

The new „HS Cleaner 1“

Operator´s manuall & working instruction

- ⇒ **cleaning**
- ⇒ **marking**



! Referral:

To ensure putting into operation, operation and maintenance of the Cleaner a Faultless and sure it is recommended to make to the service staff accessible and to read through before use this operator´s manual well.

Follow the safety instructions!

**HS Cleaner
Werner Krauter GmbH
Siemensstraße 2-5
D-73037 Göppingen**

HS Cleaner 1

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1. Purpose:

The device may exclusively to the cleaning of very alloyed steels as well as metal surfaces mark electrically more leadingly used be.

2. Safety instruction:

Wearing protective clothing, acid-resistant protective gloves and safety goggles when work with the device. Working only in rooms ventilated well.

Avoid eye contact absolutely, injury danger!

If Electrolyte liquid should reach the eyes nevertheless, with a lot of water at least 15 min. rinse out for a long time, immediately go to doctor!
Cleaning at skin and cloth contact with a lot of water.

3. Technical data:

Line voltage	230 V, 50 Hz
Protection primary	micro fuse 5 x 20 mm, 5 A träge
Protection secondary	circuit breaker ETA 25 A
Nominal power	260 VA
Output stream	0 – 18,5 A bei 100 % ED
Highest secondary voltage	AC – 14V
Enclosure rating	IP 21
Measures L x W x H	300 x 120 x 270 mm oder 260 x 220 x 220 mm
Weight	ca. 5,5 kg

***The device is allowed to carry the „S-sign“:
Working suitably for it in narrow rooms with endangering specially for a
Special safety.***

Producer:

**HS Cleaner
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4. Transport instruction:

All containers have to be locked well!

Ambient temperature -5° bis $+ 40^{\circ}$ C

Max. rel. Air humidity 95 %, Use only in interiors.

The built-in electrical parts have to be protected from an immediate wetness influence.

5. Putting into operation:

Importing connection lines into the equipment sockets by easily pushing at the plug red and black color identically.

Attaching hand stamps to the black cable with graphite electrode.

Current stick red connect with workpiece.

Put stamps down always isolatedly!

Plugging enclosed mains power line in at the back and putting switches on "on".
If the light-emitting diode shines at the front, the device is operational.

6. Operating mode:

6.1 cleaning:

- * Putting over stamps and fastening with rubber ring yellow, in front of moistened Keflar long time felt on both sides.
Dipping stamps into the wide neck container filled with "Cleanox 2".
- * Putting performance regulators on "norm" and switch on "cleaning".
- * Under an easy pressure the welded seam by slow in front of-and clean forward movements backward.
- * Put stamps always isolated down (f.e. in the wide neck container)!
- * Rinsing off cleaned seam with water.
- * Stamp and felt should be washed with water after finishing the work.

6.2 Marking dark:

The "marking electrolyte universal" (not contained into accessory suitcases)! is used for marking on metal and high-grade steel surfaces.

Approach:

- * Putting stencil on workpiece cleaned well and fixing perhaps with adhesive tape.
- * Attaching marking felt to the stamp and moistening this well
- * Put performance regulator on „norm“ and switch on „marking“.
- * Painting under an easy pressure over stencil slowly with a moistened stamp 2 until 3 times.
- * ***Put down after marking on stamps isolatedly!***
- * Cleaning stamps and felt after the end of the marking stencil with water thoroughly
With chafed through felt the protective switch could release 20 Amp.
Remedy: Replacing felt and pressing in circuit breakers again:

Area of application „marking electrolyt Universal“:

Steel	10-14 V alternating current	2-3 sec. or rather. 2-3 x overline
High grade steel (V2A etc.)	9-14 V alternating current	2-3 sec. or rather 2-3 x overline
High alloy steel (18/10 etc.)	12 V alternating current	time of sign be reduced(or else bright)
Brass / copper	12 V alternating current	1-2 sec. or rather 1-2 x times overline Rinsed off, dried and after this wash with an easily moistened cloth.
Yellow chrome matt surface	12 V alternating current	time of sign perhaps little extended
Nickel coat	12 V alternating current	2-3 sec. or rather 2-3 x overline
Zinc	12-14 V alternating current	1-4 sec. or 1-4 x overline

Generally applies to iron-bearing steels:

As soon as the signing picture gets sheer (whitish), too much current runs.

→ Shortening current/tension down rules, possible signing time

6.3 brush cleaning:

AC cleaning take the power governor to – sign
To optimise cleaning, you can rotate the power governor infinitely
You can use the brush with all electrolyt
After using clean the brush with fresh clear water

7. Safety data:

Cleanox 2 is "corrosive" and with that it has no obligation duties.
It is suitable for the remove of easy and strong oxide films.

Further information see under 11. Safety data Cleanox 2.

8. Maintenance:

The device is maintenance-free.
An annual check by an electric qualified employee to VDE 0701-1
is recommended.

9. General:

The special qualities while cleaning and marking are achieved by a control engineering,, this one was developed exclusively for these tasks.

