

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

### 1.1 Product identifier

Trade name: Descaling Tablets  
UFI: C600-6054-500Q-5FDV

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

General use: For the removal of boiler scale

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

Company name: IBEDA-CHEMIE Klaus P. Christ GmbH  
Street/POB-No.: Am Eichelgärtchen 32  
Postal Code, city: 56283 Halsenbach  
Germany  
E-mail: info@ibeda-chemie.com  
Telephone: +49 (0)6747-9501-0  
Telefax: +49 (0)6747-9501-11  
Department responsible for information:  
Herr Schaper, Telephone: +49 (0)6747-9501-19  
(Only available during office hours.)  
Additional information: Source of supply, other:  
BSH Home Appliances Ltd.  
M50 Business Park  
IRL-Dublin 12 Ballymount  
Telephone: 01450 2655  
E-mail: mks-spares-ie@bshg.com

### 1.4 Emergency telephone number

**Poisons Information Centre of Ireland**  
**Telephone: 01 809 2566**  
**Transport:**  
**CONSULTANK Lutz Harder GmbH (Contract QUALI003)**  
**Telephone: +49 (178) 4337434 (from USA: 01149 178 4337434)**

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to EC regulation 1272/2008 (CLP)

Skin Irrit. 2; H315 Causes skin irritation.  
Eye Irrit. 2; H319 Causes serious eye irritation.  
Skin Sens. 1; H317 May cause an allergic skin reaction.  
STOT SE 3; H335 May cause respiratory irritation.

## 2.2 Label elements

### Labelling (CLP)



Signal word:

**Warning**

Hazard statements:

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

Precautionary statements:

P102 Keep out of reach of children.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P302+P352 IF ON SKIN: Wash with plenty of water/soap.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P313 IF exposed or concerned: Get medical advice/attention.

### Special labelling

Text for labelling:

Contains Maleic acid and Citric acid, anhydrous.

## 2.3 Other hazards

No risks worthy of mention.

Endocrine disrupting properties, Results of PBT and vPvB assessment:

No data available

## SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

### 3.2 Mixtures

Chemical characterisation: Mixture of the substances listed below with non-hazardous additions

Hazardous ingredients:

| Identifiers                                                      | Designation<br>Classification                                                                                                                                                                                       | Content   |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| REACH 01-2119457026-42-xxxx<br>EC No. 201-069-1<br>CAS 77-92-9   | Citric acid, anhydrous<br>Eye Irrit. 2; H319. STOT SE 3; H335.                                                                                                                                                      | 30 - 60 % |
| EC No. 203-742-5<br>CAS 110-16-7                                 | Maleic acid<br>Acute Tox. 4; H302. Acute Tox. 4; H312.<br>Skin Irrit. 2; H315. Eye Irrit. 2; H319.<br>Skin Sens. 1; H317. STOT SE 3; H335.<br>Specific concentration limits (SCL):<br>Skin Sens. 1; H317: C ≥ 0.1 % | 10 - 25 % |
| REACH 01-2119488633-28-xxxx<br>EC No. 226-218-8<br>CAS 5329-14-6 | Sulphamidic acid<br>Skin Irrit. 2; H315. Eye Irrit. 2; H319.<br>Aquatic Chronic 3; H412.                                                                                                                            | < 25 %    |

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

Additional information: Contains Sodium hydrogencarbonate. The maximum workplace exposure limits are, where necessary, listed in section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

|                         |                                                                                                                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General information:    | If medical advice is needed, have product container or label at hand.<br>Take off contaminated clothing and wash it before reuse.                                                                            |
| In case of inhalation:  | If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if problems persist.                                                  |
| Following skin contact: | Immediately clean with water and soap followed by thorough rinsing. In case of skin irritation, consult a physician.                                                                                         |
| After eye contact:      | Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently consult an ophthalmologist. |
| After swallowing:       | Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth immediately and drink plenty of water. Seek medical attention.                                                    |

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

May cause an allergic skin reaction. Causes skin irritation. Causes serious eye irritation.  
May cause respiratory irritation.

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

Treat symptomatically.  
Rinse mouth with water. Product reacts acidic.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:

Water spray jet, alcohol resistant foam, extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet

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

May form dangerous gases and vapours in case of fire.

Furthermore, there may develop: Nitrogen oxides (NO<sub>x</sub>), sulphur oxides, carbon monoxide and carbon dioxide.

### 5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Cool endangered containers with water spray and, if possible, remove from danger zone. Use water spray jet to knock down vapours.

Do not breathe fumes. Do not allow fire water to penetrate into surface or ground water. Firewater becomes acidic. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

## SECTION 6: Accidental release measures

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

Avoid generation of dust. Do not breathe dust.

If possible, eliminate leakage. Provide adequate ventilation.

Wear appropriate protective equipment. Keep unprotected people away.

Take off contaminated clothing and wash it before reuse.

