

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ultra-5 quick burnishing solution

Revision date: 09.02.2022

Product code: DG-010

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

Ultra-5 quick burnishing solution

UFI: 1000-50SE-J00P-UTU3

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

Creating a black layer on iron, steel and zinc (burnishing)

Uses advised against

Other uses than those specified in section 1.2 of this safety data sheet are not recommended.

1.3. Details of the supplier of the safety data sheet

Company name: Dr. Galva Thomas Henning
Street: Jungholzstraße 7A
Place: D-76726 Germersheim
Telephone: +49 7274 – 907 91 27
e-mail: info@drgalva.com
Internet: www.drgalva.com

1.4. Emergency telephone number:

Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department or the NHS enquiry service.

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory or skin sensitisation: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

May be corrosive to metals.

Harmful if inhaled.

Causes severe skin burns and eye damage.

Causes serious eye damage.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

Selenium dioxide

copper sulphate pentahydrate

potassium bifluoride; potassium hydrogen difluoride

nickel sulfate

Signal word: Danger

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Pictograms:



Hazard statements

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P260	Do not breathe dust/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P501	Dispose of contents/container according to regional/national regulations. Do not discard with household waste.

2.3. Other hazards

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	GHS Classification	
5329-14-6	sulphamidic acid; sulphamic acid; sulfamic acid	1 - < 5 %
	226-218-8	
	016-026-00-0	
	01-2119488633-28	
	Skin Irrit. 2, Eye Irrit. 2, Aquatic Chronic 3; H315 H319 H412	
7446-08-4	Selenium dioxide	1 - < 5 %
	231-194-7	
	034-002-00-8	
	01-2120089867-33	
	Acute Tox. 2, Acute Tox. 3, Skin Corr. 1B, Eye Dam. 1, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H330 H301 H314 H318 H373 H400 H410	
7758-99-8	copper sulphate pentahydrate	1 - < 5 %
	231-847-6	
	029-023-00-4	
	01-2119520566-40	
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H302 H315 H318 H400 H410	
7789-29-9	potassium bifluoride; potassium hydrogen difluoride	< 1 %
	232-156-2	
	009-008-00-9	
	01-2119960644-32	
	Acute Tox. 3, Skin Corr. 1B; H301 H314	
7786-81-4	nickel sulfate	< 0.1 %
	232-104-9	
	028-009-00-5	
	Carc. 1A, Muta. 2, Repr. 1B, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 1; H350i H341 H360D H332 H302 H315 H334 H317 H372 H400 H410	

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
5329-14-6	226-218-8	sulphamidic acid; sulphamic acid; sulfamic acid	1 - < 5 %
		oral: LD50 = 3160 mg/kg	
7446-08-4	231-194-7	Selenium dioxide	1 - < 5 %
		inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); oral: ATE = 100 mg/kg	
7758-99-8	231-847-6	copper sulphate pentahydrate	1 - < 5 %
		oral: ATE = 500 mg/kg M acute; H400: M=10 M chron.; H410: M=10	
7789-29-9	232-156-2	potassium bifluoride; potassium hydrogen difluoride	< 1 %
		oral: ATE = 100 mg/kg Skin Corr. 1B; H314: >= 1 - 100 Skin Irrit. 2; H315: >= 0,1 - < 1 Eye Irrit. 2; H319: >= 0,1 - < 1	
7786-81-4	232-104-9	nickel sulfate	< 0.1 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: ATE = 500 mg/kg Skin Irrit. 2; H315: >= 20 - 100 Skin Sens. 1; H317: >= 0,01 - 100 STOT RE 1; H372: >= 1 - 100 STOT RE 2; H373: >= 0,1 - < 1 M acute; H400: M=1 M chron.; H410: M=1	

Further Information

The percentages of the ingredients not listed here are all below the level of consideration.

SECTION 4: First aid measures
4.1. Description of first aid measures

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General information

In case of troubles or persistent symptoms, consult an doctor/physician.
Remove persons from danger area and lie them down. Never orally infuse something to an unconscious person. No special first aid measures necessary. A vomiting, supine person must be brought into recovery position.

After inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.
In case of irregular breathing or respiratory arrest, perform artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Call a doctor. Change contaminated clothing. Wash contaminated clothing before reuse.

After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

After ingestion

Rinse mouth, spit liquid again. Do NOT induce vomiting. Let water be drunken in little sips (dilution effect). Call a physician immediately. Aspiration hazard.

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

Causes severe skin burns and eye damage. May cause an allergic skin reaction. Harmful if swallowed.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂). Extinguishing powder. Fight larger fires with water spray jet or alcohol-resistant foam.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Upon exposure to fire, harmful gases may be emitted.

5.3. Advice for firefighters

Co-ordinate fire-fighting measures to the fire surroundings. Wear a self-contained breathing apparatus and chemical protective clothing.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Wear suitable protective clothing.
Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up**Other information**

Remove material mechanically. Treat the recovered material as prescribed in the section on waste disposal.
Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8

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Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Personal precautions: refer to section 8 Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used.

Provide adequate ventilation, especially in confined areas.

Advice on general occupational hygiene

Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

Further information on handling

Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Store only in original container. Keep container tightly closed in a cool, well-ventilated place.

Protect from heat/overheating.

Store separately from oxidizing agents.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Creating a black layer on iron, steel and zinc (burnishing)

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Additional advice on limit values**

To date, no national critical limit values exist.

8.2. Exposure controls**Individual protection measures, such as personal protective equipment****Eye/face protection**

Tightly sealed safety glasses.

Hand protection

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

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Skin protection

The design of personal protective equipment must be selected specifically for the job, depending on the concentration and quantity of hazardous substances. The chemical resistance of the protective agents should be clarified with their suppliers.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Protective respiration apparatus not using surrounding air (breathing apparatus) (DIN EN 133).

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	blue

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Odour: characteristic

Changes in the physical state

Melting point/freezing point: no data available

Boiling point or initial boiling point and boiling range: 100 °C

Flash point: no data available

Flammability

Solid/liquid: no data available

Explosive properties

not Explosive.

Lower explosion limits: no data available

Upper explosion limits: no data available

Auto-ignition temperature: no data available

Self-ignition temperature

Solid: no data available

Decomposition temperature: no data available

pH-Value (at 20 °C): 1,0

Viscosity / dynamic: no data available

Viscosity / kinematic: no data available

Water solubility: no data available

Solubility in other solvents

no data available

Partition coefficient n-octanol/water: no data available

Density: 1,0-1,1 g/cm³

Bulk density: no data available

9.2. Other information

Oxidizing properties
no data available

Further Information

no data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactivity under regular conditions.

10.2. Chemical stability

The product is stable under normal environmental conditions (room temperature).

10.3. Possibility of hazardous reactions

Protect against heat and direct solar irradiation. Protect against contaminations. Reacts with water and moisture.

10.4. Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5. Incompatible materials

Oxidising substances, Moisture-sensitive.

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10.6. Hazardous decomposition products

In case of fire hazardous decomposition products may be formed.
Carbon dioxide (CO₂). Carbon monoxide. Nitrogen oxides (NO_x).

SECTION 11: Toxicological information
11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity

Harmful if inhaled.

ATEmix calculated

ATE (inhalation vapour) 19,23 mg/l; ATE (inhalation aerosol) 1,923 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
5329-14-6	sulphamidic acid; sulphamic acid; sulfamic acid				
	oral	LD50 3160 mg/kg	Rat		
7446-08-4	Selenium dioxide				
	oral	ATE 100 mg/kg			
	inhalation vapour	ATE 0,5 mg/l			
	inhalation aerosol	ATE 0,05 mg/l			
7758-99-8	copper sulphate pentahydrate				
	oral	ATE 500 mg/kg			
7789-29-9	potassium bifluoride; potassium hydrogen difluoride				
	oral	ATE 100 mg/kg			
7786-81-4	nickel sulfate				
	oral	ATE 500 mg/kg			
	inhalation vapour	ATE 11 mg/l			
	inhalation aerosol	ATE 1,5 mg/l			

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Sensitising effects

May cause an allergic skin reaction. (nickel sulfate)

Carcinogenic/mutagenic/toxic effects 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.