No function of the light-emitting diode on the front of the device:
Check ac power supply

The equipment fuse can if necessary "fine protection 5 x 20 mm 5 ares sluggish"
be exchanged by high flaping the lid at the on and off switch (equipment rear).

10. Accessoires / spare parts:

The accessories-/ spare part list is integrated and can be taken from our price list.

11. Safety data Cleanox 2:

Enclosed you will receive the safety data sheet for electrolyt Cleanox 2.

12. EC-conformity explanation:

Description of the machine: metal cleaning and marking device

Machine type: HS-Cleaner 1

In the execution brought about to circulation by us the machine meets the requirements of following guidelines in her conception:

*EC low voltage guideline 73/23/EEC changed by 93/68/EEC
EC guideline over electromagnetic compatibility 96/336/EEC.*

Applied norms:

EN 55011, EN 61000 6 – 2, EN 61000 3 – 2, EN 61000 3 – 3

In the case of unauthorized changes, inappropriate repairs or changes, which are not authorized by the manufacturer expressly, this explanation loses its validity

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CLEANOX 2
Safety data sheet
According to 91/155/EWG
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1. Substance/preparation- and company name.

Details on the product

name: Cleanox 2
supplier: HS-Cleaner Werner Krauter GmbH,
Siemensstraße 2–5, D-73037 Göppingen
telephone: 07161 / 9383-123, Telefax 07161 / 9383-
1355
emergency information: see above

2. Composition/details on components.

Chemical characterisation:

Watery preparation from weak acidic
components and auxiliary materials.

Dangerous content substances:

CAS-Nr:	description	Wt-%	classification
7664-38-2	mineral acid	1 - 11	C R34-35

3. Possible dangers of the preparation.

Hazard description: corrosive

Special explanation of dangers:

For human and environment Irritates the eyes and the skin

Water endangering class: 1

4. First-Aid measures

General explanation:

After skin contact: change dirty clothes
rinsing off with water and soap

After eye contact: Washing eyes with water for long time
thoroughly.

After swallowing: Not causing any vomiting.
consult a doctor immediately



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5. Fire-fighting measures

- Suitable deleting means.: the product is not flammable
For safety reasons
Unsuitable deleting means: full jet of water
Endangering specially by the substance, its waste products of combustion or arising gasses: may built up SO₂, H₂S
Special protective equipment: Carrying air recycling dependent breathing apparatus.
Special dangers: At contact with metals can form hydrogen gas (danger of explosion!)

6. Accidental release measures

- Person drawee precautions.:
Keep unprotected persons away
Wear protective clothing
Environmental precautions: Not letting electrolyte reach the sewage system, waters and soil.
Method of cleaning up/admission.:
Soak up with innered absorbent material
Disposing of contaminated material duly.

7. Handling

- Indications for secure dealing.:
Wear protective clothing
Avoid the formation of aerosols
Indications for the fire and explosion protection:
No special measures required
Storage: Keeping containers locked thick at room temperature and store it at a place that is ventilated well and dryly.



Acid-resistantly floor, don't use metal containers.

Further details: Offering protection against frost

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8. Exposure controls and personal protection

Technical protection measures:

See point 7

Personal protection equipment:

General protection and hygiene explanations:

Avoid direct eye contact, do not eat, drink or smoke during the work

Before the breaks and after finishing work wash your hands.

Respiratory protection:	At aerosol formation
Hand protection:	Impermeable protective gloves
Eye protection:	Safety goggles
Body protection:	Adequate working clothes/ protective clothing.

9. Physical and chemical attributes

Form:	liquid
Colour:	physically colourless, clear till pale yellow
Aroma:	Aromaless
Flaming point:	not appointed
Density:	at 20° C 1,072 g/cm ³
Solubility into water.:	soluble
Boiling point:	158° C
Steam pressure at 20° C	0,22 mbar
PH-value at 20° C	weak acidic

10. Stability and reactivity

to avoiding conditions:	avoid strong warming
to avoiding substances:	metals, alkalis, metal oxides



Dangerous products of decomposition: No decomposition at application as agreed.

Further details: Incompatible with iron-bearing connections steel, aluminum and its connections.



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11. Details on toxicologie

Irritancies to skin and eyes.

12. Details on ecology

Water endangering class: 1(self-classification)
Not letting condensed extract reach the sewage system, waters and soil.

13. Details on disposal

Product recommendation:
Not letting it reach the sewage system
Disposing not together with domestic garbage
Disposing normally after neutralization on / (pH) 7.
Disposal key: Waste no. 060106 not halogenous organic acids.

14. Details on transport

No obligation duties according to the transport regulations

15. Regulations

Identification according to the hazardous materials ordinance:
corrosive

Special identification. : No obligation duties on preparation

Water endangering class: 1 (self-classification)
R-sentences: corrosive
VBF: Not listed

16. Other details

The details in this safety data sheet are based on today's stand of our knowledge and serve to describe the product with regard to the safety precautions to be taken.

They don't represent any assurance of product qualities, however, and don't give reasons for any contractual facts of the case.