

1. Identification of the substance/mixture and of the company/undertaking

Product identifier

Trade name: Descaling Tablets

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

General use: For the removal of boiler scale

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: DE-56283 Halsenbach

E-mail: info@ibeda-chemie.com

Telephone: +49 (0)6747-9501-0

Telefax: +49 (0)6747-9501-11

Department responsible for information:

Herr Christ, Telephone: +49 (0)6747-95010 (Only available during office hours.)

Additional information: Source of supply, other:

BSH Hausgeräte Service GmbH
Werkskundendienst für Hausgeräte
Leopoldstrasse 252
D-80807 München
E-mail: spareparts@bshg.com
Telephone: 089 20 355 777

Emergency telephone number

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

2. Hazards identification

Classification of the substance or mixture

GHS classification

Skin Irrit. 2 Causes skin irritation.

Eye Irrit. 2A Causes serious eye irritation.

Skin Sens. 1 May cause an allergic skin reaction.

STOT SE 3 May cause respiratory irritation.

Label elements



Signal word:

Warning

Hazard statements:

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

Precautionary statements:

Keep out of reach of children.

Wash hands thoroughly after handling.

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

Call a POISON CENTER/doctor if you feel unwell.

Store locked up.

Dispose of contents to hazardous or special waste collection point.

3. Composition/information on ingredients

Mixtures

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

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 77-92-9	Citric acid, anhydrous	45 - 55 %	Eye Irrit. 2A.
CAS 110-16-7	Maleic acid	15 - 25 %	Acute Tox. 4 (oral). Acute Tox. 4 (dermal). Skin Irrit. 2. Eye Irrit. 2A. Skin Sens. 1. STOT SE 3.
CAS 5329-14-6	Sulphamidic acid	10 - 20 %	Skin Irrit. 2. Eye Irrit. 2A. Aquatic Chronic 3.

4. 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.
Take off contaminated clothing and wash it before reuse. In case of skin reactions, 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.
Rinse mouth with water. Drink large quantities of water.
Do not induce vomiting. Seek medical attention.

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.

Other symptoms: cough, shortage of breath. Pulmonary edema is possible. Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Abdominal pain, vomiting, burns.

Symptoms may occur with delay.

Indication of any immediate medical attention and special treatment needed

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

5. Firefighting measures**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

Special hazards arising from the substance or mixture

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

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.
Fire water becomes acidic.

6. Accidental release measures**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. Take off contaminated clothing and wash it before reuse.

Environmental precautions

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

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.

7. Handling and storage**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. Take off contaminated clothing and wash it before reuse. Provide a conveniently located eye rinse station.

Precautions against fire and explosion:

Usual measures for fire prevention.

Storage

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.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limit values:

Type	Limit value
USA: ACGIH: TWA	10 mg/m ³ (Dust limit value, inhalable fraction)
USA: ACGIH: TWA	3 mg/m ³ (Dust limit value, respirable fraction)

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.

See also information in chapter 7, section storage.

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 JIS T 8116:2005.
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 JIS T 8147:2003.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:

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

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance: Physical state at 20 °C and 101.3 kPa: solid
Form: Tablets
Colour: white/blue

Odour: odourless

Odour threshold: No data available

pH: at 20 °C, 10 g/L: 1.0

Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	Not applicable
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
Thermal decomposition:	No data available

Additional information

Viscosity:	No data available
Additional information:	No data available

10. Stability and reactivity

Reactivity:	In aqueous solution: May be corrosive to metals.
Chemical stability:	Stable under recommended storage conditions.
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.
Conditions to avoid:	humidity. Protect from excessive heat.
Incompatible materials:	halogens, bases, oxidizing agents (nitrates, nitrites, nitric acid), metals with water.
Hazardous decomposition products:	No hazardous decomposition products when regulations for storage and handling are observed.
Thermal decomposition:	No data available

11. Toxicological information

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. May be harmful if swallowed. ATEmix calculated: $2,000 < ATE \leq 5,000$ Acute toxicity (dermal): Based on available data, the classification criteria are not met. ATEmix calculated: $> 5,000$ Acute toxicity (inhalative): Lack of data. Skin corrosion/irritation: Skin Irrit. 2 = Causes skin irritation. Serious eye damage/irritation: Eye Irrit. 2A = Causes serious eye irritation. Sensitisation to the respiratory tract: Lack of data. Skin sensitisation: Skin Sens. 1 = 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 = 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

Other symptoms: cough, shortage of breath. Pulmonary edema is possible. Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Abdominal pain, vomiting, burns.

Symptoms may occur with delay.

12. Ecological information

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.
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Persistence and degradability

Further details:	No data available
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Mobility in soil

No data available

Additional ecological information

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

Waste treatment methods

Product

Recommendation: Special waste. Dispose of waste according to applicable legislation.

Package

Recommendation: Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR:

not applicable

Land transport (ADR/RID)

Product designation: Not restricted

Sea transport (IMDG)

Proper shipping name: Not restricted

Marine pollutant: no

Air transport (IATA)

Proper shipping name: Not restricted

Further information

No dangerous good in sense of these transport regulations.

15. Regulatory information

Further regulations, limitations and legal requirements

No data available

16. Other information

Text for labelling: Contains maleic acid.

Abbreviations and acronyms:

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
OEL: Occupational Exposure Limit Value
AS/NZS: Australian Standards/New Zealand Standards
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
EN: European Standard
IATA: International Air Transport Association
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
STOT SE: Specific target organ toxicity - single exposure
TLV: Threshold Limit Value
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit

Reason of change: Changes in section 1.3: Department responsible for information

Date of first version: 6/17/2019

Department issuing data sheet

Contact person: see section 1: Department responsible for information

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/5k6bneb6>

