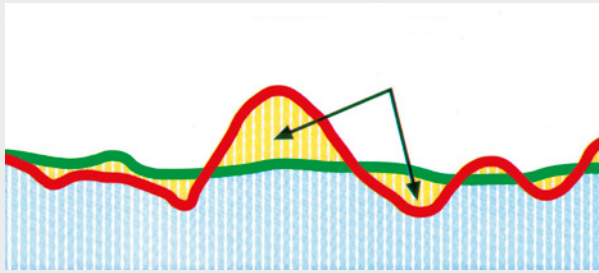
Reduced thermal loading

Decreased friction (up to 50 % in mixed friction area)

Reduced substance loss

Reduced wear

Longer service life



1. Smoothed surface

2. Original surface

3. Areas of plastic smoothing



## Instructions

Spray the parts to be treated and allow to work briefly. For stubborn connections, repeat the application process and extend the working time where necessary.

## Notice

- Immediately remove excess material or splashes on sensitive and painted surfaces.
- Resin- and acid-free
- Silicone-free

The usage instructions are recommendations based on the tests we have conducted and our experience; carry out your own tests before each application. Due to the large number of applications and storage and processing conditions, we do not assume any liability for a specific application result. Insofar as our free customer service provides technical information or acts as an advisory service, no responsibility is assumed by this service except where the advice or information given falls within the scope of our specified, contractually agreed service or the advisor was acting deliberately. We guarantee consistent quality of our products. We reserve the right to make technical changes and further develop products.

Related products		Art. no.
REFILLO <sup>®</sup> mat filling can		<b>0891 881 2</b>
Related products for	Designation	Art. no.
0890 300	Filling system REFILLO <sup>®</sup>	<b>0891 800 2</b>
	Tap DN 45 thread for 5 l and 10 l plastic canisters	<b>0891 302 01</b>
	Empty container with spray gun Rost Off Plus	<b>0891 502 005</b>
	Compressed-air filling station Refillo <sup>®</sup> combi	<b>0891 800 001</b>
0890 300 1	Filling system REFILLO <sup>®</sup>	<b>0891 800 2</b>
	Empty container with spray gun Rost Off Plus	<b>0891 502 005</b>
	Canister coating ORSY <sup>®</sup> protec	<b>0891 870 77</b>

# WÜRTH GULF SUBMITTAL

## Rost-Off PLUS

**Art. No. 0890200004**

**Content: 400 ml**

**MSDS**



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**SAFETY DATA SHEET***according to Regulation (EC) No. 1907/2006***0893 114112 - Würth Zinc Spray Bright**

Version 1.0

Revision Date 07.02.2014

Print Date 12.02.2014

AE / EN

Date of last issue: -

Date of first issue: -

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**1. Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Commercial Product Name : Würth Zinc Spray Hell

Product code : 0893 114112

MSDS-Identcode : 10043320

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

Use of the Substance/Mixture : Solvent-borne coatings

**1.3 Details of the supplier of the safety data sheet**Company : Würth Gulf Fze  
POBox 17036  
Dubai  
Utd.Arab Emir.  
E-mail address: wurthglf@emirates.net.ae

Telephone : +9714 8834229

Telefax : +9714 8834303

Responsible/issuing person : E-mail address: prodsafe@wuerth.com

**1.4 Emergency telephone number**Emergency telephone Advisory office in case of poisoning  
+9714 8834229Telephone number of the company in case of emergencies  
+97150 5646023

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**2. Hazards identification****2.1 Classification of the substance or mixture****Classification (67/548/EEC, 1999/45/EC)**

Extremely flammable

R12: Extremely flammable.

Irritant

R36: Irritating to eyes.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

**2.2 Label elements**Labelling according to EC Directives: 1999/45/EC

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## SAFETY DATA SHEET

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Hazard symbols



Extremely  
flammable

Irritant

R-phrase(s)

: R12 Extremely flammable.  
R36 Irritating to eyes.  
R66 Repeated exposure may cause skin dryness or cracking.  
R67 Vapours may cause drowsiness and dizziness.

S-phrase(s)

: S 9 Keep container in a well-ventilated place.  
S23 Do not breathe spray.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S33 Take precautionary measures against static discharges.  
S36 Wear suitable protective clothing.  
S51 Use only in well-ventilated areas.  
S60 This material and its container must be disposed of as hazardous waste.

Special labelling of certain mixtures

: Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.  
Do not pierce or burn, even after use.  
Do not spray on a naked flame or any incandescent material.  
Keep away from sources of ignition - No smoking.  
Keep out of the reach of children.

#### 2.3 Other hazards

no data available

## 3. Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous components

Chemical Name	CAS-No.	Classification (67/548/EEC)	Classification (1272/2008/EC)	Concentration [%]
	EC-No.			
	Registration number			
acetone	67-64-1	F; R11	Flam. Liq. 2; H225	>= 25 - < 35

## SAFETY DATA SHEET

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	200-662-2	Xi; R36 R66 R67	Eye Irrit. 2; H319 STOT SE 3; H336	
n-butyl acetate	123-86-4	R10	Flam. Liq. 3; H226 STOT SE 3; H336	>= 25 - < 35
	204-658-1	R66 R67		
propane	74-98-6	F+; R12	Flam. Gas 1; H220	>= 20 - < 25
	200-827-9			
butane	106-97-8	F+; R12	Flam. Gas 1; H220 Press. Gas Liquefied gas; H280	>= 15 - < 20
	203-448-7			

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. First aid measures

### 4.1 Description of first aid measures

- General advice : If you feel unwell, seek medical advice (show the label where possible). First aider needs to protect himself. Move out of dangerous area. Never give anything by mouth to an unconscious person. Take off contaminated clothing and shoes immediately.
- If inhaled : If breathed in, move person into fresh air. In the case of inhalation of aerosol/mist consult a physician if necessary. Keep patient warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If unconscious place in recovery position and seek medical advice.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water. Do NOT use solvents or thinners. If skin irritation persists, call a physician.
- In case of eye contact : Protect unharmed eye. If easy to do, remove contact lens, if worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- If swallowed : If swallowed, seek medical advice immediately and show this container or label. If swallowed, DO NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position.