### 6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains.

If necessary, notify appropriate authorities.

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

Avoid generation of dust.

Collect dry and place in appropriate containers for disposal. Subsequent cleaning.

To clean the floor and all object contaminated by this material, use water. Use soda or another alkaline detergent for removal of residues.

### 6.4 Reference to other sections

Refer additionally to section 8 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid generation of dust. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.

Have eye wash bottle or eye rinse ready at work place.

Precautions against fire and explosion:

Usual measures for fire prevention.

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

Requirements for storerooms and containers:

Keep container tightly closed and in a well-ventilated place.

Keep container dry. Keep only in the original container.

Protect from heat and direct sunlight.

Hints on joint storage:

Materials to avoid: Halogens, bases, acids, oxidizing agents (nitrates, nitrites, nitric acid), metals with water.

Keep away from food, drink and animal feedingstuffs.

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Occupational exposure limit values:

| Type             | Limit value                                                 |
|------------------|-------------------------------------------------------------|
| Ireland: 8 hours | 10 mg/m <sup>3</sup> (Dust limit value, inhalable fraction) |
| Ireland: 8 hours | 4 mg/m <sup>3</sup> (Dust limit value, respirable fraction) |

### 8.2 Exposure controls

Use acid-resistant materials and devices.

Inspect electric installations more frequently for corrosion damage.

Provide good ventilation and/or an exhaust system in the work area. Dust should be exhausted directly at the point of origin.

### Personal protection equipment

#### Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. Dust mask or Combination filter Use combination filter type A-(P3) according to EN 14387. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

Hand protection: Protective gloves according to I.S. EN ISO 374-1.  
Glove material: Nitrile rubber-Layer thickness: 0.11 mm.  
Breakthrough time: >480 min.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to I.S. EN ISO 16321-1.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:  
Avoid generation of dust. Do not breathe dust. Do not get in eyes, on skin, or on clothing.  
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place.

**Environmental exposure controls**

Refer to "6.2 Environmental precautions".

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

|                                                    |                          |
|----------------------------------------------------|--------------------------|
| Physical state at 20 °C and 101.3 kPa              | solid                    |
| Colour:                                            | Form: Tablets<br>white   |
| Odour:                                             | odourless                |
| Melting point/freezing point:                      | 132 - 135 °C             |
| Boiling point:                                     | No data available        |
| Flammability:                                      | No data available        |
| Lower and upper explosion limit:                   | Not applicable           |
| Flash point:                                       | > 100 °C                 |
| Auto-ignition temperature:                         | Not applicable           |
| Decomposition temperature:                         | > 135 °C                 |
| pH:                                                | at 20 °C, 10 g/L: 1.0    |
| Kinematic viscosity:                               | Not applicable           |
| Water solubility:                                  | at 80 °C: easily soluble |
| Partition coefficient n-octanol/water (log value): | No data available        |
| Vapour pressure:                                   | No data available        |
| Density:                                           | No data available        |
| Relative vapour density:                           | Not applicable           |
| Particle characteristics:                          | No data available        |

**9.2 Other information**

|                            |                   |
|----------------------------|-------------------|
| Explosive properties:      | No data available |
| Oxidizing characteristics: | No data available |
| Auto-ignition temperature: | No data available |

**SECTION 10: Stability and reactivity****10.1 Reactivity**

In aqueous solution: May be corrosive to metals.

## 10.2 Chemical stability

Stable under recommended storage conditions.

## 10.3 Possibility of hazardous reactions

No dangerous reactions with proper and specified storage and handling

At high temperatures, will react with alkali nitrites and nitrates as well as with other metal nitrates in explosive fashion and develop nitrogen.

The product develops hydrogen in an aqueous solution in contact with metals.

Reacts with alkalis with development of heat.

## 10.4 Conditions to avoid

Humidity. Keep away from heat sources, sparks and open flames.

Protect from direct sunlight.

## 10.5 Incompatible materials

Halogens, bases, acids, oxidizing agents (nitrates, nitrites, nitric acid), metals with water.

## 10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: > 135 °C

# SECTION 11: Toxicological information

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

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.

ATEmix (calculated): 2,000 mg/kg < ATE ≤ 5,000 mg/kg.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

ATEmix (calculated): > 2,000 mg/kg

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Irrit. 2; H315 = Causes skin irritation.

Serious eye damage/irritation: Eye Irrit. 2; H319 = Causes serious eye irritation.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Skin Sens. 1; H317 = May cause an allergic skin reaction.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): STOT SE 3; H335 = May cause respiratory irritation.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

## 11.2 Information on other hazards

Endocrine disrupting properties:

No data available

Other information:

A corrosive effect cannot be ruled out because of the pH value.

Information about Maleic acid:

LD50 Rat, oral: 708 mg/kg

LD50 Rabbit, dermal: 1,560 mg/kg

## Symptoms

In case of inhalation: Inhalation of dust may cause irritation of the respiratory system.

