

Boiler Treat Ultra Descaler

Safety Data Sheet

SECTION 1: Identification

1.1 Product identifier

Product name Boiler Treat Ultra Descaler
Product number 309
Brand KURITA SX-1282

Recommended use of the chemical and restrictions on use

Lime and Scale Remover

Supplier's details

Name: **KURITA-GK-CHEMICAL CO.LTD**

Address Office :

TCH-Harderwijk. Wouterskampen 34,
3849BB Hierden. Netherlands. (Eroupe)
<http://www.kurita-gk-chemical.com/>

Emergency : <http://www.kurita-gk-chemical.com/>

SECTION 2: Hazard identification

Classification of the substance or mixture

GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)

- Eye damage/irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1B
- Eye damage/irritation, Cat. 2A
- Skin corrosion/irritation, Cat. 2
- Eye damage/irritation, Cat. 2A
- Long-term hazards to the aquatic environment, Cat. 3

GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage
H315 Causes skin irritation
H318 Causes serious eye damage
H319 Causes serious eye irritation

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H412

Harmful to aquatic life with long lasting effects

Precautionary statement(s)

P260

Do not breathe dust/fume/gas/mist/vapors/spray.

P264

Wash ... thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P280

Wear 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/shower.

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.

P310

Immediately call a POISON CENTER/doctor/...

P321

Specific treatment (see ... on this label).

P363

Wash contaminated clothing before reuse.

P405

Store locked up.

P501

Dispose of contents/container to ...

P337+P313

If eye irritation persists: Get medical advice/attention.

P280

Wear protective gloves.

P302+P352

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

P332+P313

If skin irritation occurs: Get medical advice/attention.

P362+P364

Take off contaminated clothing and wash it before reuse.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components (Liquid/ Powder)

Component	Concentration
Phosphoric acid (CAS no.: 7664-38-2; EC no.: 231-633-2; Index no.: 015-011-00-6) CLASSIFICATIONS: Skin corrosion/irritation, Cat. 1B. HAZARDS: H314 - Causes severe skin burns and eye damage.	70 - 80 % (weight)
Citric acid (CAS no.: 77-92-9; EC no.: 201-069-1) CLASSIFICATIONS: Eye damage/irritation, Cat. 2A. HAZARDS:	10 - 20 % (weight)
Sulphamic acid (CAS no.: 5329-14-6; EC no.: 226-218-8; Index no.: 016-026-00-0) CLASSIFICATIONS: Skin corrosion/irritation, Cat. 2; Serious eye damage/eye irritation, Cat. 2; Hazardous to the aquatic environment, long-term (chronic), Cat. 3. HAZARDS: H315 - Causes skin irritation; H319 - Causes serious eye irritation; H412 - Harmful to aquatic life with long lasting effects.	10 - 15 % (weight)

Trade secret statement (OSHA 1910.1200(i))

*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled

Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give Cardiopulmonary Resuscitation (CPR) if there is no breathing AND no pulse. Obtain medical attention IMMEDIATELY.

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In case of skin contact	Wash with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Consult a physician if necessary.
In case of eye contact	Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY. Do not transport victim until the recommended flushing period is completed unless flushing can be continued during transport.
If swallowed	Rinse mouth. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call a poison center or doctor if you feel unwell. Acute and delayed symptoms and effects: Harmful if swallowed. May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Most important symptoms/effects, acute and delayed

IMMEDIATE CONCERNS: CAUTION: May cause eye or skin burns. Avoid vapor.

POTENTIAL SIDE EFFECTS

EYES: Tissue destruction and permanent eye damage may occur if not treated immediately.

SKIN: May be corrosive and cause severe burns.

INGESTION: Corrosive to mucous membranes of the mouth, esophagus, stomach & throat.

INHALATION: Avoid mist, can be a severe irritant.

ACUTE TOXICITY: Eye, skin, lung burning may be caused with exposure to mist. Avoid mist.

TARGET ORGAN STATEMENT: Contains material which may cause damage to gastrointestinal tract and respiratory tract.

Indication of immediate medical attention and special treatment needed, if necessary

Note to Physician: All treatments should be based on observed signs and symptoms of distress in the patient. Medical conditions that may be aggravated by exposure include asthma, bronchitis, emphysema and other lung diseases and chronic nose, sinus or throat conditions. Severity of the burn is generally determined by the concentration of the solution and the duration of exposure. In the event of skin or eye contact, immediate and thorough flushing is essential. Continued washing of the affected area with cold or iced water will be helpful in removing the last traces of sulfuric acid. Cream or ointments should not be applied before or during the washing phase of the treatment. See section 2 for further details.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Citric acid: Carbon oxides

Special protective actions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Further information

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Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection if necessary. Avoid breathing gas, mist, vapors, or spray. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Environmental precautions

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

Methods and materials for containment and cleaning up

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. For Large Spills: Flush spill area with water spray. Prevent run-off from entering drains, sewers, or streams, collect run-off.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Wash contaminated clothing before reuse. Wash face, hands, and any exposed skin thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Store locked up. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

Incompatible Materials: Sulfides. sulfites. Strong bases.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

Control parameters

1. Phosphoric acid (CAS: 7664-38-2 EC: 231-633-2)

PEL (Inhalation): 1 mg/m³; USA (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 1 mg/m³, (ST) 3 mg/m³; USA (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 1 mg/m³, (ST) 3 mg/m³; USA (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

TLV® (Inhalation): 1 mg/m³, (ST) 3 mg/m³; USA (ACGIH)
OSHA Annotated Table Z-1, www.osha.gov

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Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Pictograms



Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Skin Protection: None required with normal household use. Industrial Setting: Protective gloves (for hands) and protective clothing are required where repeated or prolonged skin contact may occur.

