SAFETY DATA SHEET

Revision Date 20-Jan-2016 Version 1

1. IDENTIFICATION

Product identifier

Product Name BioGuard Clarifying Tabs

Other means of identification

Product Code 4858

Recommended use of the chemical and restrictions on use
Recommended Use Swimming Pool Product.
Uses advised against Do not mix with other chemicals

<u>Details of the supplier of the safety data sheet</u> 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
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2B
Reproductive toxicity	Category 2

Label elements

Emergency Overview

Warning

Hazard statements

Harmful if swallowed Causes skin irritation Causes eye irritation

Suspected of damaging fertility or the unborn child



Color white Physical state Solid Odor Low

BioGuard Clarifying Tabs Revision Date 20-Jan-2016

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

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

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

If eye irritation persists: Get medical advice/attention IF ON SKIN: Wash with plenty of soap and water If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Precautionary Statements - Storage

Store locked up

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

<u>Mixture</u>

Chemical Name	CAS No.	Weight-%
aluminium sulfate	10043-01-3	90 - 99
boric acid	10043-35-3	1 - 5

4. FIRST AID MEASURES

Description of first aid measures

General advice If symptoms persist, call a physician. Do not get in eyes, on skin, or on clothing. Do not

breathe dust.

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. If symptoms

persist, call a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. 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. Call a

physician.

Ingestion Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Never give anything by mouth

to an unconscious person. Call a physician.

Self-protection of the first aiderUse personal protective equipment as required.

BioGuard Clarifying Tabs Revision Date 20-Jan-2016

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO2, water spray or alcohol-resistant foam.

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into

surface water or sanitary sewer system. 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.

Methods for cleaning up Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to

properly labeled containers.

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.

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.

Incompatible materialsDo not mix with other swimming pool/spa chemicals in their concentrated forms. Strong

bases.

BioGuard Clarifying Tabs Revision Date 20-Jan-2016

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
aluminium sulfate	-	(vacated) TWA: 2 mg/m ³ Al	TWA: 2 mg/m ³ Al
10043-01-3		Aluminum	
boric acid	STEL: 6 mg/m³ inhalable fraction	=	-
10043-35-3	TWA: 2 mg/m³ inhalable fraction		

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

Odor

provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Solid Appearance tablet

Color white Odor threshold No information available

Property Values Remarks • Method

pH 3.6 in 1% Solution

Melting point/freezing point
Boiling point / boiling range
Flash point
Evaporation rate

No information available
No information available
No information available

Flammability (solid, gas) No information available

Flammability Limit in Air

Upper flammability limit:
Lower flammability limit:
Vapor pressure
Vapor density
Specific Gravity
No information available
No information available
No information available
No information available

Water solubility soluble

Solubility in other solvents
Partition coefficient
Autoignition temperature
Decomposition temperature
Kinematic viscosity
No information available
No information available
No information available
No information available

Dynamic viscosity

No information available

Density 0.84

Bulk density No information available

Explosive properties

Oxidizing properties

No information available
No information available
No information available

g/cm3

BioGuard Clarifying Tabs

Revision Date 20-Jan-2016

Other Information

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

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Exposure to air or moisture over prolonged periods. Extremes of temperature and direct sunlight. Do not mix with other chemicals.

Incompatible materials

Do not mix with other swimming pool/spa chemicals in their concentrated forms. Strong bases.

Hazardous Decomposition Products

Oxides of aluminum.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation Irritating to respiratory system.

Eye contact Irritating to eyes.

Skin contact May cause irritation. Contact with moist skin may cause skin burns.

Ingestion Harmful if swallowed. Ingestion may cause irritation to mucous membranes. Can burn

mouth, throat, and stomach.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
aluminium sulfate	= 1930 mg/kg (Rat)	-	-
10043-01-3			
boric acid	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 0.16 mg/L (Rat) 4 h
10043-35-3			

Information on toxicological effects

Symptoms No information available.

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

SensitizationNo information available.Germ cell mutagenicityNo information available.CarcinogenicityNo information available.

Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
Target Organ Effects
Aspiration hazard
No information available.
No information available.
Respiratory system, Skin.
No information available.

Numerical measures of toxicity - Product Information

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

ATEmix (oral) 1962 mg/kg ATEmix (inhalation-dust/mist) 120.8 mg/l

BioGuard Clarifying Tabs

Revision Date 20-Jan-2016

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects

1.14461% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
aluminium sulfate	-	100: 96 h Carassius auratus mg/L	136: 15 min Daphnia magna mg/L
10043-01-3		LC50 37: 96 h Gambusia affinis	EC50
		mg/L LC50 static	
boric acid	-	1020: 72 h Carassius auratus mg/L	115 - 153: 48 h Daphnia magna
10043-35-3		LC50 flow-through	mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Chemical Name	Partition coefficient
boric acid	-0.757
10043-35-3	

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastesDisposal 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

DOT Not regulated

TDG Not regulated

IATA Not regulated

<u>IMDG</u> Not regulated

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	-	-	Χ

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	5000 lb	-	RQ 5000 lb final RQ
10043-01-3			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 1 Flammability 0 Instability 0 Physical and Chemical

Properties -

Health hazards 1 Flammability 0 Physical hazards 0 Personal protection X

Prepared By Regulatory Affairs Revision Date Regulatory Affairs 20-Jan-2016

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