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

1.1 Product identifier

Trade name: Descaling tablets for coffee machines

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
Dept. responsible for information:
Herr Dohmann, Telephone: +49 (0)6747-9501-16

1.4 Emergency telephone number

GIZ-Nord, Göttingen, Germany,
Telephone: +49 551-19240

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 Sulphamidic acid.

2.3 Other hazards

In aqueous solution, a corrosive effect cannot be ruled out because of the pH value.

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:

Ingredient	Designation	Content	Classification
REACH 01-2119457026-42-xxxx EC No. 201-069-1 CAS 77-92-9	Citric acid, anhydrous	30 - 60 %	Eye Irrit. 2; H319.
EC No. 203-742-5 CAS 110-16-7	Maleic acid	10 - 25 %	Acute Tox. 4; H302. Skin Irrit. 2; H315. Eye Irrit. 2; H319. Skin Sens. 1; H317. STOT SE 3; H335.
REACH 01-2119488633-28-xxxx EC No. 226-218-8 CAS 5329-14-6	Sulphamidic acid	10 - 25 %	Skin Irrit. 2; H315. Eye Irrit. 2; H319. Aquatic Chronic 3; H412.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: If victim is at risk of losing consciousness, position and transport on their side.

In case of inhalation: Provide fresh air. Put victim at rest. Seek medical treatment in case of troubles.
If breathing becomes irregular or ceases, apply rescue breathing or artificial respiration immediately, where required supply oxygen.

Following skin contact: After contact with skin, wash immediately with soap and plenty of water.
Change contaminated clothing. 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. Subsequently consult an ophthalmologist.

After swallowing: Never give anything by mouth to an unconscious person.
Rinse mouth with water. Drink large quantities of water.
Do not induce vomiting. 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.

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 fog, 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

In case of fire may be liberated: Nitrogen oxides (NOx), 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: Hazchem-Code: -

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. Fire water becomes acidic.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Avoid generation of dust. Do not breathe dust.

In case of dust formation: Provide adequate ventilation. Wear personal protection equipment.

6.2 Environmental precautions

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

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: Avoid contact with skin and eyes. Avoid generation of dust. Do not breathe dust. When using do not eat, drink or smoke.

In case of dust formation: Provide adequate ventilation, and local exhaust as needed.
Wear personal protection equipment.

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 dry. Store at room temperature.

Hints on joint storage: Do not store together with strong oxidizing agents or acids.
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
Great Britain: WEL-TWA	10 mg/m³ Dust limit value inhalable fraction
Great Britain: WEL-TWA	4 mg/m³ Dust limit value respirable fraction
Ireland: 8 hours	10 mg/m³ Dust limit value inhalable fraction
Ireland: 8 hours	4 mg/m³ Dust limit value respirable fraction

Additional information: TWA: 10 mg/m³ (inhalable dust)
TWA: 4 mg/m³ (respirable dust)

8.2 Exposure controls

Use acid resistant materials and devices.
Inspect electric installations more frequently for corrosion damage.
Provide fresh air. 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.

Hand protection: Protective gloves according to EN 374.
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 EN 166.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:

Avoid contact with skin and eyes.
Change contaminated clothing.
Provide a conveniently located eye rinse station.
When using do not eat or drink.
Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Form: solid, Tablets Colour: white
Odour:	odourless
Odour threshold:	No data available
pH value:	at 20 °C, 10 g/L: 1.0
Melting point/freezing point:	132 - 135 °C
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	> 100 °C
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	No data available
Water solubility:	at 80 °C: easily soluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	> 135 °C
Viscosity, kinematic:	No data available
Explosive properties:	No data available
Oxidizing characteristics:	No data available

9.2 Other information

Additional information: 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. Protect from excessive heat.

10.5 Incompatible materials

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

10.6 Hazardous decomposition products

In case of fire may be liberated: Nitrogen oxides (NOx), sulphur oxides, Carbon monoxide and carbon dioxide.

Thermal decomposition: > 135 °C

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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): 2000 mg/kg < ATE <= 5000 mg/kg.

Information about maleic acid:
LD50 Rat, oral: 708 mg/kg.
Harmful if swallowed.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

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

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.

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

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.

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.

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 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.

Contaminated packaging

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

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

Marine pollutant: no

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: -

No data available

National regulations - EC member states

Volatile organic compounds (VOC):

0 % by weight

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Further information

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

H302 = Harmful if swallowed.
H315 = Causes skin irritation.
H317 = May cause an allergic skin reaction.
H319 = Causes serious eye irritation.
H335 = May cause respiratory irritation.
H412 = Harmful to aquatic life with long lasting effects.

Reason of change: Changes in section 11: Toxicological information
Date of first version: 22/1/2015

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

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:
http://sumdat.net/36ghs29w