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

no data available

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## SAFETY DATA SHEET

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

no data available

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### 5. Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media : Foam, Dry powder, Carbon dioxide (CO<sub>2</sub>), Water

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

Specific hazards during firefighting : Hazardous decomposition products may be formed under fire conditions (see section 10). Exposure to decomposition products may be a hazard to health.

#### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Further information : Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

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### 6. Accidental release measures

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

Refer to protective measures listed in sections 7 and 8. Use personal protective equipment. Remove all sources of ignition. Avoid contact with skin and eyes. Ensure adequate ventilation, especially in confined areas. Immediately evacuate personnel to safe areas. Avoid inhalation of vapour or mist. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

#### 6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

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

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Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations. Do not flush with water. Clean contaminated surface thoroughly.

#### 6.4 Reference to other sections

see chapter: 7, 8, 11, 12 and 13

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## 7. Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8. Limit the stocks at work place. Handle and open container with care. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin and eyes. Do not spray on a naked flame or any incandescent material. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Take precautionary measures against static discharges.

Advice on protection against fire and explosion : Normal measures for preventive fire protection. Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Keep away from heat and sources of ignition. Do not smoke. No sparking tools should be used. Electrical equipment should be protected to the appropriate standard.

Dust explosion class : not applicable

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

Requirements for storage areas and containers : Store in original container. BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in an area equipped with solvent resistant flooring. Please observe the storage instructions for aerosols!

Advice on common storage : Keep away from food, drink and animal feedingstuffs. Do not store together with oxidizing and self-igniting products.

Other data : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

no data available

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**8. Exposure controls/personal protection****8.1 Control parameters**

Components	CAS-No.	Control parameters	Basis	Update
acetone	67-64-1	TWA: 1.210 mg/m <sup>3</sup> , 500 ppm	2000/39/EC	2000-06-16

Other information on limit values: see chapter 16

**8.2 Exposure controls****Engineering measures**

Provide sufficient air exchange and/or exhaust in work rooms.

**Personal protective equipment**

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  
Product contains low-boiling liquids. Respiratory protective equipment must be air supplied respirators.

Hand protection

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

Eye protection

: Tightly fitting safety goggles

Skin and body protection: Flame retardant antistatic protective clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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#### Hygiene measures

: Handle in accordance with good industrial hygiene and safety practice.  
General industrial hygiene practice.  
Do not inhale aerosol.  
Avoid contact with skin, eyes and clothing.  
When using do not eat, drink or smoke.  
Wash hands before breaks and at the end of workday.  
Follow the skin protection plan.  
Wash contaminated clothing before re-use.

#### Environmental exposure controls

General advice

: Do not flush into surface water or sanitary sewer system.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

---

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : aerosol  
Propellant : butane, propane  
Colour : in accordance with the product description  
Odour : solvent-like  
Odour Threshold : no data available  
Flash point : no data available  
Ignition temperature : 540 °C  
Thermal decomposition : no data available  
Lower explosion limit : 2,4 %(V)  
Upper explosion limit : 12,9 %(V)  
Explosive properties : Not explosive  
In use, may form flammable/explosive vapour-air mixture.  
Flammability : no data available  
Oxidizing properties : no data available  
Auto-ignition temperature : no data available  
Burning number : no data available  
Molecular weight : no data available  
pH : not applicable  
Solidification / Setting point : not applicable

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**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

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Version 1.0

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Boiling point/boiling range : not applicable  
Vapour pressure : 5.200 hPa at 20 °C  
  
Density : 0,72 - 0,76 g/cm<sup>3</sup> at 20 °C

Bulk density : no data available  
Water solubility : partly miscible

Partition coefficient: n-  
octanol/water : no data available  
Solubility in other solvents : no data available  
Viscosity, dynamic : no data available  
Viscosity, kinematic : no data available  
Flow time : no data available  
Impact sensitivity : no data available  
Relative vapour density : no data available  
Surface tension : no data available  
Evaporation rate : no data available  
Minimum ignition energy : no data available  
Acid number : no data available  
Refraction index : no data available  
Miscibility in water : no data available  
Solvent separation test : no data available

**9.2 Other information**

None known.

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**10. Stability and reactivity****10.1 Reactivity**

no data available

**10.2 Chemical stability**

The product is chemically stable.

**10.3 Possibility of hazardous reactions**

Stability : No decomposition if stored and applied as directed.  
Vapours may form explosive mixtures with air. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

**10.4 Conditions to avoid**

Heat, flames and sparks.

**10.5 Incompatible materials**

---

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Materials to avoid : no data available

**10.6 Hazardous decomposition products**

Hazardous decomposition products : Carbon oxides

---

**11. Toxicological information****11.1 Information on toxicological effects****Acute toxicity**Acute oral toxicity:

acetone : LD50 Rat, female: 5.800 mg/kg

n-butyl acetate : LD50 Rat: > 10.760 mg/kg

Acute inhalation toxicity:

acetone : LC50 Rat, female: 76 mg/l  
Test atmosphere: vapour  
Exposure time: 4 h

n-butyl acetate : LD50 Rabbit: 14.112 mg/l  
Exposure time: 24 h

butane : LC50 Rat: 658 mg/l  
Exposure time: 4 h

Acute dermal toxicity:

acetone : LD50 Rabbit, male and female: > 7.426 mg/kg

Acute toxicity (other routes of administration):

no data available

**Skin corrosion/irritation**

Skin irritation : Prolonged skin contact may defat the skin and produce dermatitis.

**Serious eye damage/eye irritation**

acetone : Species: Rabbit  
Irritation to eyes, reversing after 7 to 21 days.

**Respiratory or skin sensitisation**

---

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Sensitisation:

acetone : Test Method: Maximisation Test (GPMT)  
Species: Guinea pig  
Result: Does not cause skin sensitisation.

