

# Safety Data Sheet

## According to SS586:2014

Clorox Automatic Toilet Bowl Cleaner<sub>1</sub>

Version 1.0

Issue date: 10/10/2014

Revision date: 10/10/2014

SDS Record Number: CSSS-TCO-010-115550

### Section 1 Identification of the substance/mixture and of the company/undertaking

#### Product identifier:

Identification on the label/Trade name: Clorox Automatic Toilet Bowl Cleaner<sub>1</sub>  
Additional identification: Not available  
Identification of the product: See section 3  
Index Number: Not available  
REACH registration No.: Not available

#### Relevant identified uses of the substance and uses advised against:

##### Identified uses:

Cleaning agent Biocidal product Bathroom.

##### Uses advised against:

Not available.

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

Supplier(Manufacturer): The Clorox Company  
Address: 1221 Broadway. Oakland, CA 94612. USA  
Contact person(E-mail): -  
Telephone: 1-510-271-7000  
Fax: -

#### Emergency telephone Number:

For Medical Emergencies call: 1-800-446-1014

Transportation Emergencies, call Chemtrec: 1-800-424-9300

Available outside office hours? YES  NO

### Section 2 Hazards Identification

#### Classification of the substance/mixture:

<b>GHS Classification</b>	Oxidizing solids	Category 2
	Corrosive to metals	Category 1
	Acute toxicity - Oral	Category 4
	Skin corrosion/irritation	Category 1
	Skin sensitization	Category 1
	Serious eye damage/eye irritation	Category 1
	Acute toxicity - Inhalation (Gases)	Category 4
	Reproductive toxicity	Category 1B
	hazardous to the aquatic environment- ACUTE	Category 1

#### label elements:

**Hazard Pictograms:**



**Signal Word(S):**

Danger

**Hazard Statement:**

May intensify fire; oxidizer  
May be corrosive to metals  
Harmful if swallowed  
Causes severe skin burns and eye damage  
May cause an allergic skin reaction  
Causes serious eye damage  
Harmful if inhaled  
May damage fertility or the unborn child  
Very toxic to aquatic life

**Precautionary statement:**

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
Keep/Store away from clothing/.../combustible materials.  
Take any precaution to avoid mixing with combustibles/...  
Keep only in original container.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing should not be allowed out of the workplace  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Use personal protective equipment as required.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.  
Rinse skin with water/shower. Wash with plenty of soap and water.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF exposed or concerned: Get medical advice/attention.  
Immediately call a POISON CENTER or doctor/physician.  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
In case of fire: Use water, CO2 or Halon for extinction.  
Absorb spillage to prevent material damage.

Collect spillage.  
Store locked up.  
Store in corrosive resistant container with a resistant inner liner.  
Dispose of contents/container in according with local regulation.

**Other hazards:**

Not available.

### Section 3 Composition/information on ingredients

**Substance/Mixture:** Mixture

**Ingredient(s):**

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl-	N/A	16079-88-2	240-230-0	40 – 70%
1,3-Dichloro-5,5-dimethyl hydantoin	N/A	118-52-5	204-258-7	15 – 40%
Boric acid (H3BO3)	N/A	10043-35-3	233-139-2	15 – 40%
2,4-Imidazolidinedione, 1,3-dichloro-5-ethyl-5-methyl-	N/A	89415-87-2	401-570-7	0-10%

### Section 4 First aid measures

**Description of first aid measures:**

In all cases of doubt, or when symptoms persist, seek medical attention.

**In case of inhalation:**

Move to fresh air. If not breathing, give artificial respiration. Administer oxygen if breathing is difficult and you are trained.

**In case of skin contact:**

Wash off immediately with soap and plenty of water for at least 15 minutes. IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. If skin irritation persists, call a physician. For severe burns, immediate medical attention is required.

**In case of eyes contact:**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Seek immediate medical attention/advice. Remove contact lenses, if applicable, and continue flushing.

**In case of ingestion:**

Do NOT induce vomiting. Rinse mouth. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

**Most important symptoms and effects, both acute and delayed:**

Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage.  
Harmful if inhaled. May damage fertility or the unborn child.

**Indication of any immediate medical attention and special treatment needed:**

Treat symptomatically. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. May cause sensitization of susceptible persons.

