

SAFETY DATA SHEET

Revision Date 26-Jun-2015

Version 1

1. IDENTIFICATION

Product identifier

Product Name BIOGUARD SMART SHOCK

Other means of identification

Product Code 2814
UN/ID no. UN1759

Recommended use of the chemical and restrictions on use

Recommended Use Swimming Pool Product.
Uses advised against Do not mix with other chemicals

Details of the supplier of the safety data sheet

Supplier Address
KIK HOLDCO COMPANY INC.
33 MacIntosh Blvd,
Concord, ON L4K 4L5
1-888-640-7946

Emergency telephone number

Emergency Telephone Canutec (Transportation) 1-613-996-6666 (Call Collect)
Poison Control Center (Medical) : (877) 800-5553

2. HAZARDS IDENTIFICATION

Classification

This mixture is classified as hazardous according to the Global Harmonized System (GHS)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1 Sub-category C
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

Causes severe skin burns and eye damage
Suspected of damaging fertility or the unborn child
May cause respiratory irritation
Harmful if swallowed
Harmful in contact with skin



Color blue

Physical state Solid

Odor Chlorine

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician
 Call a POISON CENTER or doctor/physician if you feel unwell
 Wash contaminated clothing before reuse
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a POISON CENTER or doctor/physician
 Call a POISON CENTER or doctor/physician if you feel unwell
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information**3. COMPOSITION/INFORMATION ON INGREDIENTS****Mixture**

Chemical Name	CAS No.	Weight-%
Sodium Dichloro-S-Triazinetrione	2893-78-9	63.05
Boron sodium oxide (B ₄ Na ₂ O ₇), pentahydrate	12179-04-3	3 - 5
aluminium sulfate	10043-01-3	3 - 5

4. FIRST AID MEASURES**Description of first aid measures****General advice**

If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician.

Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Artificial respiration and/or oxygen may be necessary. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Call a physician immediately.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Flood fire area with water from a distance.

Unsuitable extinguishing media Do not use dry chemicals, carbon dioxide, or halogenated extinguishing agents.

Specific hazards arising from the chemical

Do not let the fire burn. Thermal decomposition can lead to release of toxic/corrosive gases and vapors. Wet material may generate nitrogen trichloride, an explosion hazard.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Do not add water to spilled material. Using clean dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean dry containers for disposal. Do not close containers containing wet or damp material. They should be left open to disperse any hazardous gases that may form.

Methods for cleaning up Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp

to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Do not use floor sweeping compounds to clean up spills. Do not transport wet or damp material. Contact supplier in Section 1 for instructions, especially for damp or contaminated material.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation. Wash thoroughly after handling. Use only in well-ventilated areas. Do not mix with other chemicals.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Protect from moisture.

Incompatible materials

Incompatible with strong acids and bases. Ammonia. Calcium hypochlorite. Combustible material. Do not mix with other swimming pool/spa chemicals in their concentrated forms. Reducing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Boron sodium oxide (B ₄ Na ₂ O ₇), pentahydrate 12179-04-3	STEL: 6 mg/m ³ inhalable fraction TWA: 2 mg/m ³ inhalable fraction	(vacated) TWA: 10 mg/m ³	TWA: 1 mg/m ³
aluminium sulfate 10043-01-3	-	(vacated) TWA: 2 mg/m ³ Al Aluminum	TWA: 2 mg/m ³ Al

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear protective gloves and protective clothing.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular

cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid	Odor	Chlorine
Appearance	granules	Odor threshold	No information available
Color	blue		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	4.6 - 4.8	in 1% Solution
Melting point/freezing point	272 °C / 522 °F	Decomposes on heating
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	No information available	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Density	1.02 - 1.04	g/cm3
Bulk density	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight. Protect from moisture. Do not mix with other chemicals.

Incompatible materials

Incompatible with strong acids and bases. Ammonia. Calcium hypochlorite. Combustible material. Do not mix with other swimming pool/spa chemicals in their concentrated forms. Reducing agent.