**Germ cell mutagenicity**Genotoxicity in vitro:

acetone : Type: Mutagenicity (Salmonella typhimurium - reverse mutation assay)  
Test species: Salmonella typhimurium  
with and without metabolic activation  
Result: negative

Genotoxicity in vivo:

acetone : Type: In vivo micronucleus test  
Test species: Mouse  
Sex: male and female  
Application Route: Oral  
Result: negative

**Carcinogenicity**

## Remarks

acetone : Carcinogenicity:  
Animal testing did not show any carcinogenic effects.  
  
Mutagenicity:  
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

**Reproductive toxicity**

acetone : Note: No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments.

**Teratogenicity**

no data available

**STOT - single exposure**

acetone : May cause drowsiness or dizziness.

n-butyl acetate : May cause drowsiness or dizziness.

**STOT - repeated exposure**

no data available

---

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**Aspiration hazard**Aspiration toxicity

no data available

**Neurological effects**

no data available

**Toxicology Assessment**Toxicology, Metabolism, Distribution

no data available

Acute effects

no data available

**Further information**

: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.  
Vapours may cause drowsiness and dizziness.

---

**12. Ecological information****12.1 Toxicity**Toxicity to fish

acetone : LC50 (Pimephales promelas (fathead minnow)): 6.210 - 8.120 mg/l  
Exposure time: 96 h

n-butyl acetate : LC50 (Pimephales promelas (fathead minnow)): 18 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates

acetone : EC50 (Daphnia pulex (Water flea)): 8.800 mg/l  
Exposure time: 48 h

n-butyl acetate : EC50 (Daphnia): 44 mg/l  
Exposure time: 48 h

Toxicity to algae

acetone : NOEC (Microcystis aeruginosa): 530 mg/l  
Exposure time: 8 d

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n-butyl acetate : ErC50 (Desmodesmus subspicatus (green algae)): 648 mg/l  
Exposure time: 72 h

Toxicity to bacteria

acetone : EC50 : 61,15 mg/l  
Exposure time: 30 min  
Test Method: Respiration inhibition of activated sludge  
Method: ISO 8192

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

acetone : NOEC: 1.106 - 2.212 mg/l  
Exposure time: 28 d  
Species: Daphnia magna (Water flea)

**12.2 Persistence and degradability**

Biodegradability

acetone : Result: Readily biodegradable.  
Biodegradation: 90,9 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

no data available

**12.6 Other adverse effects**

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.  
We have no quantitative data concerning the ecological effects of this product.

---

**13. Disposal considerations****13.1 Waste treatment methods**

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Advice on disposal and packaging : Disposal:  
In accordance with local and national regulations. This material and its container must be disposed of as hazardous waste.  
Waste codes should be assigned by the user based on the application for which the product was used.

The following Waste Codes are only suggestions:

Waste Code (EWC) : Waste Key (unused product):  
150110, packaging containing residues of or contaminated by dangerous substances

Waste key (used product):  
150110, packaging containing residues of or contaminated by dangerous substances

Disposal of uncleaned packaging : Waste key (uncleaned packaging):  
150110, packaging containing residues of or contaminated by dangerous substances

Note: Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not burn, or use a cutting torch on, the empty drum. Please ensure aerosol cans are sprayed completely empty (including propellant) Containers that have not been emptied in compliance with regulations are regarded as hazardous waste. Dispose of as unused product.

---

**14. Transport information****14.1 UN number**

ADR : 1950  
RID : 1950  
IMDG : 1950  
IATA : 1950

**14.2 Proper shipping name**

ADR : AEROSOLS  
RID : AEROSOLS  
IMDG : AEROSOLS  
IATA : AEROSOLS, FLAMMABLE

**14.3 Transport hazard class(es)**

ADR : 2  
RID : 2  
IMDG : 2.1  
IATA : 2.1

**14.4 Packing group**

ADR

---

## SAFETY DATA SHEET

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Date of last issue: -

Date of first issue: -

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Classification Code : 5F  
Labels : 2.1  
Limited quantity : 1,00 L  
Tunnel restriction code : (D)

#### RID

Classification Code : 5F  
Hazard Identification Number : 23  
Labels : 2.1  
Limited quantity : 1,00 L

#### IMDG

Labels : 2.1  
EmS Number : F-D, S-U

#### IATA

Packing instruction (cargo aircraft) : 203  
Packing instruction (passenger aircraft) : 203  
Packing instruction (LQ) : Y203  
Labels : 2.1

#### 14.5 Environmental hazards

##### ADR

Environmentally hazardous : no

##### RID

Environmentally hazardous : no

##### IMDG

Marine pollutant : no

##### IATA

Environmentally hazardous : no

#### 14.6 Special precautions for user

see chapter: 6, 7 and 8

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

---

## 15. Regulatory information

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

Directive (96/82/EC)	: Update: 2003	Quantity 1	Quantity 2
	Extremely flammable	10 t	50 t

National legislation

---

## SAFETY DATA SHEET

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Other regulations : Take note of Dir 94/33/EC on the protection of young people at work.

Further information : Reserved for industrial and professional use.

#### 15.2 Chemical Safety Assessment

no data available

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#### 16. Other information

##### Full text of R-phrases referred to under sections 2 and 3

R10	Flammable.
R11	Highly flammable.
R12	Extremely flammable.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

##### Full text of H-Statements referred to under sections 2 and 3.

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

##### Other information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

---

Prepared by : SAP Business Compliance Services GmbH  
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Ref.: WIAG00004673

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# **WÜRTH GULF SUBMITTAL**

## **Rost-Off PLUS**

**Art. No. 0890200004**

**Content: 400 ml**

**ISO 14001:2004**

**ISO 9001:2008**





Management Service

# CERTIFICATE

Certificate Registration No.: 12 100 23791 TMS / Order No.: 70020920

The Certification Body  
of TÜV SÜD Management Service GmbH

certifies that the organization



**Adolf Würth GmbH & Co. KG**

Reinhold-Würth-Str. 12-17 • 74653 Künzelsau  
Germany

for the scope

Development and distribution of fasteners, hand tools and storage systems. Distribution of products (standard parts, special parts, systems) for industrial safety, construction, workshops, fire protection technology, chemical-technical applications, anchor technology, direct assembly, electrical installations, material processing, installation, measuring technology, soldering and welding technology, as well as of products such as electrical and pneumatic tools and machines, small and replacement parts for automotive vehicles, advertising media. Maintenance of electric power tools, pin driver technology and pneumatic tools as well as testing of fall arrest systems, length measuring tools (laser technology) and tools for torque measurement and vehicle conversion or installation of storage systems including load securing in vehicles as well including the sites see enclosure

has established and applies a Quality Management System.

