



SAFETY DATA SHEET

BLISS POOL SPA & HOT TUB CALCIUM HARDNESS UP

Version 1.0

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name : Bliss Pool Spa and Hot Tub Calcium Hardness Up

Recommended use of chemical and restrictions on use

Recommended Use : Raises calcium hardness in spa and hot tub water

Restrictions : Do not mix with other chemicals

Details of the supplier of the safety data sheet

Supplier : Bliss Water Care, LLC
1309 Coffeen Avenue
Sheridan, WY, 82801

Telephone : (844) 404-0909

Email : sds@blisswatercare.com

Emergency telephone number:

Emergency phone : CHEMTREC: 1-800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity (oral) : Category 4
Serious eye damage/ eye irritation : Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements :
H303 May be harmful if swallowed
H319 Causes serious eye irritation
H290 May be corrosive to metals

Precautionary statements

Prevention :
P201 Obtain special instructions before use.
P264 Wash hands thoroughly after handling.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response :
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P337+P313 IF eye irritation persists: Get medical advice/attention.

Hazards not otherwise classified (HNOC)

none known.

Other information

0% of the mixture consists of ingredient(s) of unknown toxicity.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substance/Mixture** : Substance**Components**

Chemical name / Synonyms	CAS number	%
Calcium chloride	10043-52-4	100

SECTION 4. FIRST AID MEASURES**Description of first aid measures**

- General advice** : Call a poison control center or doctor for treatment advice. For 24 hour emergency medical assistance, call Chemtrec at 1-800-424-9300. Keep product label or container nearby when seeking help.
- If inhaled** : Move person to fresh air. If not breathing, call 911 and give artificial respiration.
- Skin contact** : Remove contaminated clothing. Rinse skin with water for 15-20 minutes. Call a poison control center or doctor if irritation persists.
- Eye contact** : Hold eye(s) open and rinse gently with water for 15-20 minutes. If present, remove contact lenses after 5 minutes, then continue rinsing. Call a poison control center or doctor if irritation persists.
- If swallowed** : Call a poison control center or doctor immediately for advice. If able, have person sip a glass of water. Do not induce vomiting unless told to. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : No data available.

Indication of any immediate medical attention and special treatment needed (note to physicians) : Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media : Choose extinguishing media appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

Specific hazards during firefighting : Development of toxic gases may occur from thermal decomposition or combustion of hazardous combustion products in the event of a fire. Hazardous combustion products: Hydrogen chloride gas. Calcium oxide. Soluble carbonates. Phosphates. Sulfates. Tartrates. Chlorine.

Protective equipment and precautions for firefighters : Wear self-contained breathing apparatus. MSHA/NIOSH approved (or equivalent) and full protective gear.

Further information : Use water spray to suppress or knock down vapors, mists, or dust. Prevent fire extinguishing water from contaminating surface water or groundwater systems.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : Avoid contact with eyes and skin. Do not

protective equipment and emergency procedures		breathe dust. Wear appropriate personal protective equipment (PPE) as required, including gloves, safety goggles and, if necessary, a dust mask. Stop source of spill as soon as possible and notify suitable personnel. Ensure adequate ventilation in the area and keep unprotected personnel away from the spill area. For personal protection section 8.
Methods and materials for containment and cleaning up	:	Sweep up and shovel into suitable container(s) for disposal. Avoid creating dust. Do not release into drains, soil or into surface water. For disposal see section 13.
Environmental precautions	:	Do not discharge into soil, drains, on the ground or water courses. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. If released into rivers, lakes or drains, inform respective authorities.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Keep away from heat. Take precautions to avoid mixing with combustibles. Do not ingest or swallow. Do not get in contact with skin, eyes and clothing. Provide adequate ventilation. Avoid breathing dust/vapors. Wear the appropriate personal protective equipment (PPE). When using the product, do not eat, drink or smoke. Wash hands thoroughly after handling. Use care in handling and storage.
Conditions for safe storage	:	Store in a cool, dry, well ventilated place, out of direct sunlight. Keep the container tightly closed. Store away from any sources of ignition, other chemicals or combustible

materials. Store away from incompatible materials (see section 10 of the SDS).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits	:	This product, as supplied, does not contain any hazardous materials with occupational exposure limits.
Engineering controls	:	Adequate ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use local exhaust ventilation or other engineering controls to keep airborne exposures below recommended exposure limit. Eye wash stations and safety showers should be provided in the work area when handling this product.
<u>Personal protective equipment</u>		
Eye/face protection	:	Wear safety goggles/ glasses.
Skin and body protection	:	Wear protective clothing and gloves made of nitrile rubber with minimum layer thickness of 0.11mm.
Respiratory protection	:	When dusts are generated, if exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn. Follow current local regulations.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	Powder solid
Appearance	:	Granules
Color	:	White
Odor	:	Odorless

