

## SAFETY DATA SHEET

### SPA FROG® Conditioning Cartridge

According to Regulation (EC) No 1907/2006, Annex II, as amended.  
Commission Regulation (EU) No 2020/878 of 18 June 2020.

#### **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

##### 1.1. Product identifier

Product name SPA FROG® Conditioning Cartridge  
UFI No PRTD-80GP-W00M-R4QD

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Spa and hot tub conditioner  
Uses advised against Use only for intended applications

##### 1.3. Details of the supplier of the safety data sheet

Manufacturer King Technology, Inc.  
6000 Clearwater Dr.  
Minnetonka, MN 55343  
USA  
001 (952) 933-6118  
sdsinfo@kingtechnology.com

##### 1.4. Emergency telephone number

Emergency telephone 001 (800) 424-9300 - Chemtrec (24 hours)

National emergency telephone Irish National Poison Centre: 01 809 2166

#### **SECTION 2: Hazards identification**

##### 2.1. Classification of the substance or mixture

*Classification (EC No 1272/2008)*

Physical hazards Met. Corr. 1 - H290  
Health hazards Eye Dam. 1 - H318  
Environmental hazards Not classified

##### 2.2. Label elements

*Labelling (EC No 1272/2008)*

Hazard pictograms



Signal word Danger  
Hazard statements H318 Causes serious eye damage.  
H290 May be corrosive to metals.  
Precautionary statements P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read attached instructions before use  
P280 Wear protective gloves  
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 CENTRE/ doctor.  
P390 Absorb spillage to prevent material damage.

##### 2.3. Other hazards

Other hazards This mixture contains no PBT/vPvB substances ≥ 0.1%.

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

The product is a mixture.

#### 3.2. Mixtures

Aluminium sulphate	10-20%
CAS number: 10043-01-3	
EC number: 233-135-0	
REACH status: registration not required (the annual tonnage of the substance does not require registration).	
Classification	
Met. Corr. 1 - H290	
Eye Dam. 1 - H318	

The full text for all hazard statements is displayed in section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

General information	Call a Poison Centre or doctor if you feel unwell. If medical advice is needed, have product container or label at hand. The granules are packaged in a pre-filled cartridge. Therefore, direct exposure to the mixture is not expected to occur if the cartridge is used in accordance with the prescribed use.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.
Ingestion	DO NOT induce vomiting. Spit product out of mouth as much as possible. Get medical attention immediately. Rinse mouth thoroughly with water.
Skin contact	Rinse with water.
Eye contact	Rinse immediately with plenty of water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

#### 4.2. Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure. The granules are packaged in a pre-filled cartridge. Therefore, direct exposure to the mixture is not expected to occur if the cartridge is used in accordance with the prescribed use.
Inhalation	No specific symptoms known.
Ingestion	No specific symptoms known.
Skin contact	Prolonged contact may cause dryness of the skin
Eye contact	Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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## SPA® FROG Bromine Cartridge

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

Specific hazards None known.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: harmful gases or vapours.

#### 5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective equipment as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Avoid inhalation of dust. Use suitable respiratory protection if ventilation is inadequate. Avoid contact with skin and eyes.

#### 6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

#### 6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

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### 7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Store in corrosive resistant container with a resistant inner liner.

Storage class Chemical storage.

### 7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

## **SECTION 8: Exposure controls/Personal protection**

### 8.1. Control parameters

#### Occupational exposure limits

Ireland: Aluminium sulphate CAS 10043-01-3. Time-weighted average (TWA): 2 mg/m<sup>3</sup>  
(TWA = 8-hour exposure limit)

### 8.2. Exposure controls

The granules are packaged in a pre-filled cartridge. Therefore, direct exposure to the mixture is not expected to occur if the cartridge is used in accordance with its prescribed use.

#### Protective equipment

Appropriate engineering controls Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Observe any occupational exposure limits for the product or ingredients.

#### Eye/face protection

Not required under normal use (the granules are packaged in a pre-filled cartridge). Therefore, direct exposure to the mixture is not expected to occur if the cartridge is used in accordance with its prescribed use). In case of accidental release, wear tight-fitting, chemical splash goggles or face shield EN 166. If inhalation hazards exist, a full-face respirator may be required instead.

#### Hand protection

Wear protective gloves EN 374. Material: PVC, Neoprene or Natural rubber. However, the granules are packaged in a pre-filled cartridge. Therefore, direct exposure to the mixture is not expected to occur if the cartridge is used in accordance with its prescribed use.

#### Other skin and body protection

Not required under normal use. Wear appropriate clothing to prevent any possibility of skin contact or in case of accidental release (the granules are packaged in a pre-filled cartridge). Therefore, direct exposure to the mixture is not expected to occur if the cartridge is used in accordance with its prescribed use).

#### Hygiene measures

Handle in accordance with good hygiene and safety practice. Wash hands after handling. Do not eat, drink or smoke when handling this product.

#### Respiratory protection

Not required under normal use. In case of accidental release, use EN 140 half mask and quarter mask respirators with replaceable filter cartridges.

#### Environmental exposure controls

Avoid release to the environment other than via the advised use of the product.