An audit was performed and has furnished proof  
that the requirements according to

**DIN EN ISO 9001:2015**

are fulfilled.

The certificate is valid from **2024-04-10** until **2027-04-09**.

Fred Wenke  
Head of Certification Body  
Munich, 2024-03-13

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CERTIFICATE

ZERTIFIKAT



Management Service

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認證證書



CERTIFICATE



ZERTIFIKAT

# ENCLOSURE OF CERTIFICATE

Certificate Registration No.: 12 100 23791 TMS / Order No.: 70020920

certificate holder:

**Adolf Würth GmbH & Co. KG**  
Reinhold-Würth-Str. 12-17  
74653 Künzelsau  
Germany

at the sites	scope
<p><b>Adolf Würth GmbH &amp; Co. KG</b> Reinhold-Würth-Str. 12-17 74653 Künzelsau Germany</p>	<p>Development and distribution of fasteners, hand tools and storage systems. Distribution of products (standard parts, special parts, systems) for industrial safety, construction, workshops, fire protection technology, chemical-technical applications, anchor technology, direct assembly, electrical installations, material processing, installation, measuring technology, soldering and welding technology, as well as of products such as electrical and pneumatic tools and machines, small and replacement parts for automotive vehicles, advertising media. Maintenance of electric power tools, pin driver technology and pneumatic tools as well as testing of fall arrest systems, length measuring tools (laser technology) and tools for torque measurement.</p>
<p><b>Adolf Würth GmbH &amp; Co. KG</b> <b>Fahrzeugeinrichtungen</b> Am Seebach 2 74182 Obersulm-Willsbach Germany</p>	<p>Vehicle conversion or installation of storage systems including load securing in vehicles.</p>

Fred Wenke  
Head of Certification Body  
Munich, 2024-03-13

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Management Service

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The Certification Body  
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**Adolf Würth GmbH & Co. KG**

Reinhold-Würth-Str. 12-17 • 74653 Künzelsau  
Germany

for the scope

**Development and distribution of fasteners, hand tools and storage systems. Distribution of products (standard parts, special parts, systems) for industrial safety, construction, workshops, fire protection technology, chemical-technical applications, anchor technology, direct assembly, electrical installations, material processing, installation, measuring technology, soldering and welding technology, as well as of products such as electrical and pneumatic tools and machines, small and replacement parts for automotive vehicles, advertising media. Maintenance of electric power tools, pin driver technology and pneumatic tools as well as testing of fall arrest systems, length measuring tools (laser technology) and tools for torque measurement**

has established and applies an Environmental Management System.

An audit was performed and has furnished proof  
that the requirements according to

**DIN EN ISO 14001:2015**

are fulfilled.

The certificate is valid from **2024-05-24** until **2027-05-23**.

Fred Wenke  
Head of Certification Body  
Munich, 2024-03-13



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認證證書

CERTIFICATE

ZERTIFIKAT



Management Service

# CERTIFICATE

The Certification Body  
of TÜV SÜD Management Service GmbH

certifies that



**Adolf Würth GmbH & Co. KG**

Reinhold-Würth-Str. 12-17 • 74653 Künzelsau  
Germany

has established and applies  
an Energy Management System for

**Development and distribution of fasteners,  
hand tools and storage systems. Distribution of products  
(standard parts, special parts, systems) for industrial safety, construction,  
workshops, fire protection technology, chemical-technical applications,  
anchor technology, direct assembly, electrical installations, material processing,  
installation, measuring technology, soldering and welding technology,  
as well as of products such as electrical and pneumatic tools and machines,  
small and replacement parts for automotive vehicles, advertising media.  
Installation of storage systems including load securing in automotive  
vehicles. Maintenance of electric power tools, pin driver technology and  
pneumatic tools as well as testing of fall arrest systems, length measuring  
tools (laser technology) and tools for torque measurement.**

An audit was performed, Order No. **70020920**.

Proof has been furnished that the requirements  
according to

**ISO 50001:2018**

are fulfilled.

The certificate is valid in conjunction  
with the main certificate from **2022-10-04** until **2025-10-03**.

Certificate Registration No.: **12 340 23791/01 TMS**.

Head of Certification Body  
Munich, 2022-10-05



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# **WÜRTH** **IS QUALITY**

Everywhere and every time



# PREFACE

Ladies and Gentlemen, dear customers,

In practice, the quality of a product or service is measured by the degree to which customers' expectations are fulfilled.

Prof. Dr. h. c. mult. Reinhold Würth, Chairman of the Supervisory Board of the Würth Group's Family Trusts, goes one step further by setting this goal: "We have to inspire our customers in every way."

All our employees are well aware how important it is to reliably fulfill customers' wishes – your wishes and your orders – day in and day out.

This is why Würth's vision for quality is:



By providing quality products and services, we want to "take the load off your back", and we also want to give you the opportunity to increase your productivity and efficiency through innovative solutions.

This enables you to focus on your customers' needs, thereby increasing your success.

To assure you that the quality is there, we make no compromises, especially when it comes to selecting suppliers and when testing and approving Würth products. Würth strives for optimum quality in every market segment. Before we include products in our sales line, it is subjected to fatigue tests at our testing laboratory for days and sometimes even weeks under real-life conditions. In fact, most testing is carried out under tougher conditions that are seen in practice.

Würth operates a worldwide network of testing laboratories with first-rate equipment and a well-trained, motivated team of quality managers who act locally and globally to guarantee our quality standards.

Würth also works together with external testing laboratories where practicable to enable a third party to confirm the fulfillment of your specifications, national and international standards and Würth's own specifications.