## Section 5 Fire-Fighting measures

### Extinguishing media:

**Suitable extinguishing media:** Use water, CO2 or Halon.

**Unsuitable extinguishing media:** Do not use dry chemicals or foams.

### Special hazards arising from the substance or mixture

These substances will accelerate burning when involved in a fire. Some may decompose explosively when heated or involved in a fire. May ignite combustibles (wood paper, oil, clothing, etc.). Runoff may create fire or explosion hazard.

### Special fire fighting methods and special protective actions for fire-fighters:

Do not move cargo or vehicle if cargo has been exposed to heat. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor; if this is impossible, withdraw from area and let fire burn.

## Section 6 Accidental release measures

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

**For non-emergency personnel:** Corrosive material. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid dust formation. Do not breathe dust ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**For emergency responders:** Wear an appropriate NIOSH/MSHA approved respirator if dust is generated.

### Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

### Methods for Containment and Cleaning up:

Prevent further leakage or spillage if safe to do so. Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain. With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Dike far ahead of liquid spill for later disposal. Following product recovery, flush area with water.

### Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

### Additional information:

Not applicable.

## Section 7 Handling and storage

### Precautions for safe handling:

**Protective measures:** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Avoid dust formation. Fine dust dispersed in air may ignite. Wear personal protective equipment. Keep away from heat, sparks and open flame. No smoking. Do not

breathe dust.

**Advice on general occupational hygiene:**

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

**Conditions for safe storage, including any incompatibilities:**

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials. Keep away from heat and sources of ignition. Keep in properly labeled containers. Do not store near combustible materials. Store in accordance with the particular national regulations Store in accordance with local regulations.

**Specific end use(s):**

Not applicable.

**Section 8 Exposure Controls/Personal Protection**

**Control parameters:**

**OCCUPATIONAL EXPOSURE LIMITS (OEL)**

**INGREDIENT DATA:**

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US ACGIH Threshold Limit Values (TLV)	1,3-Dichloro-5,5-dimethyl hydantoin	1,3-Dichloro-5,5-dimethyl hydantoin	0.2mg/m <sup>3</sup>	0.4mg/m <sup>3</sup>	Not Available	TLV® Basis: URT irr
US ACGIH Threshold Limit Values (TLV)	Boric acid (H3BO3)	Boric acid (H3BO3)	2mg/m <sup>3</sup>	6mg/m <sup>3</sup>	Not Available	TLV® Basis: URT irr

**EMERGENCY LIMITS:**

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
Clorox Automatic Toilet Bowl Cleaner	Not Available	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl-	Not Available	Not Available
1,3-Dichloro-5,5-dimethyl hydantoin	Unknown mg/m <sup>3</sup> / Unknown ppm	5 mg/m <sup>3</sup>
Boric acid (H3BO3)	Not Available	Not Available
2,4-Imidazolidinedione, 1,3-dichloro-5-ethyl-5-methyl-	Not Available	Not Available

**Exposure controls:**

**Appropriate engineering controls:**

Use in a well-ventilated area.

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:**

Face-shield.

**Hand protection:**

Wear protective gloves.

**Body protection:**

Wear protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves. Antistatic boots.

**Respiratory protection:**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Thermal hazards:**

Wear suitable protective clothing to prevent heat.

**Environmental exposure controls:**

Avoid discharge into the environment.

According to local regulations, Federal and official regulations.

**Section 9 Physical and chemical properties**

**Information on basic physical and chemical properties:**

Product name: Clorox Automatic Toilet Bowl Cleaner,  
Version #: 1.0 Issue date: 10-10-2014. Revision date: 10-10-2014.

<b>Appearance:</b>	Solid
<b>Colour:</b>	White
<b>Odour:</b>	Slight chlorine
<b>Odour threshold:</b>	Not available
<b>pH:</b>	Not available
<b>Melting point/range (°C):</b>	Not available
<b>Boiling point/range (°C):</b>	Not available
<b>Flash point (°C):</b>	Not available
<b>Evaporation rate:</b>	Not available
<b>Flammability limit - lower (%):</b>	Not available
<b>Flammability (solid, gas):</b>	Not available
<b>Ignition temperature (°C):</b>	Not available
<b>Upper/lower flammability/explosive limits:</b>	Not available
<b>Vapour pressure (20°C):</b>	Not available
<b>Vapour density:</b>	Not available
<b>Density:</b>	Not available
<b>Bulk density (kg/m<sup>3</sup>):</b>	Not available
<b>Water solubility (g/l):</b>	Liquid
<b>n-Octanol/Water (log Po/w):</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	Not available
<b>Viscosity, dynamic (mPa.s):</b>	Not available
<b>Explosive properties:</b>	Not available
<b>Oxidising properties:</b>	Not available
<b>Molecular Formula:</b>	Not available
<b>Molecular Weight:</b>	Not available
<b>Other information:</b>	
<b>Fat solubility(solvent– oil to be specified) etc:</b>	Not available
<b>Surface tension:</b>	Not available
<b>Dissociation constant in water( pKa):</b>	Not available
<b>Oxidation-reduction Potential:</b>	Not available
<b>Specific gravity:</b>	Not available