Hazardous Decomposition Products

Chlorine gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	Irritating to respiratory system.
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Eye contact	Severely irritating to eyes. Risk of serious damage to eyes. Causes burns.
Skin contact	Irritating to skin. Contact with moist skin may cause skin burns. Harmful in contact with skin.
Ingestion	Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Dichloro-S-Triazinetrione 2893-78-9	= 735 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	0.27 - 1.17 mg/L (Rat, dust) 4 h
Boron sodium oxide (B4Na2O7), pentahydrate 12179-04-3	= 2403 mg/kg (Rat)	-	-
aluminium sulfate 10043-01-3	= 1930 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity This product contains a boron compound. This boron compound when fed to test animals at very high doses has shown reproductive and developmental toxicity. When this product is used according to label directions, the boron compound in this product does not represent a practical risk to humans.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic toxicity No information available.

Target Organ Effects Eyes, Respiratory system, Skin.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (inhalation-dust/mist)	19.8 mg/l
Oral LD50	581 mg/kg (rat)
Dermal LD50	> 2000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects

4.73% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium Dichloro-S-Triazinetrione 2893-78-9	-	0.25 - 1: 96 h Lepomis macrochirus mg/L LC50 static 0.207 - 0.389: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.176 - 0.267: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.29: 96 h Oncorhynchus mykiss mg/L LC50 0.13 - 0.36: 96 h Oncorhynchus mykiss mg/L LC50 static	0.00018 - 0.00021: 48 h Daphnia magna mg/L EC50 0.093 - 0.16: 48 h Daphnia magna mg/L EC50
aluminium sulfate 10043-01-3	-	100: 96 h Carassius auratus mg/L LC50 37: 96 h Gambusia affinis mg/L LC50 static	136: 15 min Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes**

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

Contaminated packaging

Do not reuse container. Refer to all federal, state and local regulations prior to disposal of container and unused contents by reuse, recycle or disposal.

14. TRANSPORT INFORMATION**Note:**

Limited quantity (LQ) exception is possible Limited quantity (LQ) exception is possible

DOT

UN/ID no.	UN1759
Proper shipping name	Corrosive solids, n.o.s. (Sodium dichloro-s-triazinetrione, Copper Compounds)
Hazard Class	8
Packing Group	III
Description	UN1759, Corrosive solids, n.o.s. (Sodium dichloro-s-triazinetrione, Copper Compounds), 8, III
Emergency Response Guide Number	154

TDG

UN/ID no.	UN1759
Proper shipping name	Corrosive solid, n.o.s. (Sodium dichloro-s-triazinetrione, Copper Compounds)
Hazard Class	8
Packing Group	III
Description	UN1759, Corrosive solid, n.o.s. (Sodium dichloro-s-triazinetrione, Copper Compounds), 8, III

IATA

UN/ID no.	UN1759
Proper shipping name	Corrosive solid, n.o.s. (Sodium dichloro-s-triazinetrione, Copper Compounds)
Hazard Class	8
Subsidiary hazard class	III
Description	UN1759, Corrosive solid, n.o.s. (Sodium dichloro-s-triazinetrione, Copper Compounds), 8, III

IMDG

UN/ID no.	UN1759
Proper shipping name	Corrosive solid, n.o.s. (Sodium dichloro-s-triazinetrione, Copper Compounds)
Hazard Class	8
Packing Group	III
EmS-No.	F-A, S-B
Description	UN1759, Corrosive solid, n.o.s. (Sodium dichloro-s-triazinetrione, Copper Compounds), 8,

Marine pollutant III
This material meets the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

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

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic Health Hazard No
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
aluminium sulfate 10043-01-3	5000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
aluminium sulfate 10043-01-3	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

Canada

PCP Registration Number This product does not contain any substances regulated as pesticides. / Ce produit ne contient aucune substance réglementée comme un pesticide.

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA Health hazards 3 Flammability 0 Instability 1 Physical and Chemical Properties -
HMIS Health hazards 3 Flammability 0 Physical hazards 1 Personal protection X

Prepared By Regulatory Affairs
Revision Date 26-Jun-2015
Revision Note No information available
Disclaimer

The information provided in this Material 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.

End of Safety Data Sheet