

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 1 of 14

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

### 1.1. Product identifier

Ultra-5

UFI: 5H20-U0SX-F001-0QQY

### 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: Thomas Henning e.K.  
Street: Buschurweg 4  
Place: D-76870 Kandel  
Telephone: +49 7275 94 78 199  
E-mail: info@drgalva.com  
Internet: drgalva.net

### 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

Met. Corr. 1; H290  
Acute Tox. 4; H332  
Acute Tox. 4; H302  
Skin Corr. 1B; H314  
Eye Dam. 1; H318  
Skin Sens. 1; H317  
Aquatic Acute 1; H400  
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### Regulation (EC) No 1272/2008

#### Hazard components for labelling

phosphoric acid  
Selenium dioxide  
copper sulphate pentahydrate  
nickel sulfate

Signal word: Danger

Pictograms:



#### Hazard statements

H290 May be corrosive to metals.  
H302+H332 Harmful if swallowed or if inhaled.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 2 of 14

|      |  |
|------|--|
| H314 | Causes severe skin burns and eye damage.         |
| H317 | May cause an allergic skin reaction.             |
| H400 | Very toxic to aquatic life.                      |
| H411 | Toxic to aquatic life with long lasting effects. |

#### Precautionary statements

|                |  |
|----------------|--|
| P101           | If medical advice is needed, have product container or label at hand.  |
| P102           | Keep out of reach of children.   |
| P260           | Do not breathe dust/vapours/spray.   |
| P280           | Wear protective gloves/protective clothing and eye protection/face protection.   |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.   |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.                           |
| 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           | Do not discard content with household waste and forward for disposal according to regional/national guidelines.                  |

#### 2.3. Other hazards

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

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 3 of 14

### Relevant ingredients

| CAS No    | Chemical name  | Quantity     |
|-----------|--|--------------|
|           | EC No  | Index No     |
|           | Classification (Regulation (EC) No 1272/2008)  | REACH No     |
| 7664-38-2 | phosphoric acid  | 10 - < 15 %  |
|           | 231-633-2  | 015-011-00-6 |
|           | 01-2119485924-24   |              |
|           | Met. Corr. 1, Acute Tox. 4, Skin Corr. 1B; H290 H302 H314  |              |
| 7446-08-4 | Selenium dioxide   | 2,5 - < 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   | 2,5 - < 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  |              |
| 1314-13-2 | zinc oxide   | 1 - < 2,5 %  |
|           | 215-222-5  | 030-013-00-7 |
|           | 01-2119463881-32   |              |
|           | Aquatic Acute 1, Aquatic Chronic 1; H400 H410  |              |
| 7681-49-4 | sodium fluoride  | 0,5 - < 1 %  |
|           | 231-667-8  | 009-004-00-7 |
|           | 01-2119539420-47   |              |
|           | Acute Tox. 3, Skin Irrit. 2, Eye Irrit. 2; H301 H315 H319 EUH032   |              |
| 7786-81-4 | nickel sulfate   | < 0,1 %      |
|           | 232-104-9  | 028-009-00-5 |
|           | 01-2119439361-44   |              |
|           | 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   |             |
| 7664-38-2 | 231-633-2 | phosphoric acid  | 10 - < 15 % |
|           |           | oral: ATE = 500 mg/kg Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25  |             |
| 7446-08-4 | 231-194-7 | Selenium dioxide   | 2,5 - < 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   | 2,5 - < 5 % |
|           |           | oral: ATE 481 mg/kg Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=1   |             |
| 1314-13-2 | 215-222-5 | zinc oxide   | 1 - < 2,5 % |
|           |           | oral: LD50 = > 5000 mg/kg  |             |
| 7681-49-4 | 231-667-8 | sodium fluoride  | 0,5 - < 1 % |
|           |           | oral: LD50 = 52 mg/kg  |             |
| 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 Aquatic Acute 1; H400: M=1 Aquatic Chronic 1; H410: M=1 |             |

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 4 of 14

#### 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

##### General information

In case of troubles or persistent symptoms, consult an doctor/physician.

