GEARTH

SAFETY DATA SHEET
HarvestSan Granular

GHS REV 10

1 Identification

Product identifier	HarvestSan Granular
Other means of identification	No data available
Recommended use	Disinfectant for post-harvest washing in packhouses.
Restrictions on use	No data available
Supplier	GEARTH (Pty) Ltd, 96 Lazy River Road, Centurion 0157, Gauteng, South Africa
Telephone	012 004 8183 | info@gearth.co.za
Emergency telephone number	**066 214 2274 (24 hours)**

2 Hazards identification

2.1 Classification of the substance or mixture

GHS classification	Source classification (SANS 10234:2008 / EC 1272/2008): Oxidising solid, Category 2 (H272); Acute toxicity oral, Category 4 (H302); Skin corrosion, Category 1B (H314); Serious eye damage, Category 1 (H318); STOT single exposure, Category 3 (H335); Aquatic acute, Category 1 (H400). Most important adverse effects: oxidising solid; causes serious skin corrosion and eye damage.

2.2 Label elements

Hazard pictograms	No data available
Signal word	Danger.
Hazard statements	H272 May intensify fire; oxidiser. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation. H400 Very toxic to aquatic life.
Precautionary — prevention	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources — no smoking. P220 Keep / store away from clothing / combustible materials. P260 Do not breathe dust or fumes. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P280 Wear eye protection.
Precautionary — response	P370+P378 In case of fire: use dry sodium carbonate for extinction. P301+P312 IF SWALLOWED: call a poison centre or doctor if you feel unwell. P301+P330+P331 IF SWALLOWED: rinse mouth; do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing; rinse skin with water / shower. P363 Wash contaminated clothing before reuse. P304+P340 IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a poison centre or doctor. P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes; remove contact lenses if present and easy to do; continue rinsing; immediately call a poison centre or doctor. P391 Collect spillage.
Precautionary — storage	P403+P233 Store in a well-ventilated place; keep container tightly closed. P405 Store locked up.
Precautionary — disposal	P501 Dispose of contents / container in accordance with local / regional regulations.

2.3 Other hazards

OTHER HAZARDS DISCLOSURE

Oxidising solid — may intensify fire. If exposed to small amounts of water it can react violently, producing heat, toxic gases and spatter; excessive temperatures cause rapid decomposition with evolution of chlorine gas (source data).

3 Composition / information on ingredients

Ingredient	CAS no.	EC no.	Conc. % (w/w)	Classification
Calcium hypochlorite	7778-54-3	231-908-7	60 – 70%	Ox. Sol. 2 H272; Acute Tox. 4 H302; Skin Corr. 1B H314; Aquatic Acute 1 H400 (source)
Hydrated lime	1305-62-0	215-137-3	1 – 5%	Skin Irrit. 2 H315; Eye Dam. 1 H318; STOT-SE 3 H335 (source)
Total			**100**	

Exact composition percentages are withheld as a trade secret in accordance with the HCA Regulations, 2021. The classification of withheld components is reflected above.

4 First-aid measures

4.1 Description of first-aid measures

Inhalation	Move person into fresh air. If not breathing, give artificial respiration. In case of discomfort, seek medical attention.
Skin contact	Wash off with soap and plenty of water for at least 15 minutes. In case of discomfort, seek medical attention.
Eye contact	Flush eyes thoroughly with water for 15 minutes; remove contact lenses after the initial 1 – 2 minutes and continue flushing. Seek medical attention immediately.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects	Corrosive by all routes. Inhalation: extremely destructive to mucous membranes and upper respiratory tract — burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting; may be fatal through spasm, inflammation and oedema of the larynx and bronchi, chemical pneumonitis and pulmonary oedema. Ingestion: severe burns of mouth, throat and stomach; sore throat, vomiting, diarrhoea. Skin: redness, pain, severe burns. Eyes: blurred vision, redness, pain, severe tissue burns.

4.3 Indication of any immediate medical attention and special treatment needed

Medical attention	None known (source statement); treat symptomatically.

5 Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Prevent contamination of drains or waterways.
Unsuitable extinguishing media	Carbon tetrachloride and dry ammonium-compound fire extinguishers — explosion can occur if used on a calcium hypochlorite fire.