11.2. Information on other hazards
Endocrine disrupting properties

none known

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SECTION 12: Ecological information
12.1. Toxicity

Toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
5329-14-6	sulphamidic acid; sulphamic acid; sulfamic acid					
	Acute fish toxicity	LC50 mg/l	70,3	96 h	Pimephales promelas	

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Endocrine disrupting properties

none known

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Disposal recommendations

Disposal according to official regulations.

Consult the local waste disposal expert about waste disposal. According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information
Land transport (ADR/RID)

14.1. UN number or ID number:	UN 3264
14.2. UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Selenium dioxide)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8



Classification code:	C1
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2

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 Hazard No: 80
 Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 3264
14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Selenium dioxide)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Hazard label: 8



Classification code: C1
 Special Provisions: 274
 Limited quantity: 1 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number or ID number: UN 3264
14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Selenium dioxide)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Hazard label: 8



Special Provisions: 274
 Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 3264
14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Selenium dioxide)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Hazard label: 8



Special Provisions: A3 A803
 Limited quantity Passenger: 0.5 L
 Passenger LQ: Y840
 Excepted quantity: E2
 IATA-packing instructions - Passenger: 851
 IATA-max. quantity - Passenger: 1 L
 IATA-packing instructions - Cargo: 855
 IATA-max. quantity - Cargo: 30 L

14.5. Environmental hazards

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ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: Selenium dioxide, copper sulphate pentahydrate

14.6. Special precautions for user

No special precautions known.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 28

Information according to 2012/18/EU (SEVESO III): E2 Hazardous to the Aquatic Environment

Additional information

Regulation (EC) No. 1907/2006 (REACH)

Regulation (EC) No. 648/2004 (Detergents regulation): not applicable

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants: not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council concerning the export and import of dangerous chemicals: This mix contains no chemicals that are subject to the export notification procedures (annex 1).

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: none

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

15.2. Chemical safety assessment

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

sulphamic acid; sulphamic acid; sulfamic acid

Selenium dioxide

copper sulphate pentahydrate

potassium bifluoride; potassium hydrogen difluoride

SECTION 16: Other information
Changes

This data sheet contains changes from the previous version in section(s): 2,4,11,12,14,15,16.

Version 1,00 - 22.03.2021 - first creation

Version 1,01 - 09.02.2022 - General update

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

BImSchV (Fed.Imm.Prot.Act): Directive on the Implementation of the Federal Immission Protection Act

CAS: Chemical Abstracts Service

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DIN: Norm of the Deutsche Institut für Normung (German Institute for Standardization)
 EC: Effective Concentration
 EG: European Community (Europäische Gemeinschaft)
 EN: European Norm
 IATA: International Air Transport Association
 IBC Code: International Code for the Construction and Equipment of ships carrying Dangerous Chemicals in Bulk
 ICAO: International Civil Aviation Organization
 IMDG: International Maritime Code for Dangerous Goods
 ISO: Norm of the International Standards Organization
 CLP: Classification, Labeling, Packaging
 IUCLID: International Uniform Chemical Information Database
 LC: Lethal concentration
 LD: Lethal dose
 log Kow: Octanol/water partition coefficient
 MARPOL: Maritime Pollution Convention = Convention for the Prevention of Maritime Pollution from Ships
 OECD: Organisation for Economic Co-operation and Development
 PBT: Persistent, bio-cumulative, toxic
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail
 TRGS: Technische Regeln für Gefahrstoffe
 UN: United Nations
 VOC: Volatile Organic Compounds
 vPvB: very persistent and very bio-cumulative
 VwVwS: Administrative Regulation for Water Pollutants
 WGK: German Water Hazard Class
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 DNEL: Derived No Effect Level
 PNEC: Predicted No Effect Concentration
 TLV: Threshold Limiting Value
 STOT: Specific Target Organ Toxicity

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

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Acute Tox. 4; H332	Calculation method
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	On basis of test data
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.

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H350i	May cause cancer by inhalation.
H360D	May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Further Information

The information given in this safety data sheet is to describe the product's safety regulations. It is not for guaranteeing certain characteristics and is based on today's knowledge. The safety data sheet was generated upon information of pre-suppliers by:

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(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)