



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US OSHA HCS 2024

Issuing Date 17-Apr-2026

Revision date 17-Apr-2026

Revision Number 1

1. Identification

Product identifier

Product Name Silver Mineral Formula

Other means of identification

Synonyms Flippin' FROG, Flippin' FROG XL

Recommended use of the chemical and restrictions on use

Recommended use Swimming Pools, Hot Tubs and Swim Spas

Restrictions on use Use only for intended applications

Details of the supplier of the safety data sheet

Manufacturer Address

King Technology, Inc.
6000 Clearwater Dr.
Minnetonka, MN 55343
+1 (952) 933-6118

E-mail sdsinfo@kingtechnology.com

Emergency telephone number

Emergency telephone Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification of the substance or mixture

This product is not considered hazardous by the US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200).

Hazards not otherwise classified (HNOC)

Not applicable.

Label elements

No label elements required

Hazards classified under paragraph (d)(1)(ii) of 1910.1200

No information available.

Other information

May be harmful in contact with skin. Very toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Weight-%	Trade secret / Unique identifier
Calcium carbonate	471-34-1	80 - 100	*
Silver chloride	7783-90-6	0.5 - 2	*

The specific chemical identity and/or concentration (exact or range) of the composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice and attention.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms occur.
Skin contact	Wash with plenty of water. Get medical attention if symptoms occur.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Symptoms	None known.
Effects of Exposure	None known.

Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical, CO2, alcohol-resistant foam or water spray.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	None known based on information supplied.
Hazardous combustion products	Harmful gases or vapors.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Use personal protective equipment. Do not touch or walk through spilled material.

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 Sweep up and shovel into suitable containers for disposal. Flush area with flooding quantities of water.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protective equipment. Do not handle broken packages without protective equipment.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, well-ventilated place. Keep only in original packaging. Protect from physical damage. Keep container upright.

8. Exposure controls/personal protection

Control Parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Calcium carbonate 471-34-1	-	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ ; total dust TWA: 5 mg/m ³ ; respirable dust
Silver chloride 7783-90-6	TWA: 0.01 mg/m ³ (Silver soluble compounds, as Ag)	TWA: 0.01 mg/m ³ (Silver soluble compounds, as Ag) (vacated) TWA: 0.01 mg/m ³ (Silver soluble compounds, as Ag)	TWA: 0.01 mg/m ³ (Silver soluble compounds, as Ag) IDLH: 10 mg/m ³ (Silver soluble compounds, as Ag)

Note

Other information on limit values See section 16 for terms and abbreviations.
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).

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing.

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.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water. Avoid release to the environment.

9. Physical and chemical properties**Information on basic physical and chemical properties**

Appearance Granules
Physical state Solid
Color White
Odor (includes odor threshold) Odorless

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		No data available
Boiling point (or initial boiling point or boiling range)		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Flash point		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
SADT (°C)		No data available
pH		No data available
pH (as aqueous solution)		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
Solubility		No data available
Water solubility		No data available
Partition coefficient n-octanol/water (log value)		No data available
Vapor pressure (includes evaporation rate)		No data available
Evaporation rate		No data available
Density and/or relative density		No data available
Bulk density		No data available
Liquid Density		No data available
Relative vapor density		No data available
Particle characteristics		
Particle Size		No data available

Particle Size Distribution

No data available

Other information**Molecular weight** No information available**VOC content** No information available**Softening point** No information available**Information with regard to physical hazard classes****Explosives**

Explosive properties No information available

Oxidizing properties No information available**10. Stability and reactivity****Reactivity** None under normal use conditions.**Chemical stability** Stable under normal conditions.**Possibility of hazardous reactions** None under normal processing.**Conditions to avoid** None known based on information supplied.**Incompatible materials** None known based on information supplied.**Hazardous decomposition products** None known based on information supplied.**11. Toxicological information****Information on likely routes of exposure****Product Information**