Another focal point of our efforts in the area of quality management is the selection of the most suitable suppliers and their obligation to manufacture products in accordance with our quality standards.

The most environmentally friendly manufacturing of products and the use of appropriate materials are naturally of critical importance to us.

Of course we are also aware that the quality of the business processes of our company are crucial in determining your satisfaction. Our quality management systems are process oriented and the requirements are defined globally for Würth.

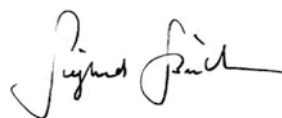
The central organ of the Würth Group in matters of quality is the Würth Quality Team (WQT). This team's job is to promote quality consciousness and quality, to point out improvement opportunities and necessities and to continuously support improvement processes. This work is supplemented within the Würth line at the so-called Quality Competence Center and, naturally, by a large number of teams at the individual companies.

In this brochure, we want to provide you with an overview of the instruments and people with whom we are working in the areas of

- Quality and environmental management (pages 3 – 5)
- Supplier qualification (page 6)
- Quality assurance (page 7)
- Testing laboratories in the Würth network (pages 8 – 19)

in order to fully live up to the "Würth is quality – Everywhere and every time" reputation.

Sincerely,



Dr.-Ing. Siegfried Beichter  
Head Quality Management Würth Group

# QUALITY MANAGEMENT WITH A SYSTEM

At the parent company of the Würth Group, Adolf Würth GmbH & Co. KG in Künzelsau, we have held an awareness for the demands, questions and problems of our customers as a focal point of our quality philosophy for a long time.

This is why, in 1993, we decided to have our quality-management system certified in accordance with DIN EN ISO 9001 by an external institution, the TÜV Süd certification agency. Using DIN EN ISO 14001, we are forming a process-oriented integrated management system which paves the way for continual improvement of our services.

Important elements of this system include determining customer satisfaction, evaluating effectiveness by the company management, continual improvement of the processes using internal audits, ensuring

product quality through systematic and consistent testing, fair evaluation of suppliers, efficient complaint processing for monitoring of our products on the market and our own initiative for continual improvement of work routines to increase customer satisfaction.

The performance of this entire system is tested through monitoring audits carried out annually by TÜV Süd and re-certification audits by independent experts carried out every 3 years. At the last re-certification audit in November of 2010, we verified the conformity of our system with DIN EN ISO 9001:2008. This certification attests to our exceptional customer orientation and very keen quality consciousness.

Our distinct customer orientation was rewarded eventually with the German Customer Champion Award 2010.



**Dr.-Ing. Siegfried Beichter**  
Quality Management Würth Group

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Phone: +49 7940 15-2680

Fax: +49 7940 15-52680

siegfried.beichter@wuerth.com

# PERFORMANCE OF QUALITY ASSURANCE

## Quality beats price – quality assurance at Würth

To assure the customer that the quality is 100% there, we make no compromises when it comes to selecting suppliers and when testing and approving Würth products. Würth demands the best possible product quality in each respective market in order to meet all our customers' demands. They are the ones who decide whether or not a product is good.

Engineers, technicians and masters of their craft work on the following tasks for quality assurance:

- Initial sample testing
- Incoming goods inspection
- Complaint processing
- New product testing



Incoming products are subjected to an incoming goods inspection in accordance with the random sample plan. This is oriented toward DIN ISO 3269 and forms the basis for the scope of the random sample based on the delivery quantity.

The inspections are checked as per specifications of the standard and internal inspection instructions from independent professionals. All inspection equipment used is regularly calibrated.

New products are subjected to special requirement profiles by the quality assurance personnel. If the inspection yields positive results, approval is granted by quality assurance.

An important component of our success is the internal development of innovative products. Here, quality assurance works very closely with the product management and development departments and accompanies development projects through practice-oriented tests and determination of product requirements from the get-go.

The customer is an important part of our continual product-improvement process. All customer complaints are evaluated on a weekly basis. The quality assurance team responds immediately to increases in key figures so that solutions to possible problems can be developed early on. Typical measures include inventory checks, supplier development, product optimization, 8D reports and the avoidance of usage errors through improved product information while taking the information gleaned from customers into account.



# THE LARGEST TESTING LABORATORIES OF THE WÜRTH LINE



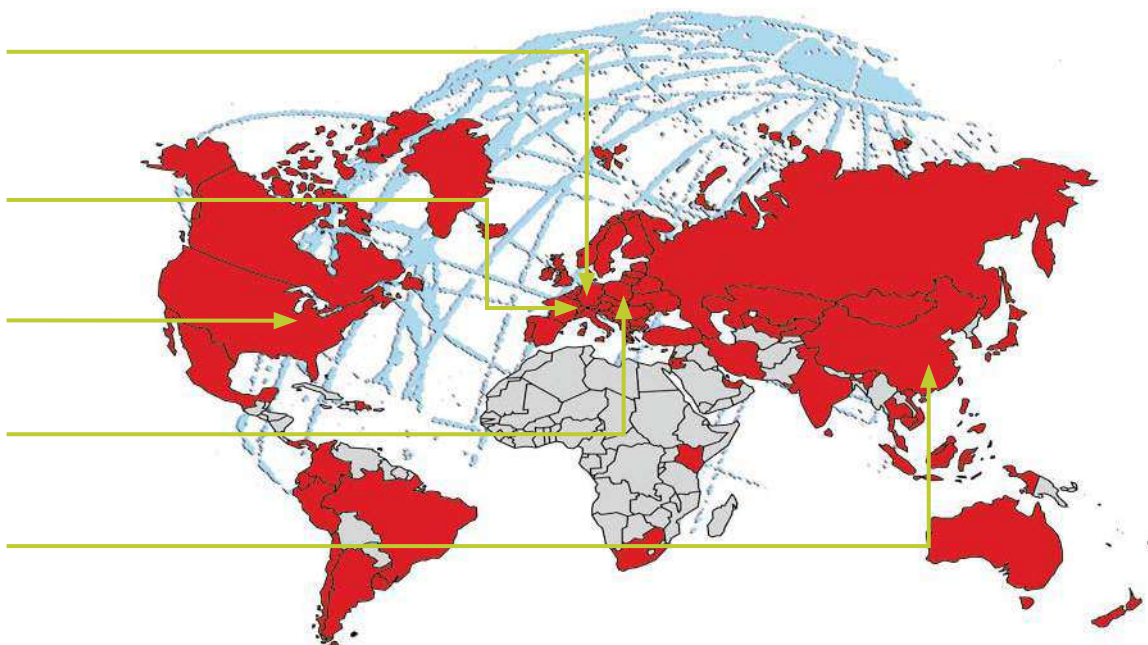
**Germany**  
Künzelsau-Gaisbach,  
Bad Mergentheim