##### 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

irritation. burnes. gastro-intestinal ailment. Spasms. vomiting. Dyspnoea. Nausea. Stomach perforation. Circulatory collapse. Pulmonary oedema  
Allergic reactions

#### 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 (CO<sub>2</sub>). 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

Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. 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. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 5 of 14

#### For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Wear personal protection equipment. Treat the recovered material as prescribed in the section on waste disposal.

#### For cleaning up

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

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.

Do not empty into drains; dispose of this material and its container in a safe way.

#### 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

#### Occupational exposure limits

| CAS No    | Substance                              | ppm | mg/m <sup>3</sup> | fib/cm <sup>3</sup> | Category      | Origin |
|-----------|--|-----|-------------------|---------------------|---------------|--------|
| -         | Fluorides, inorganic                   | -   | 2.5               |                     | TWA (8 h)     |        |
| 7664-38-2 | Orthophosphoric acid                   | -   | 1                 |                     | TWA (8 h)     |        |
|           |  | -   | 2                 |                     | STEL (15 min) |        |
| 1314-13-2 | Zinc oxide, fume (Respirable Fraction) | -   | 2                 |                     | TWA (8 h)     |        |
|           |  | -   | 10                |                     | STEL (15 min) |        |

#### Biological limit values

| CAS No | Substance                                      | Parameter | Value  | Test material | Sampling time  |
|--------|--|-----------|--------|---------------|----------------|
| -      | Inorganic fluorides (not uranium hexafluoride) | Fluoride  | 2 mg/L | Urine         | Prior to shift |

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 6 of 14

#### DNEL/DMEL values

| CAS No                   | Substance  |                |        |                   |
|--------------------------|------------|----------------|--------|-------------------|
| DNEL type                |            | Exposure route | Effect | Value             |
| 1314-13-2                | zinc oxide |                |        |                   |
| Consumer DNEL, long-term |            | oral           |        | 0,83 mg/kg bw/day |
| Consumer DNEL, long-term |            | dermal         |        | 83,3 mg/kg bw/day |
| Worker DNEL, long-term   |            | dermal         |        | 83,3 mg/kg bw/day |
| Consumer DNEL, long-term |            | inhalation     |        | 2,5 mg/m³         |
| Worker DNEL, long-term   |            | inhalation     |        | 5 mg/m³           |

#### PNEC values

| CAS No   | Substance   |  |  |
|--|-------------|--|--|
| Environmental compartment                        | Value       |  |  |
| 1314-13-2  | zinc oxide  |  |  |
| Freshwater                                       | 0,021 mg/l  |  |  |
| Marine water                                     | 0,006 mg/l  |  |  |
| Freshwater sediment                              | 117,8 mg/kg |  |  |
| Marine sediment                                  | 56,5 mg/kg  |  |  |
| Micro-organisms in sewage treatment plants (STP) | 0,052 mg/l  |  |  |
| Soil   | 35,6 mg/kg  |  |  |

#### Additional advice on limit values

According to the currently valid lists, there are not further binding work place safety values.

#### 8.2. Exposure controls

##### Appropriate engineering controls

Do not breathe gas/fumes/vapour/spray. Provide protection equipment (eye wash bottles, etc.).

##### 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.

Suitable material:: NBR (Nitrile rubber).

Thickness of glove material: >0,35 mm

penetration time (maximum wearing period): >480 min.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### Skin protection

Protective clothing: Chemical resistant safety shoes

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.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 7 of 14

#### 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           |                   |
| Odour:  | characteristic |                   |
| Melting point/freezing point:                             |                | no data available |
| Boiling point or initial boiling point and boiling range: |                | 100 °C            |
| Flammability:   |                | no data available |
| Lower explosion limits:                                   |                | no data available |
| Upper explosion limits:                                   |                | no data available |
| Flash point:  |                | no data available |
| Auto-ignition temperature:                                |                | no data available |
| Decomposition temperature:                                |                | no data available |
| pH-Value (at 20 °C):                                      |                | 1,0               |
| Viscosity / kinematic:                                    |                | no data available |
| Water solubility:   |                | no data available |
| Solubility in other solvents                              |                | no data available |
| Dissolution rate:   |                | no data available |
| Partition coefficient n-octanol/water:                    |                | no data available |
| Dispersion stability:                                     |                | no data available |
| Vapour pressure:  |                | no data available |
| Density:  |                | 1,0-1,1 g/cm³     |
| Relative density:   |                | no data available |
| Bulk density:   |                | no data available |
| Relative vapour density:                                  |                | no data available |
| Particle characteristics:                                 |                | no data available |

### 9.2. Other information

#### Information with regard to physical hazard classes

Explosive properties

not Explosive.