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Inhalation Specific test data for the substance or mixture is not available. Inhalation of dust in high concentration may cause irritation of respiratory system.**Eye contact** Specific test data for the substance or mixture is not available. Dust contact with the eyes can lead to mechanical irritation.**Skin contact** Specific test data for the substance or mixture is not available. Contact with dust can cause mechanical irritation or drying of the skin. May be harmful in contact with skin.**Ingestion** Specific test data for the substance or mixture is not available.**Symptoms related to the physical, chemical and toxicological characteristics****Symptoms** None known.**Acute toxicity****Numerical measures of toxicity**

The following ATE values have been calculated for the mixture:

ATEmix (dermal) > 2,000 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Calcium carbonate 471-34-1	= 6450 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 3 mg/L (Rat) 4 h

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

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
Other adverse effects	No information available.
Interactive effects	No information available.

12. Ecological information

Ecotoxicity	Very toxic to aquatic life with long lasting effects.
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<u>Persistence and degradability</u>	No information available.
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<u>Bioaccumulative potential</u>	No information available.
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<u>Mobility in soil</u>	No information available.
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<u>Other adverse effects</u>	No information available.
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13. Disposal considerations**Disposal methods**

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
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Contaminated packaging	Do not reuse empty containers. Rinse thoroughly before discarding in trash.
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14. Transport information

DOT Not regulated

IATA

UN number or ID number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s.
IATA Technical Name	Silver chloride
Transport hazard class(es)	9
Packing group	III
Environmental hazards	Yes
Special Provisions	A97, A158, A179, A197, A215
ERG Code	9L
Description	UN3077, Environmentally hazardous substance, solid, n.o.s. (Silver chloride), 9, III

IMDG

UN number or ID number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Technical Name	Silver chloride
Transport hazard class(es)	9
Packing group	III
Marine pollutant indicator	P
Marine pollutant name	Silver chloride
Special Provisions	274, 335, 375, 966, 967, 969
EmS-No.	F-A, S-F
Description	UN3077, Environmentally hazardous substance, solid, n.o.s. (Silver chloride), 9, III, Marine pollutant

15. Regulatory information

International Inventories

Contact supplier for inventory compliance status

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

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CAA (Clean Air Act)

This product does not contain any substances regulated as pollutants pursuant to Clean Air Act (CAA).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Silver chloride 7783-90-6	X	-	X

U.S. EPA Label Information

EPA Pesticide Registration Number 53735-11

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

16. Other information

NFPA	Health hazards 0	Flammability 0	Instability 0	Special hazards -
HMIS	Health hazards 0	Flammability 0	Physical hazards 0	Personal protection -

Key or legend to abbreviations and acronyms used in the safety data sheet

List may include phrases which are not applicable to this product

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
ECEL	Existing Chemical Exposure Limit
EINECS	European Inventory of Existing Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	U.S. Environmental Protection Agency

GHS	Globally Harmonized System
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organization
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organization for Standardization
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MARPOL	International Convention for the Prevention of Pollution from Ships
NDSL	Non-Domestic Substances List (Canada)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NTP	National Toxicology Program (United States)
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits
OSHA	Occupational Safety and Health Administration of the US Department of Labor
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
As	Allergenic substance
DS	Dermal Sensitizer
Ot	Ototoxicant
pOt	Ototoxicant - potential to cause hearing disorders
PS	Photosensitizer
RS	Respiratory Sensitizer

S	Sensitizer
poS	Sensitizer - capable of causing occupational asthma
Sa	Simple asphyxiant
Sd	Skin designation
pSd	Skin designation - potential for cutaneous absorption
Sdv	Skin designation - vacated
Sk	Skin notation
dSk	Skin notation - danger of cutaneous absorption
pSk	Skin notation - potential for cutaneous absorption

Key literature references and sources for data used to compile the SDS

U.S. Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 U.S. Environmental Protection Agency
 U.S. EPA Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 U.S. Hazardous Substance Data Bank (HSDB)
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 U.S. National Institute for Occupational Safety and Health (NIOSH)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 U.S. National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications
 International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program
 International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set
 United Nations World Health Organization (WHO)

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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.

End of Safety Data Sheet