**Switzerland**  
Chur

**US**  
Indianapolis

**Slovakia**  
Bratislava

**China**  
Shanghai



■ = Würth companies worldwide

# ACCREDITED WÜRTH TESTING LABORATORY

The growing demands of the global market and our customers have led Adolf Würth GmbH & Co. KG to make the decision to establish an independent material-technical testing laboratory in accordance with the requirements of DIN EN ISO/IEC 17025.

Thanks to the professional competence in materials and anchor technology and the confidential handling of information and protection rights, the laboratory serves as a superordinate testing location within the Würth Group.

Altogether, six employees with over 70 years of combined professional experience and various professional backgrounds, e.g. master mechanics and metal industry tradesmen, structural engineers and chemical engineers, attend to your concerns. This ensures not only high testing quality, but also a professional interpretation of the measurement values.

We offer our customers fast and competent processing of their orders. Since the Würth testing laboratory is located at the Künzelsau location, and is therefore close to the central warehouse of Adolf Würth GmbH & Co. KG, quick access to Würth products is possible. This enables us to respond quickly to possible special needs of your order.

Our accreditation certification with appendix can be found on our homepage or directly on the website of the DAkkS under laboratory number D-PL-11087-01-00.

For inquiries or more information on the Würth testing laboratory, we stand ready to assist you.

Jan Kobald  
Würth testing laboratory



Deutsche Akkreditierungsstelle GmbH  
German Accreditation Body

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV  
Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

## Accreditation



The Deutsche Akkreditierungsstelle GmbH (German Accreditation Body) attests that the testing laboratory

**Adolf Würth GmbH + Co. KG**  
**Reinhold-Würth-Straße 12-17, 74653 Künzelsau**

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the following fields:

**mechanical and technological tests at fasteners**

The accreditation certificate shall only apply in connection with the notice of accreditation of 17.03.2011 with the accreditation number D-PL-11087-01 and is valid until 16.03.2016. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 6 pages.

Registration number of the certificate: D-PL-11087-01-00

Berlin, 17.03.2011

Dr. Heike Manke  
Head of Division

This document is a translation. The definitive version is the original German accreditation certificate.  
See notes overleaf.



**Hermann Müller**  
Würth testing laboratory

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**Jan Kobald**  
Würth testing laboratory

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# ADOLF WÜRTH GMBH & CO. KG TEST LABORATORY TESTING OPTIONS (EXCERPT)



## Tension testing machine

- Tensile test/compression test of components
- Strength testing of bolts and nuts



## Screw-in test (right)

Internal development:  
Measurement of the screw-in times of non-self-drilling and self-drilling screws



## Vickers hardness tester (right)

Hardness test in accordance with DIN EN ISO 6507

- Determination of edge and core hardness
- Hardness progression curves

## Measuring microscope (left)

Contact-less measurement of geometries



**Robot test rig**

- a) Grinding
- b) Cutting
- c) Hammer drilling

**a) Grinding test**

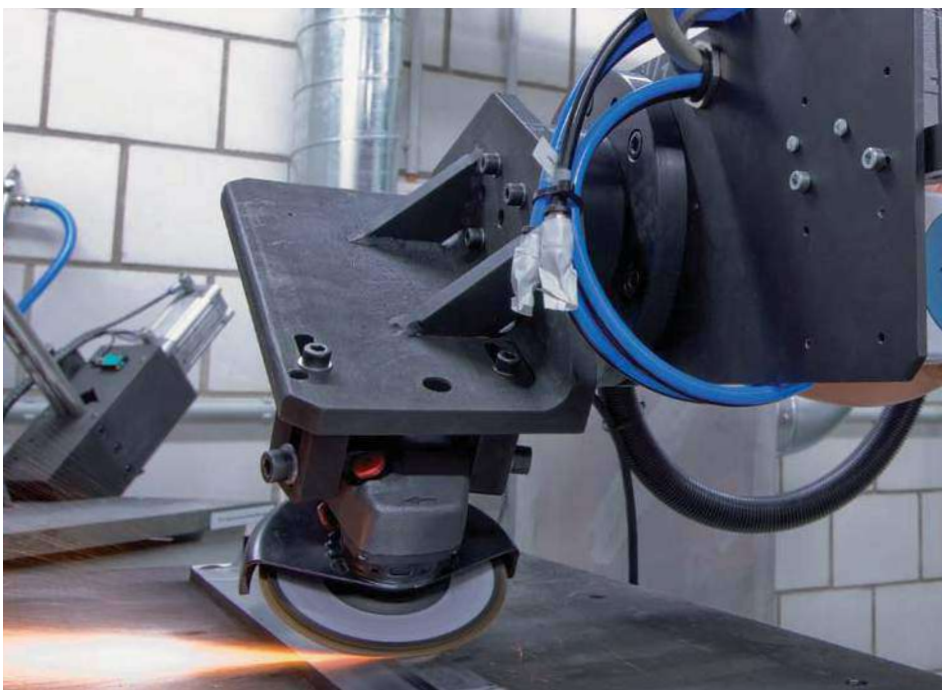
- Grinding, flap and fiber disks
- Endurance test
- Material removal/ loss of material on disk
- Time/performance recording

**b) Cutting disk test**

- Cutting disks from 115 - 230 mm
- Number of separating cuts/ loss of material on disk

**c) Hammer drilling test**

- SDS plus, SDS max
- Endurance test
- Drilling time, number of drill holes





**Infrared spectroscope**

Measuring of product specific spectra  
(finger print)



