Lonza

SAFETY DATA SHEET

according to US Regulation 29 CFR 1910.1200 and the Canadian HPA

GLB SUPER CHARGE II

Version 1.1 Revision Date 2019.05.08 Print Date 2019.06.12

SECTION 1. IDENTIFICATION

Product name : GLB SUPER CHARGE II

Manufacturer or supplier's details

Company : Arch Chemicals, Inc.
1200 Bluegrass Lakes Parkway
Alpharetta, GA
30004
United States of America (USA)

E-mail address : sds@lonza.com
Emergency telephone number : In case of emergency call CHEMTREC US: 1-800-424-9300, CHEMTREC WORLD-WIDE: +1-703-527-3887.

Recommended use of the chemical and restrictions on use

Recommended use : Water treatment chemical

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4

Skin corrosion : Category 1B

Serious eye damage : Category 1

Acute toxicity (Inhalation) : Category 3

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**
P260 Do not breathe vapours.
P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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 CENTER/doctor.
P363 Wash contaminated clothing before reuse.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local regulation.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture

Hazardous components

Chemical name / Synonyms	CAS-No.	Concentration (% w/w)
Calcium hypochlorite	7778-54-3	40 - 55
Calcium dihydroxide	1305-62-0	0 - 5
Calcium chlorate	10137-74-3	0 - 4
Calcium chloride	10043-52-4	0 - 4

SECTION 4. FIRST AID MEASURES

General advice : Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

If inhaled : IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

In case of skin contact : IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

		Call a poison control center or doctor for treatment advice.
In case of eye contact	:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If swallowed	:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	:	None known.
Notes to physician	:	Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water only. Do not use dry extinguishers containing ammonium compounds.
Further information	:	Use water to cool containers exposed to fire. See Section 6 for protective equipment for fire fighting.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Response to a large quantity spill (100 pounds or greater) or when dusting or decomposition gas exposure could occur requires the use of a positive pressure full face supplied air repirator or self contained breathing apparatus (SCBA), chemical resistant gloves, coveralls and boots. In case of fire, this personal protective equipment should be used in addition to normal fire fighter equipment. Hazardous concentrations in air may be found in local spill area and immediately downwind. Remove all sources of ignition. Stop source of spill as soon as possible and notify appropriate personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration. This material may be neutralized for disposal; you are requested to contact Arch Chemicals at 1-800-654-6911 before beginning any such procedure.
Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Sweep up and shovel into suitable containers for disposal. Do not flush into surface water or sanitary sewer system. Avoid dust formation.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Avoid inhalation of dust and fumes. Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Remove contaminated clothing and wash before reuse.
Conditions for safe storage	:	Keep product tightly sealed in original containers. Store product in a cool, dry, well-ventilated area. Store away from combustible or flammable products. Keep product packaging clean and free of all contamination, including, e.g. other pool treatment products, acids, organic materials, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, etc.
Materials to avoid	:	Do not allow product to come in contact with other materials, including e.g. other pool treatment products, acids, organic materials, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, etc A chemical reaction with such substances can cause a fire.
Further information on storage stability	:	Do not store product where the average daily temperature exceeds 95° F. Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products. Shelf life (that is, the period of time before the product goes below stated label strength) is determined by storage time and temperatures. Store in a cool, dry and well ventilated area. Prolonged storage at elevated temperatures will significantly shorten the shelf life. Storage in a climate controlled storage area or building is recommended in those areas where extremes of high temperature occur.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Calcium dihydroxide	1305-62-0	TWA	5 mg/m3	ACGIH
		REL	5 mg/m3	NIOSH/GUIDE
		PEL (Total dust.)	15 mg/m3	OSHA_TRANS
		PEL (Respirable fraction.)	5 mg/m3	OSHA_TRANS
		TWA	5 mg/m3	Z1A

Engineering measures : Local exhaust ventilation or other engineering controls are normally required when handling or using this product to

keep airborne exposures below the TLV, PEL or other recommended exposure limit.