Odor threshold	:	No data available
pH	:	8 - 10 (100 g/l, H ₂ O, 20 °C)
Melting point/freezing point	:	Melting point: 775°C at 1.013 hPa
Initial boiling point or boiling range	:	1.935 °C at 1.013 hPa
Flammability (solid, gas)	:	Not flammable
Upper flammability limit	:	No data available
Lower flammability limit	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Flash point	:	> 1600 °C
Evaporation rate	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	400 °C
Kinematic viscosity	:	No data available
Dynamic viscosity	:	No data available
Solubility	:	81.3 g/l at 25 °C - completely soluble
Specific gravity	:	No data available
Partition coefficient (n-octanol/water)	:	Not applicable for inorganic substances
Vapor pressure	:	0.01 hPa at 20 °C
Vapor density	:	No data available
Relative density	:	2.15
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Molecular Weight	:	100.98
Molecular Formula	:	CaCl ₂
λ_{max}	:	λ: 260 nm A _{max} : 0.04 λ: 280 nm A _{max} : 0.02

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No data available.
Chemical stability	:	Stable under recommended storage conditions. Hygroscopic.
Possibility of hazardous reactions	:	Reacts exothermically with boron trifluoride vinylmethyl ether. It reacts violently with bromine trifluoride and a reaction with zinc

releases explosive hydrogen gas. It has an exothermic reaction with water, and when heated to decomposition it emits toxic fumes of chlorine.

- Conditions to avoid** : Dust formation. Incompatible materials. Prolonged exposure to air or water. Direct sunlight and extreme temperatures.
- Incompatible materials** : No data available.
- Hazardous decomposition products** : Hydrogen chloride gas. Calcium oxide. Soluble carbonates. Phosphates. Sulfates. Tartrates. Chlorine.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

- Eyes** : Eye irritant.
- Skin** : May cause irritation.
- Inhalation** : Harmful by inhalation. May cause irritation of respiratory tract.
- Ingestion** : May be harmful if swallowed.

Numerical measures of acute toxicity – component information

Chemical Name (CAS)	Oral LD50	Dermal LD50	Inhalation LC50
Calcium chloride (10043-52-4)	-	= 2000 mg/kg (Rabbit)	-

Information on toxicological effects

- Symptoms** : No data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure

- Skin corrosion/irritation** : Result - No skin irritation - 4h (OECD Test Guideline 404)

Serious eye damage/eye irritation	:	Result - Moderate eye irritation (OECD Test Guideline 404)
Sensitization	:	No data available.
Germ cell mutagenicity	:	Test type: Mutagenicity (mammal cell test): Chromosome aberration. Test system: Chinese hamster fibroblasts. Metabolic activation: Without metabolic activation, Method: OECD Test Guideline 473, Result: negative.
		Test type: Ames test, Test system: S. typhimurium. Metabolic activation: metabolic activation, Method: OECD Test Guideline 471, Result: negative.
Carcinogenicity	:	Calcium chloride is not listed as a carcinogen by NTP, IARC, or OSHA.
Reproductive toxicity	:	No data available.
STOT - single exposure	:	No data available.
STOT - repeated exposure	:	No data available.
Chronic toxicity	:	LD50 i.v. in mice: 42.2 mg/kg (Syed, Hosain)
Aspiration hazard	:	No data available.
Interactive effects	:	No data available.
Data sources and methodology	:	No alternative data or estimation methods used. All data provided is based on available primary sources for Calcium chloride (CAS 10043-52-4).

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: Toxicity to fish and toxicity to daphnia and other aquatic invertebrates

Chemical Name (CAS)	Pimpephales promelas (fathead minnow)	Daphnia magna (Water flea)	Pseudokirchneriella subcapitata (Algae)
Calcium chloride (10043-52-4)	Static LC50, 96h, 4.630 mg/l	Static EC50, 48h, 2.400 mg/l	EC50, 72h, 2.900 mg/l

Persistence and degradability	:	Methods for determining biological degradability are not applicable to inorganic substances.
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Bioaccumulative potential	:	No data available.
Results of PBT and vPvB assessment	:	This substance is not classified as persistent, bioaccumulative, or toxic (PBT), nor as very Persistent and very Bioaccumulative (vPvB) at concentrations of 0.1% or higher.
Mobility in soil	:	No data available.
Other adverse effects	:	No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from residue	:	Do not discharge into any sewer, on the ground, soil or water courses. Should not be released into the environment. Dispose of in accordance with local, state and federal regulations.
Contaminated packaging	:	Empty containers may retain product residue. Do not reuse or refill containers. Refer to all local, state and federal regulations prior to disposal. Empty containers should be taken to an approved waste handling site for recycling or disposal.
RCRA status	:	This product, as supplied, is not classified as a hazardous waste under the U.S. Resource Conservation and Recovery Act (RCRA), 40 CFR Part 261.