**Spark emission spectrometer (left)**

Determination of steel composition



**Weather simulation cabinet (right)**

Accelerated outdoor weather simulation  
in accordance with DIN EN ISO 4892-2



**Salt-spray chamber**

- Salt-spray test in accordance with DIN EN ISO 9227
- Condensate test in accordance with DIN EN ISO 6270-2
- A wide variety of environmental simulations



**Dispensing unit** (internal development)

System testing of products in cartridges or bags

- Thickenings
- Air inclusions
- Color mixing
- User viscosity



**Lamp test rig** (left)

- Testing of light lamps and automotive bulbs
- Geometry
- Service-life test
- Luminous flux measurement (lumens)
- Vibration test
- Measurement of the light spectrum and the color-reproduction value

**Spectral photometer**(right)

Measurement of the color of products such as silicones and paints in the CIELAB color space



**X-ray fluorescence spectroscope**

- Measurement of the thickness of surface coatings
- Determination of heavy metals in plastics/metals
- RoHS screening process



### Rheometer

Determination of viscosity, flow characteristics of liquids and pasty products



### Machine test rig

- Magnetic powder eddy current brake for high torques and high speeds
- Service life testing of machine batteries
- Testing of machine characteristics

### Not shown

#### Occupational safety

- Martindale abrasion test for gloves
- Cut protection test
- Penetration test

#### Fall testing

- Cardboard
- Shipping boxes
- Hand tools

#### Cardboard testing

- Box Cardboard Tester (BCT)
- Edge Crush Test (ECT)

#### Battery testing

- Types: micro (AAA), mignon (AA), baby, mono, 9-Volt block, button cells
- Discharge time and discharge cycles for various load cases, e.g. flash, camera
- Service-life test for rechargeable batteries

#### Precision measuring system

- 2D shadow measuring system
- Automatic measurement of screw dimensions

#### Plier testing

Cut test for sheet-metal shears and VDE pliers

#### Service life test for flashlights

... and lots more

# SAMPLE OF SERVICES FROM ADOLF WÜRTH GMBH & CO. KG AT A GLANCE

Dear Customer,

We would be happy to perform testing at your behest. This list is intended to provide you with a small overview of the testing possibilities offered at our testing laboratory. Should you be interested in our offer, we would be happy to advise you. Please contact your sales rep or the contact partner of the accredited Würth testing laboratory.

## Tensile test

- Tensile testing on whole and machined test pieces DIN EN ISO 898-1\*
- Force test for nuts DIN EN 20898-2\*
- Measurement of breaking strength and tear elongation of adhesive tapes DIN EN 14410
- Determination of the tensile shearing strength of high-strength overlapping adhesions DIN EN 1465
- Determination of adhesive strength of adhesive tapes DIN EN 1939
- Determination of tear strength, tensile strength, tear elongation and tension values of rubber/elastomere DIN 53504

## Hardness testing

- Surface and core hardness, hardness profiles
- HRC/HRB Brinell
- HV 0.3/1/5/10 DIN EN ISO 6507\*
- Decarbonization and carbonization test DIN EN 898-1\*
- Edge decarbonization DIN EN 898-5\*

## Torque

Determination of torques up to 5,000 Nm

## Coating thickness test

Measurement of metallic coverings using x-ray fluorescence process\*

## RoHS screening

Non-destructive testing using x-ray fluorescence process

## Dimension testing

- Thread testing, length measurement, geometry\*
- Measuring microscope\*
- 2D shadow measuring unit

## Material analysis

- OES spark emission analysis for high- and low-alloy steels\*
- Infrared spectral analysis FT-IR

## Environment simulation

- Accelerated outdoor weathering DIN EN 4892-2
- Environmental test DIN EN 60068-8-52

- Corrosion testing in artificial atmosphere – Salt-spray test DIN EN ISO 9227\*
- Climate tests -40°C to 180°C at 10 – 98% rel. humidity
- High tempering up to 650°C

## Surface testing

- Surface roughness
- Measurement of colors in CIELAB color space
- Visual assessment

## Component test

Depending on the customer's requirements, we adjust to their specific equipment and determine the material properties required by architects or stress analysts, for example.

## Residual field intensity

Measurement of the field strength e.g. of screws

## Fall testing

Fall testing, e.g. of cases, packages DIN EN 22248

## Cardboard testing

Measurement with box carton testers up to 30 kN DIN EN ISO 12048

Edge crush resistance 5 kN DIN EN ISO 3037

## Battery testing

Capacity, discharging properties and charging properties, from button cells to monocells

## Lamp testing

Measurement of the light spectrum and lumens of light bulbs, LEDs and energy-saving lamps

## Protective equipment

- Martindale abrasion test
- Cut protection test
- Penetration test

\*Testing possible at accredited testing laboratory (DIN EN ISO/IEC 17025)

## WÜRTH INTERNATIONAL AG IN CHUR

Würth International AG developed during 50 years into a company with more than 400 employees. Today, central purchasing for the Würth Group is one of the most important mainstays of Würth International AG. In the mid-1990s, central purchasing branches were founded in America and Asia. This enabled Würth International AG to meet its customers' needs even better.

The logistics center in Landquart was brought to life almost at the same time. This facility makes it possible to supply customers quickly and reliably. Our subsidiary in Bratislava (Slovakia) also provides a weighing service for the entire Würth Group. The testing laboratories of Würth central purchasing are located in Switzerland (Landquart), Slovakia (Bratislava) and China (Shanghai).



## TESTING LABORATORY IN LANDQUART (SWITZERLAND)

From the very beginning, professionally competent and reliable quality assurance was ensured for the inspection of incoming goods at the logistics center of Würth International AG in Landquart. In addition to the incoming goods inspection, the sampling of new products and complaint processing are some of the main tasks handled by the central purchasing quality assurance personnel.

With the construction of the new warehouse in 2002 and complete redesigning of the testing laboratory in 2011, the laboratory was outfitted with a modern and targeted infrastructure.