Personal protective equipment

Respiratory protection	:	Wear a NIOSH approved respirator if levels above the exposure limits are possible. A NIOSH approved full-face air purifying respirator equipped with combination chlorine/P100 cartridges. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.
Hand protection		
Remarks	:	Wear impervious gloves to avoid skin contact. A full impervious suit is recommended if exposure is possible to a large portion of the body.
Eye protection	:	Use chemical goggles.
Skin and body protection	:	Nitrile Natural Rubber Neoprene (This includes: gloves, boots, apron, protective suit)
Protective measures	:	An eye wash and safety shower should be provided in the immediate work area.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	granules
Colour	:	white
Odour	:	Chlorine-like
Odour Threshold	:	no data available
pH	:	10.0 - 10.8 Concentration: 10 g/l (as aqueous solution)
Melting point/freezing point	:	Not applicable
Boiling point/boiling range	:	no data available
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	This product contains an ingredient (calcium hypochlorite) which is both a strong oxidizer and is chemically reactive with many substances. Strong oxidizers are capable of intensifying a fire once started. Because of this, any contamination of the product with other substances by spill or otherwise should be

		avoided. Also see section 7.
Flammability (liquids)	:	no data available
Self-ignition	:	Not applicable
Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	Not applicable
Density	:	0.8 g/cm3
Bulk density	:	no data available
Water solubility	:	180 g/l (77 °F / 25 °C)
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	no data available
Decomposition temperature	:	338 - 356 °F / 170 - 180 °C
Viscosity, dynamic	:	no data available
Viscosity, kinematic	:	no data available
Molecular weight	:	143.00 g/mol

SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	:	NFPA Oxidizer Class: Meets the criteria of an NFPA Class 1 Oxidizer
Conditions to avoid	:	Do not store next to heat source, in direct sunlight, or elevated storage temperature. Do not store where the daily average temperature exceeds 95 °F. Prevent ingress of humidity and moisture into container or package. Always close the lid.
Incompatible materials	:	This product is chemically reactive with many substances, including, e.g., other pool treatment products, acids, organics, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, corrosive, flammable or combustible materials. Do not allow product to contact any foreign matter, including other water treatment products. Contamination or improper use may cause a fire, explosion or the release of toxic gases. If product is exposed to small amounts of water, it can react violently to produce heat and toxic gases and spatter.
Hazardous decomposition products	:	Chlorine

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	Inhalation, skin, eyes, ingestion

Acute toxicity

Acute oral toxicity	:	LD50 (Rat): approximately 1,200 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 2.04 mg/l Exposure time: 1 h Test atmosphere: dust/mist Remarks: (Nose Only) Test atmosphere assumed based on available information. LC50 (Rat): > 0.51 mg/l Exposure time: 4 h Test atmosphere: dust/mist Remarks: (Nose Only) Test atmosphere assumed based on available information.
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg
Acute toxicity (other routes of administration)	:	Remarks: This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract. The dry material is irritating to the skin. However when wet, it will produce burns to the skin.

Skin corrosion/irritation

Remarks: DRY MATERIAL CAUSES MODERATE SKIN IRRITATION.
WET MATERIAL CAUSES SKIN BURNS.

Serious eye damage/eye irritation

Result: Corrosive to eyes

Respiratory or skin sensitisation

Remarks: This material is not known or reported to be a skin or respiratory sensitizer.

Carcinogenicity

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Repeated dose toxicity

Remarks: There are no known or reported effects from repeated exposure except those secondary to burns.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): approximately 0.12 mg/l Exposure time: 96 h Test Type: static test Remarks: Based on extrapolation from studies using calcium hypochlorite. Nominal LC50 (Oncorhynchus mykiss (rainbow trout)): approximately 0.22 mg/l Exposure time: 96 h Test Type: static test Remarks: Based on extrapolation from studies using calcium hypochlorite. Nominal
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia magna (Water flea)): approximately 0.15 mg/l Exposure time: 48 h Test Type: static test Test substance: Active ingredient Remarks: Nominal
Toxicity to terrestrial organisms	:	LC50 (Colinus virginianus (Bobwhite quail)): > 7,000 ppm Remarks: Based on extrapolation from studies using calcium hypochlorite. LC50 (Mallard ducklings): > 7,000 ppm Remarks: Based on extrapolation from studies using calcium hypochlorite. LD50 (Colinus virginianus (Bobwhite quail)): approximately 4,800 mg/kg Remarks: Based on extrapolation from studies using calcium hypochlorite.