SECTION 14. TRANSPORT INFORMATION

U.S. DOT (49 CFR)	:	Not regulated as a hazardous material under DOT regulations.
UN number	:	Not applicable.
UN proper shipping name	:	Not applicable.
Transport hazard class(es)	:	Not applicable.

Packing group	:	Not applicable.
Environmental hazards (Marine pollutant)	:	No.
IMDG	:	Not regulated as dangerous goods under the IMDG Code.
UN number	:	Not applicable.
UN proper shipping name	:	Not applicable.
Transport hazard class(es)	:	Not applicable.
Packing group	:	Not applicable.
Environmental hazards (Marine pollutant)	:	No.
IATA	:	Not regulated as dangerous goods under IATA regulations.
UN number	:	Not applicable.
UN proper shipping name	:	Not applicable.
Transport hazard class(es)	:	Not applicable.
Packing group	:	Not applicable.
Environmental hazards (Marine pollutant)	:	No.
Special precautions for user	:	None known.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable.

SECTION 15. REGULATORY INFORMATION

United States Federal Regulations

Clean Air Act (CAA)	:	This product, as supplied, is not listed as a Hazardous Air Pollutant (HAP).
Clean Water Act (CWA)	:	Not listed as a hazardous substance.
CERCLA	:	This product, as supplied, is not listed as a hazardous substance under the Comprehensive Environmental Response, Compensation and Liability Act.

TSCA : Listed / Complies.

SARA Title III (EPCRA)

Section 302/304 : Not listed as an extremely hazardous substance.

Section 311/312 hazards : Acute health hazard - Yes
Chronic health hazard - No
Fire hazard - No
Sudden release of pressure hazard - No
Reactive hazard - No

Section 313 : This product does not contain chemicals subject to SARA 313 reporting.

United States State Regulations

California Proposition 65 : This product does not contain any substances known to the State of California to cause cancer, birth defects, or other reproductive harm.

U.S. States Right-to-Know : Calcium chloride (10043-52-4) is not listed on the Right-to-Know substance lists for any states.

U.S. EPA label information : EPA pesticides registration number : Does not contain any substances regulated as pesticides.

SECTION 16. OTHER INFORMATION

<u>NFPA</u>	Health 2	Flammability 0	Reactivity 0	Special hazard
<u>HMIS</u>	Health 2	Flammability 0	Physical hazard 0	Personal protection E

Abbreviations and acronyms

CAS: Chemical Abstracts Service, CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act, CFR: Code of Federal Regulations, EC50: Effective Concentration 50%, EPA: Environmental Protection Agency, EPCRA: Emergency Planning

and Community Right-to-Know Act, GHS: Globally Harmonized System of Classification and Labelling of Chemicals, HMIS - Hazardous Materials Identification System, IARC: International Agency for Research on Cancer, IATA: International Air Transportation Association, IMDG: International Maritime Dangerous Goods, LC50: Lethal Concentration 50%, LD50: Lethal Dose 50%, MSHA: Mine Safety and Health Administration, NFPA - National Fire Protection Association, NIOSH: National Institute for Occupational Safety and Health, NTP: National Toxicology Program, OECD: Organisation for Economic Co-operation and Development, OSHA: Occupational Safety and Health Administration, SARA: Superfund Amendments and Reauthorization Act, STOT: Specific Target Organ Toxicity, TSCA: Toxic Substances Control Act, U.S.: United States, UN: United Nations.

References

Bliss Water Care Internal data including own and sponsored test results

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

eCFR – Code of Federal Regulations, website: <https://www.ecfr.gov/>

eChemPortal – The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

ECHA – European Chemicals Agency, website: <https://echa.europa.eu/>

ERG – Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>

Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

HSDB – Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC – International Agency for Research on Cancer, website: <http://www.iarc.fr/>

IATA – International Air Transport Association, website: <https://www.iata.org/>

IMDG – International Maritime Dangerous Goods, website: <https://www.imo.org/>

IPCS – The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

NFPA - National Fire Protection Association, website: nfpa.org/en

NTP – National Toxicology Programme, website: <https://ntp.niehs.nih.gov/>

OEHHA – California Proposition 65, website: <https://oehha.ca.gov/proposition-65>

OSHA – Occupational Safety and Health Administration, website: <https://www.osha.gov/>

Sigma-Aldrich, website: <https://www.sigmaaldrich.com/>

U.S. EPA – United States Environmental Protection Agency, website: <https://www.epa.gov/>

Prepared by Bliss Water Care Regulatory Team

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The information presented in this Safety Data Sheet is provided in good faith and is believed to be accurate as of the date of issue. It is intended solely to assist in the safe handling, use, processing, storage, transportation and disposal of the product under normal conditions and in accordance with applicable U.S. federal, state and local regulations. This document is not a warranty or guarantee of product properties or performance. Users are responsible for evaluating the suitability of this information for their specific purposes and for ensuring compliance with all applicable laws.

End of safety data sheet.