Self-ignition temperature

Solid:

no data available

Oxidizing properties

no data available

#### Other safety characteristics

Viscosity / dynamic:

no data available

#### Further Information

no data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Substances or mixtures corrosive to metals.

### 10.2. Chemical stability

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 8 of 14

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

#### 10.3. Possibility of hazardous reactions

No dangerous reactivity under regular conditions.

#### 10.4. Conditions to avoid

Protect against contaminations.

#### 10.5. Incompatible materials

Oxidising substances

Base

#### 10.6. Hazardous decomposition products

In case of fire hazardous decomposition products may be formed.

Carbon dioxide (CO<sub>2</sub>). Carbon monoxide. Phosphorus oxides. Metal oxide smoke, toxic

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Harmful if inhaled.

Harmful if swallowed.

#### ATEmix calculated

ATE (oral) 1365 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) 12,20 mg/l; ATE (inhalation dust/mist) 1,220 mg/l

| CAS No    | Chemical name                |                   |         |        |        |
|-----------|------------------------------|-------------------|---------|--------|--------|
|           | Exposure route               | Dose              | Species | Source | Method |
| 7664-38-2 | phosphoric acid              |                   |         |        |        |
|           | oral                         | ATE 500 mg/kg     |         |        |        |
| 7446-08-4 | Selenium dioxide             |                   |         |        |        |
|           | oral                         | ATE 100 mg/kg     |         |        |        |
|           | inhalation vapour            | ATE 0,5 mg/l      |         |        |        |
|           | inhalation dust/mist         | ATE 0,05 mg/l     |         |        |        |
| 7758-99-8 | copper sulphate pentahydrate |                   |         |        |        |
|           | oral                         | ATE 481 mg/kg     |         |        |        |
| 1314-13-2 | zinc oxide                   |                   |         |        |        |
|           | oral                         | LD50 > 5000 mg/kg | Rat     |        |        |
| 7681-49-4 | sodium fluoride              |                   |         |        |        |
|           | oral                         | LD50 52 mg/kg     | Rat     | RTECS  |        |
| 7786-81-4 | nickel sulfate               |                   |         |        |        |
|           | oral                         | ATE 500 mg/kg     |         |        |        |
|           | inhalation vapour            | ATE 11 mg/l       |         |        |        |
|           | inhalation dust/mist         | ATE 1,5 mg/l      |         |        |        |

#### Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

#### Sensitising effects

May cause an allergic skin reaction. (nickel sulfate)



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 9 of 14

#### Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

#### STOT-single exposure

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

#### STOT-repeated exposure

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

#### Aspiration hazard

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

#### 11.2. Information on other hazards

##### Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

| CAS No    | Chemical name            |       |           |         |                                     |        |
|-----------|--------------------------|-------|-----------|---------|-------------------------------------|--------|
|           | Aquatic toxicity         | Dose  | [h]   [d] | Species | Source                              | Method |
| 7664-38-2 | phosphoric acid          |       |           |         |                                     |        |
|           | Acute fish toxicity      | LC50  | 138 mg/l  | 96 h    | Gambusia affinis                    |        |
| 1314-13-2 | zinc oxide               |       |           |         |                                     |        |
|           | Acute fish toxicity      | LC50  | 1,31 mg/l | 96 h    | Oncorhynchus mykiss (Rainbow trout) |        |
|           | Acute algae toxicity     | ErC50 | 0,21 mg/l | 72 h    | Pseudokirchneriella subcapitata     |        |
|           | Acute crustacea toxicity | EC50  | 2,2 mg/l  | 48 h    | Daphnia magna                       |        |
|           | Algae toxicity           | NOEC  | 0,04 mg/l |         | Pseudokirchneriella subcapitata     |        |
| 7681-49-4 | sodium fluoride          |       |           |         |                                     |        |
|           | Acute fish toxicity      | LC50  | 925 mg/l  | 96 h    | Gambusia affinis                    |        |
|           | Acute algae toxicity     | ErC50 | 850 mg/l  | 72 h    | Desmodesmus subspicatus             |        |
|           | Acute crustacea toxicity | EC50  | 338 mg/l  | 48 h    | Daphnia magna                       | IUCLID |