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

Ozone-Depletion Potential	:	Regulation: US. EPA Clean Air Act (CAA) Section 602 Ozone-Depleting Substances (40 CFR 82, Subpt. A, App A & B) Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S.

Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Highly toxic to fish and other aquatic organisms.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : If this product becomes a waste, it will be a nonhazardous waste.
As a nonhazardous solid waste it should be disposed of in accordance with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION

DOT

UN number	:	3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (Calcium hypochlorite)
Transport hazard class	:	9
Packing group	:	III
Labels	:	9
Emergency Response Guidebook Number	:	171
Environmental hazards	:	yes

TDG

UN number	:	3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Calcium hypochlorite)
Transport hazard class	:	9
Packing group	:	III
Labels	:	9
Environmental hazards	:	yes

IATA

UN number	:	3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (Calcium hypochlorite)
Transport hazard class	:	9
Packing group	:	III
Labels	:	9MI
Environmental hazards	:	yes

IMDG

UN number	:	3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (Calcium hypochlorite)
Transport hazard class	:	9
Packing group	:	III
Labels	:	9
EmS Number 1	:	F-A
EmS Number 2	:	S-F
Environmental hazards	:	Marine pollutant: yes

ADR

UN number	:	3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Calcium hypochlorite)
Transport hazard class	:	9
Packing group	:	III
Classification Code	:	M7
Hazard Identification Number	:	90
Labels	:	9
Environmental hazards	:	yes

RID

UN number	:	3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Calcium hypochlorite)
Transport hazard class	:	9
Packing group	:	III
Classification Code	:	M7
Hazard Identification Number	:	90
Labels	:	9
Environmental hazards	:	yes
Special precautions for user	:	none
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

EPA Registration number	:	1258-1237-7364
Signal word	:	DANGER!
Hazard statements	:	Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. This pesticide is toxic to fish and aquatic organisms.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Calcium hypochlorite	7778-54-3	10	18

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards

See above: SECTION 2. Hazard Identification-GHS Classification

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

Clean Water Act

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Components	CAS-No.	Component RQ (lbs)
Calcium hypochlorite	7778-54-3	10

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Components	CAS-No.	Concentration
Calcium hypochlorite	7778-54-3	40 - 55 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

Components	CAS-No.
Calcium hypochlorite	7778-54-3
Calcium dihydroxide	1305-62-0
Calcium chlorate	10137-74-3
Calcium carbonate	471-34-1

Pennsylvania Right To Know

Components	CAS-No.
Calcium hypochlorite	7778-54-3
Magnesium sulfate heptahydrate	10034-99-8
Sodium chloride	7647-14-5
Calcium dihydroxide	1305-62-0
Calcium chloride	10043-52-4
Calcium chlorate	10137-74-3
Calcium carbonate	471-34-1

New Jersey Right To Know

Components	CAS-No.
Calcium hypochlorite	7778-54-3
Magnesium sulfate heptahydrate	10034-99-8
Sodium chloride	7647-14-5
Calcium dihydroxide	1305-62-0

Calcium chlorate	10137-74-3
Calcium carbonate	471-34-1

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canadian lists

NPRI

Canadian National Pollutant Release Inventory (NPRI): No component is listed on NPRI.

The components of this product are reported in the following inventories:

TSCA : This is an EPA registered pesticide.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH	:	US. ACGIH Threshold Limit Values
NIOSH/GUIDE	:	US. NIOSH: Pocket Guide to Chemical Hazards
OSHA_TRANS	:	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Z1A	:	US. OSHA Table Z-1-A (29 CFR 1910.1000)

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act

(United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 2019.05.08

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.

Date format : yyyy/mm/dd

US / EN