In addition to the classic mechanical tests, the testing laboratory also became specialized in the examination of chemical products. Some of the most important testing devices include a 20 kN tension testing machine, a measuring microscope which can record 3D models, various hardness testers (Rockwell, Vickers, Shore), a 2D measuring station, a box column drill for service-life and tool tests, simple breakage torque tests, an x-ray for material analysis of metals and coating measurements, a salt-spray chamber for corrosion-protection tests, an infrared spectrometer for testing chemical substances, a climate cabinet, a rheometer for viscosity measurement and other analytical testing possibilities for the determination of poisonous substances, such as PAKs and chrome 6.



**Manuel Hallauer**  
Quality assurance

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## TESTING LABORATORY IN BRATISLAVA (SLOVAKIA)

Würth International Trading s.r.o. in Bratislava is the Würth Group's competent organization for DIN and standard parts.

In addition to trading activities, our colleagues in Bratislava handle a host of logistic services for the Würth Group companies.

Thanks to the use of state-of-the-art equipment and trained personnel, we are able to satisfy the demand for high quality by customers. All requirements for initial samples and new product and standard testing are fulfilled at the laboratory in Bratislava.



**Norbert Cillik**  
Quality assurance

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## TESTING LABORATORY IN SHANGHAI (CHINA)

Initial samples from Asian suppliers, in particular, are tested at the testing laboratory in Shanghai. Samples are taken from each delivery and tested to determine whether they meet our high quality standards.

The very well-trained personnel and the laboratory, which is equipped with all the important testing devices (e.g. a tension testing machine, a coating thickness measuring device, a torque test rig and other testing devices) ensures high quality, including that of imports from Asia. This ensures that only faultless products are shipped.



**Steven Xu**  
Quality assurance

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## WÜRTH INDUSTRIE SERVICE GMBH & CO. KG

Würth Industrie Service GmbH & Co. KG was founded on 1/1/99 as a spin-off of the industry division of Adolf Würth GmbH & Co. KG in Bad Mergentheim.

In the area of quality assurance, a well-equipped testing laboratory is available. Both the equipment and personnel of this laboratory are continually invested in. All the required geometric measurement possibilities required for our products, our own means for metallography and a broad spectrum of testing devices are available, for example:

- Hardness tests for metals and plastic
- Small-load hardness test
- Torque test rigs
- Pulling test rig for dimensions up to M80
- Tension testing machine
- X-ray fluorescence spectroscope
- Surface-roughness measuring device
- Measuring microscope
- 3D-coordinate measuring machine
- Contour measuring device
- Optical rotation measurement system
- Impact test bending facility



**Optical coordinate measuring machine (3D):** Optical 3-coordinate measurement, measurement precision down to 3 µm and serial measurement possible. Contact-less measurement system for determining diameters, radii, angles etc.

### Friction coefficient testing machine/torsion testing machine



### Initial sample testing

Before we begin the serial supply of our industrial customers, we generate corresponding initial sample test reports at our laboratories on request, for example in accordance with the VDA, PPAP or custom specifications.

Applicable deliveries to Würth Industrie Service GmbH & Co. KG are also ensured using the initial sample process in these cases, whereby our laboratories cross-check the initial sample test reports from suppliers accordingly and make decisions regarding approval.



#### Dr. Uwe Hasselmann

Technical department

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### Part Submission Warrant 7831-00

Part Name	SECHSKANTSCHRAUBE MIT SCHAFT TP.	Cust. Part Number	
Shown on Drawing No.	246340	Würth Number	
Engineering Change Level	02-084		
Additional Engineering Changes			
Safety and/or Government Regulation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Purchase Order No.	
Checking Aid No.		Checking Aid Engineering Change Level	
<b>ORGANIZATION MANUFACTURING INFORMATION</b>		<b>CUSTOMER SUBMISSION</b>	
Würth Industrie Service GmbH + Co. KG / Supplier Name / Supplier Code		<input checked="" type="checkbox"/> Dimensional	<input checked="" type="checkbox"/> Material
Drillberg Street Address		Customer Name/Division	M
Bad Mergentheim 97980 Germany City Postal Code Country		Buyer/Buyer Code	
		Application	
<b>MATERIALS REPORTING</b>			
Has customer-required Substances of Concern information been reported?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Submitted by IMDS-ID-Nr.: 173512105 / 2			
Are plastic parts identified with appropriate ISO marking codes?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<b>REASON FOR SUBMISSION (Check at least one)</b>			
<input type="checkbox"/> Initial Submission		<input type="checkbox"/> Change to Optional Co	
<input type="checkbox"/> Engineering Change(s)		<input checked="" type="checkbox"/> Sub-Supplier or Mater	
<input type="checkbox"/> Tooling: Transfer, Replacement, Refurbishment, or additional		<input type="checkbox"/> Change in Part Process	
<input type="checkbox"/> Correction of Discrepancy		<input type="checkbox"/> Parts Produced at Add	
<input type="checkbox"/> Tooling Inactive > than 1 year		<input type="checkbox"/> Other - please specify	

Excerpt from an OEM PPAP form

## WÜRTH SERVICE SUPPLY INC. (USA)

Würth Service Supply Inc. in Indianapolis offers industrial customers a broad product range, individualized support and comprehensive technical consultation by applications engineers.

At the quality assurance testing laboratory, a broad spectrum of dimensional testing possibilities and test devices are available for testing mechanical properties such as hardness, tensile and torsion strength, impact testing work and micro-hardness. In addition, a variety of functional tests are carried out in joint development and coordination with our customers.



#### Stan Davis

Quality assurance

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# WÜRTH GULF SUBMITTAL

## Rost-Off PLUS

**Art. No. 0890200004**

**Content: 400 ml**

**Country of Origin**



Date : August 31,2023



## Country of Origin

We herewith declare under our sole responsibility that:

Item Number	Item Description	Country of Origin
0890 200004	RUST REMOVER ROST-OFF PLUS	switzerland

is manufactured exclusively in our factories in Italy under supervision of our Wurth Quality Control laboratories.

We trust to have been of service with this declaration and remain

With kindest regards,



Product Department

Abdul Rahman Hussein