## Section 10 Stability and reactivity

<b>Reactivity:</b>	The substance is stable under normal storage and handling conditions.
<b>Chemical stability:</b>	Stable at room temperature in closed containers under normal storage and handling conditions.
<b>Possibility of hazardous reactions:</b>	No dangerous reactions known.
<b>Conditions to avoid:</b>	Incompatible materials. Exposure to air or moisture over prolonged periods. Excessive heat. Heat, flames and sparks. Incompatible products. Heating in air. Dust formation.
<b>Incompatible materials:</b>	Acids. Bases. Oxidizing agents. Organic material. Combustible materials.

**Hazardous decomposition products:** Hydrocarbons.  
Carbon oxides.

## Section 11 Toxicological information

### Toxicokinetics, metabolism and distribution:

**Non-human toxicological data:** Not available

### Information on toxicological effects:

#### Acute toxicity:

Boric acid (H3BO3) (CAS#10043-35-3)

**LD50(Oral, Rat):** 2660 mg/kg

**LD50(Dermal, Rabbit):** > 2000 mg/kg bw

**LC50(Inhalation, Rat):** > 0.16 mg/L 4 h

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

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

**Respiratory or skin sensitization:** May cause an allergic skin reaction

**Germ cell mutagenicity:** Not classified

**Carcinogenicity:** Not classified

**Reproductive toxicity:** May damage fertility or the unborn child

**STOT- single exposure:** Not classified

**STOT-repeated exposure:** Not classified

## Section 12 Ecological information

### Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
EC50	N/A	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

**Persistence and degradability:** Not available.

**Bioaccumulative potential:** Not available.

**Mobility in soil:** The product is practically insoluble in water.

**Results of PBT&vPvB assessment:** Not available.

**Other adverse effects:** Not available.

## Section 13 Disposal considerations

**Waste treatment methods:** The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.

**Product / Packaging disposal:** If empty container retains product residues, all label precautions must be observed.  
Return for reuse or dispose according to national or local regulations.

## Section 14 Transport information

	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
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<b>UN-Number</b>	1479	1479	1479
<b>UN Proper shipping name</b>	OXIDIZING SOLID, N.O.S. (2,4-IMIDAZOLIDINEDIONE, 1,3-DICHLORO-5-ETHYL-5-ME THYL-)	OXIDIZING SOLID, N.O.S. (2,4-IMIDAZOLIDINEDIONE, 1,3-DICHLORO-5-ETHYL-5-ME THYL-)	OXIDIZING SOLID, N.O.S. (2,4-IMIDAZOLIDINEDIONE, 1,3-DICHLORO-5-ETHYL-5-ME THYL-)
<b>Transport hazard Class</b>	5.1	5.1	5.1
<b>Packaging group</b>	II	II	II
<b>Environmental hazards</b>	Yes	Yes	Yes
<b>Special precautions for user</b>	See section 2.2	See section 2.2	See section 2.2
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	IBC08	IBC08	IBC08

## Section 15 Regulation information

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

<b>1-bromo-3-chloro-5,5-dimethyl- (16079-88-2) is found on the following regulatory lists</b>	"Singapore Permissible Exposure Limits of Toxic Substances"
<b>1,3-Dichloro-5,5-dimethyl hydantoin (118-52-5) is found on the following regulatory lists</b>	"Singapore Permissible Exposure Limits of Toxic Substances"
<b>Boric acid (H3BO3) (10043-35-3) is found on the following regulatory lists</b>	"International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs"
<b>2,4-Imidazolidinedione, 1,3-dichloro-5-ethyl-5-methyl- (89415-87-2) is found on the following regulatory lists</b>	Not available.

## Section 16 Other information

### Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

### Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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