Other symptoms: Cough, shortage of breath. Pulmonary edema is possible.

Symptoms may occur with delay.

In case of ingestion:

Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Other symptoms: Abdominal pain, vomiting, burns.

After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

## SECTION 12: Ecological information

### 12.1 Toxicity

Aquatic toxicity:

Harmful effects on water organisms by modification of pH-value.

Before discharge into sewage plants the product normally needs to be neutralised.

Information about Sulphamidic acid:

Bacterial toxicity:

EC50 Activated sludge: &gt;200 mg/L/3h (OECD 209)

Algae toxicity:

EC50 *Desmodesmus subspicatus* (green algae): 48 mg/L/72h (OECD 201)NOEC *Desmodesmus subspicatus* (green algae): 18 mg/L/72h (OECD 201)

Daphnia toxicity:

EC50 *Daphnia magna* (Big water flea): 71.6 mg/L/48h (OECD 202)

Fish toxicity:

LC50 *Pimephales promelas* (fathead minnow): 70.3 mg/L/96h (OECD 203)

### 12.2 Persistence and degradability

Further details:

No data available

### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

No data available



## 12.6 Endocrine disrupting properties

No data available

## 12.7 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Waste key number: 20 01 14\* = Acids  
\* = Evidence for disposal must be provided.  
Recommendation: Special waste. Dispose of waste according to applicable legislation.

#### Package

Recommendation: Waste key number 150101 - Paper and cardboard packaging  
Waste key number 150102 - Plastic packaging: OPP  
Dispose of waste according to applicable legislation.  
Non-contaminated packages may be recycled.

## Section 14. Transport information

### 14.1 UN number or ID number

ADR/RID, IMDG, IATA-DGR:  
not applicable

### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:  
Not restricted

### 14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:  
not applicable

### 14.4 Packing group

ADR/RID, IMDG, IATA-DGR:  
not applicable

### 14.5 Environmental hazards

Dangerous for the environment:  
Substance/mixture is not environmentally  
hazardous according to the criteria of the UN  
model regulations.  
Marine pollutant: no

### 14.6 Special precautions for user

ADR, ADN, IMDG, IATA: No dangerous good in sense of these transport regulations.

## 14.7 Maritime transport in bulk according to IMO instruments

No data available

## SECTION 15: Regulatory information

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

#### National regulations - EC member states

Volatile organic compounds (VOC):

0 % by weight

#### Labelling of packaging with ≤ 125mL content



Signal word:

**Warning**

Hazard statements:

H317

May cause an allergic skin reaction.

H335

May cause respiratory irritation.

Precautionary statements:

P102

Keep out of reach of children.

P301+P310

IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P302+P352

IF ON SKIN: Wash with plenty of water/soap.

P304+P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308+P313

IF exposed or concerned: Get medical advice/attention.

Further regulations, limitations and legal requirements:

Use restriction according to REACH annex XVII, no.: 75

### 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

## SECTION 16: Other information

Classification procedure: Physical hazards: on basis of test data  
Health hazards, environmental hazards: calculation method

Wording of the H-phrases under paragraph 2 and 3:

H315 = Causes skin irritation.

H317 = May cause an allergic skin reaction.

H319 = Causes serious eye irritation.

H335 = May cause respiratory irritation.

H302 = Harmful if swallowed.

H312 = Harmful in contact with skin.

H412 = Harmful to aquatic life with long lasting effects.

Reason of change: Changes in section 1: Trade name, material number

Date of first version: 28/1/2008

Department issuing data sheet:

see section 1: Department responsible for information

## Abbreviations and acronyms:

Acute Tox.: Acute toxicity  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
Aquatic Chronic: Hazardous to the aquatic environment - chronic  
AS/NZS: Australian Standards/New Zealand Standards  
ATE: Acute toxicity estimate  
ATEmix: Acute Toxicity Estimate of mixture  
CAS: Chemical Abstracts Service  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level  
EC: European Community  
EC50: Effective Concentration 50%  
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods  
EN: European Standard  
EQ: Excepted quantities  
EU: European Union  
Eye Irrit.: Eye irritation  
IATA: International Air Transport Association  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IMDG Code: International Maritime Dangerous Goods Code  
IMO: International Maritime Organization  
LC50: Median lethal concentration  
LD50: Lethal dose 50%  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
NOEC: No Observed Effect Concentration  
OEL: Occupational Exposure Limit Value  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals  
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
Skin Irrit.: Skin irritation  
Skin Sens.: Skin sensitisation  
STOT SE: Specific target organ toxicity - single exposure  
TLV: Threshold Limit Value  
TRGS: Technical Rules for Hazardous Substances  
vPvB: Very persistent and very bioaccumulative  
WEL: Workplace Exposure Limit

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

Most recent product information is available at:  
<https://sumdat.net/1hk1iztc>