## **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state	Solid powder with small granules in a disposable cartridge.
Colour	White
Odour	Odourless
Melting point/freezing point	Not applicable.
Boiling/initial point and boiling range	Not applicable.
Flammability	Not flammable
Lower and upper explosion limit	Not applicable.
Flash point	Not applicable.
Auto-ignition temperature	No information available.

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Decomposition Temperature	No information available.
pH	Not available. The product reacts with water.
Kinematic viscosity	Not applicable.
Solubility(ies)	No information available.
Partition coefficient n-octanol/water	No information available.
Vapour pressure	No information available.
Density and/or relative density	No information available.
Relative vapour density	Not applicable.
Particle characteristics	MMAD >30 µm

### 9.2. Other information

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## **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Reactivity May be corrosive to metals.

### 10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No potentially hazardous reactions known.

### 10.4. Conditions to avoid

Conditions to avoid Keep away from heat, sparks and open flame.

### 10.5. Incompatible materials

Materials to avoid Mild steel. Stainless steel. Aluminium. May be corrosive to metals.

### 10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

## **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity - oral

Notes (oral LD<sub>50</sub>) Based on available data the classification criteria are not met.

#### Acute toxicity - dermal

Notes (dermal LD<sub>50</sub>) Based on available data the classification criteria are not met.

#### Acute toxicity - inhalation

Notes (inhalation LC<sub>50</sub>) Based on available data the classification criteria are not met.

#### Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

#### Serious eye damage/irritation

Serious eye damage/irritation Eye Dam. 1 - H318 Causes serious eye damage.

#### Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

#### Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

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### Germ cell mutagenicity

Genotoxicity - in vitro      Based on available data the classification criteria are not met.

### Carcinogenicity

Carcinogenicity      Based on available data the classification criteria are not met.

### Reproductive toxicity

Reproductive toxicity - fertility      Based on available data the classification criteria are not met.

Reproductive toxicity development      Based on available data the classification criteria are not met.

### Specific target organ toxicity - single exposure

STOT - single exposure      Not classified as a specific target organ toxicant after a single exposure.

### Specific target organ toxicity - repeated exposure

STOT - repeated exposure      Not classified as a specific target organ toxicant after repeated exposure.

### Aspiration hazard

Aspiration hazard      Not relevant. Solid.

General information      The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation      No specific symptoms known.

Ingestion      No specific symptoms known.

Skin contact      Prolonged contact may cause dryness of the skin.

Eye contact      Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

Route of exposure      Ingestion. Inhalation. Skin and/or eye contact

Target organs      No specific target organs known.

### 11.2. Information on other hazards

Endocrine disrupting properties      The mixture does not contain substances considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## **SECTION 12: Ecological information**

### 12.1. Toxicity

Toxicity      Based on available data the classification criteria are not met.

### 12.2. Persistence and degradability

Persistence and degradability      The degradability of the product is not known.

### 12.3. Bioaccumulative potential

Bioaccumulative potential      No data available on bioaccumulation.

Partition coefficient      No information available.

### 12.4. Mobility in soil

Mobility      No data available.

### 12.5. Results of PBT and vPvB assessment

No PBT and vPvB assessment has been carried out. This mixture contains no PBT/vPvB substances  $\geq 0.1\%$

### 12.6. Endocrine disrupting properties

Endocrine disrupting properties:      The mixture does not contain substances considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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### 12.7. Other adverse effects

Other adverse effects      None known.

## **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

Unused packaging      Discard according to the local regulations as hazardous waste. Do not discharge product in sewage and drainage systems which lead to waterways.

Contaminated packaging      Dispose of contents/container in accordance with local regulations.

## **SECTION 14: Transport information**

General      The product is not covered by international regulations on the transport of dangerous goods

### 14.1. UN number or ID number

Not applicable

### 14.2. UN proper shipping name

Not applicable

### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group

Not applicable

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant: No

### 14.6. Special precautions for user

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Transport in bulk      Not applicable.

## **SECTION 15: Regulatory information**

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

EU legislation      Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 2020/878 of 18 June 2020.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## **SECTION 16: Other information**

Classification abbreviations      Met. Corr.: Corrosive to metals  
and acronyms      Eye Dam.: Serious eye damage

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Abbreviations and acronyms used in the safety data sheet

CAS: Chemical Abstracts Service.  
ATE: Acute Toxicity Estimate.  
LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.  
LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).  
EC<sub>50</sub>: 50% of maximal Effective Concentration.  
PBT: Persistent, Bioaccumulative and Toxic substance.  
vPvB: Very Persistent and Very Bioaccumulative.

Classification procedures according to Regulation (EC) 1272/2008

Eye Dam. 1 - H318: Calculation method.  
Met. Corr. 1 - H290: Expert judgement.

Revision date 07/01/2025

SDS number 4786

Hazard statements in full

H290 May be corrosive to metals.  
H318 Causes serious eye damage.

### Version 2

This safety data sheet replaces any previous version.

Changes in sections 1.1, 2.2, 4.1, 8.2, 10.1 and updates in accordance with Regulation No 2020/878.

The information provided on the SDS is correct to the best of our knowledge, information, and belief at the date of this publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal, and release, and is not to be considered as 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 material or in any process, unless specified in the text.

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