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

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

No data available.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 10 of 14

## 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.(phosphoric acid, Selenium dioxide)

#### 14.3. Transport hazard class(es):

8

#### 14.4. Packing group:

III

Hazard label:

8



Classification code:

C1

Special Provisions:

274

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

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. (phosphoric acid, Selenium dioxide)

#### 14.3. Transport hazard class(es):

8

#### 14.4. Packing group:

III

Hazard label:

8



Classification code:

C1

Special Provisions:

274

Limited quantity:

5 L

Excepted quantity:

E1

### 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. (phosphoric acid, selenium dioxide )

#### 14.3. Transport hazard class(es):

8

#### 14.4. Packing group:

III

Hazard label:

8

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 11 of 14



Special Provisions: 223 274  
 Limited quantity: 5 L  
 Excepted quantity: E1  
 EmS: F-A, S-B  
 Segregation group: 1 - acids

### 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. (phosphoric acid, selenium dioxide )  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
 Hazard label: 8



Special Provisions: A3 A803  
 Limited quantity Passenger: 1 L  
 Passenger LQ: Y841  
 Excepted quantity: E1  
 IATA-packing instructions - Passenger: 852  
 IATA-max. quantity - Passenger: 5 L  
 IATA-packing instructions - Cargo: 856  
 IATA-max. quantity - Cargo: 60 L

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: Selenium dioxide, copper sulphate pentahydrate, zinc oxide

### 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 27, Entry 75

Information according to Directive 2012/18/EU (SEVESO III):

E1 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 2019/1021 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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 12 of 14

(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):

3 - highly hazardous to water

#### Additional information

Observe in addition any national regulations!

#### 15.2. Chemical safety assessment

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

phosphoric acid

Selenium dioxide

copper sulphate pentahydrate

zinc oxide

sodium fluoride

nickel sulfate

#### SECTION 16: Other information

##### Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,4,6,7,8,9,10,11,12,14,15,16.

Version 1,00 - 22.03.2021 - first creation

Version 1,01 - 09.02.2022 - General update

Version 1,02 - 29.08.2023 - Change and revision of the SDS because of new information / recipe

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 13 of 14

#### Abbreviations and acronyms

Met. Corr. 1: Corrosive to metals, hazard category 1  
 Acute Tox. 2: Acute toxicity, hazard category 2  
 Skin Corr. 1B: Skin corrosion, sub-category 1B  
 Skin Irrit. 2: Skin irritation, hazard category 2  
 Eye Dam. 1: Serious eye damage, hazard category 1  
 Eye Irrit. 2: Eye irritation, hazard category 2  
 Resp. Sens. 1: Respiratory sensitisation, hazard category 1  
 Skin Sens. 1: Skin sensitisation, hazard category 1  
 Muta. 2: Germ cell mutagenicity, hazard category 2  
 Carc. 1A: Carcinogenicity, hazard category 1A  
 Repr. 1B: Reproductive toxicity, hazard category 1B  
 STOT RE 1: Specific target organ toxicity - repeated exposure, hazard category 1  
 Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1  
 Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard category: Chronic 1  
 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  
 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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Ultra-5

Revision: 28.09.2023

Product code: DG-010

Page 14 of 14

#### 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       |
| Acute Tox. 4; H302      | Calculation method       |
| Skin Corr. 1B; H314     | Calculation method       |
| Eye Dam. 1; H318        | Calculation method       |
| Skin Sens. 1; H317      | Calculation method       |
| Aquatic Acute 1; H400   | 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.  |
| H302+H332 | Harmful if swallowed or if inhaled.  |
| 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.                                      |
| 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.                           |
| EUH032    | Contact with acids liberates very toxic gas.                               |

#### 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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*