Body protection

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Ensure adequate ventilation, especially in confined areas. Under normal conditions, respirator is not normally required.

Thermal hazards

No data available.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Liquid/ Powder
Odor	Fruity
Odor threshold	No data available.
pH	< 1.5
Melting point/freezing point	No data available.
Initial boiling point and boiling range	>100 °C / 212 °F
Flash point	None
Evaporation rate	No data available.
Flammability (solid, gas)	Liquid-not applicable
Upper/lower flammability limits	No data available.
Vapor pressure	No data available.
Vapor density	3.4
Relative density	> 1
Solubility(ies)	Insoluble
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.

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Viscosity	No data available.
Explosive properties	N/A
Oxidizing properties	No data available.

Other safety information

No data available.

SECTION 10: Stability and reactivity

Reactivity

Contact with incompatible materials.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Reacts with some bases.

Conditions to avoid

Keep out of reach of children. Keep away from extreme heat and extreme cold.

Incompatible materials

Phosphoric acid : Strong bases, Powdered metals

Citric acid: Oxidizing agents, Bases, Reducing agents, Nitrates

Hazardous decomposition products

Phosphoric acid : Hazardous decomposition products formed under fire conditions. - Oxides of phosphorus

Other decomposition products - No data available

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Citric acid

LD50 Oral - Rat - 5,400 mg/kg

Citric acid

LD50 Skin - Rabbit - > 2,000 mg/kg

Skin corrosion/irritation

Citric acid

LC50 - Rabbit - Result: Mild skin irritation

Serious eye damage/irritation

Citric acid

- Rabbit - Result: Irritating to eyes.

Respiratory or skin sensitization

Not Applicable

Germ cell mutagenicity

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Carcinogenicity

Not classifiable as a human carcinogen.

Reproductive toxicity

No data available.

STOT-single exposure

Not Applicable

STOT-repeated exposure

Not Applicable

Aspiration hazard

Not Applicable

SECTION 12: Ecological information

ToxicityPhosphoric Acid (CAS-No. 7664-38-2)

Fish Acute and Prolonged Toxicity

LC50, blue gill (LEPOMIS macrochirus), 96H; 820-1490 mg/L

LC50 rainbow trout (oncorhynchus mykiss), 96 H; 1700 mg/L

Aquatic invertebrate acute toxicity

LC50, water flea daphnia magna; 835 mg/L

EC50, water flea daphnia magna, immobilization; 1600-25 mg/L

LC50, grass shrimp (palaemonetes pugio), static, 96 H; 5.4 mg/L

LC 50 common shrimp (Crangon crangon, static, 96H; 550-950 mg/L

Aquatic Plant Toxicity

EC50, green algae Selenastrum capricornutum, biomass growth inhibition, 72H; 911 mg/L

Toxicity to microorganisms

LC50. Bacteria; >1000 mg/L

Citric Acid (CAS-No. 77-92-9)

LC50, blue gill (LEPOMIS macrochirus), 96H; 1516 mg/L

EC50, water flea daphnia magna, immobilization, 48H; 2600 mg/L

Persistence and degradability

There is no data available on the preparation itself

Bioaccumulative potential

Not Measured

Mobility in soil

No data available.

Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

Other adverse effects

No data available.

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SECTION 13: Disposal considerations

Disposal of the product

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Disposal of contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14: Transport information

DOT (US)

UN/ID No UN3264

Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid)

Hazard Class 8

Subsidiary Hazard Class III

IMDG

UN/ID No UN3264

Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid)

Hazard Class 8

Packing Group III

Marine Pollutant: No

IATA

UN/ID No UN3264

Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid)

Hazard Class 8

Packing Group III

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Massachusetts Right To Know Components

Phosphoric acid

CAS number: 7664-38-2

New Jersey Right To Know Components

Phosphoric acid CAS number: 7664-38-2	Citric acid CAS-No. 77-92-9	Sulphamic acid CAS number: 5329-14-6
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Pennsylvania Right To Know Components

Phosphoric acid CAS number: 7664-38-2	Citric acid CAS-No. 77-92-9
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SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

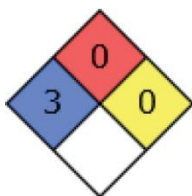
SARA 313 Components

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

HMIS Rating

Boiler Treat Ultra Delimer Descaler	
HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.