5.2 Special hazards arising from the substance or mixture

Specific hazards / hazardous combustion products	Sealed containers may rupture when heated; toxic gases may be evolved in a fire situation.

5.3 Advice for firefighters

Protective equipment for firefighters	Evacuate area and contact emergency services; remain upwind and notify those downwind. Full protective equipment including self-contained breathing apparatus (SCBA).

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures	Isolate the area; keep unnecessary and unprotected personnel out. Avoid inhalation and skin contact. Emergency responders: remove all ignition sources and keep water away from spilled material.
Environmental precautions	Prevent entry into soil, ditches, sewers, waterways and groundwater.
Methods and material for containment and cleaning up	Contain the spill (dike large spills). Sweep and shovel, collect with an electrically protected vacuum cleaner or by wet-brushing, and place in containers per local regulations. Do NOT flush with water. Collect in suitable, properly labelled containers.

7 Handling and storage

7.1 Precautions for safe handling

Safe handling	Observe label directions. Avoid contact with skin and eyes; avoid formation of dust and aerosols; provide exhaust ventilation where dust forms. Do not eat, drink or smoke when handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions	Store cool, dry and well-ventilated with containers tightly closed. Never allow contact with water during storage. Do not store near pool-treatment products, acids, organic materials, nitrogen-containing compounds, dry-powder fire extinguishers (monoammonium phosphate), oxidisers, corrosive liquids or combustibles.
Packaging	25 kg bucket.
Shelf life	Do not store where the average daily temperature exceeds 35 °C — storage above this may cause rapid decomposition, chlorine gas evolution and heat sufficient to ignite combustibles. Shelf life is determined by storage time and temperature; prolonged elevated temperatures shorten it significantly.
Incompatibilities	Water (during storage), acids, organic materials, nitrogen-containing compounds, dry-powder extinguishers, oxidisers, corrosive liquids, flammable or combustible materials.

8 Exposure controls / personal protection

8.1 Control parameters — occupational exposure limits

Substance	OEL type	Value	Source
Product / components	OEL / BEI	No data available (source statement)	HCA Regs 2021 Annexure 2

8.2 Appropriate engineering controls

Engineering controls	Avoid inhalation; use in well-ventilated areas; mechanical extraction ventilation where an inhalation risk exists. Maintain dust levels below the recommended exposure standard.

8.3 Individual protection measures

Eye / face protection	Safety glasses; chemical goggles where particles could cause eye discomfort.
Skin / hand protection	Chemical-resistant gloves. Body protection not necessary under normal use. Glove material: Butyl rubber, neoprene, nitrile/butadiene rubber, polyethylene, ethyl vinyl alcohol laminate, polyvinyl alcohol or PVC (source-preferred barrier materials); breakthrough time: No data available
Respiratory protection	At high dust levels or if discomfort is experienced, use an approved air-purifying respirator; wear respiratory protection when exposure limits or guidelines may be exceeded. Filter type: Air-purifying (particulate) — per source guidance
Thermal hazards	No data available

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Granules
Colour	White or grey-white
Odour	Chlorine
Melting point / freezing point	Decomposes above 177 °C, releasing oxygen
Boiling point or initial boiling point and boiling range	Not known (source data)
Flammability	Not known (source data); physical hazard: oxidiser
Lower and upper explosion limit / flammability limit	Not known (source data)
Flash point	Not known (source data)
Auto-ignition temperature	Not known (source data)
Decomposition temperature	170 – 180 °C
pH (concentration and temperature stated)	Not known (1% solution; source statement)
Kinematic viscosity	No data available
Solubility	Water solubility 10 g/L at 20 °C
Partition coefficient n-octanol/water (log Kow)	Not known (source data)
Vapour pressure	Not known (source data, 20 °C)
Density and/or relative density	No data available
Relative vapour density	6.9
Particle characteristics	Granules; volatiles by volume at 21 °C: 0%

9.2 Other information

Explosive properties	No data available
Oxidising properties	Oxidiser (source physical hazard)
Bulk density	No data available
Active solids	No data available

10 Stability and reactivity

Reactivity	Not sensitive to mechanical shock or impact.
Chemical stability	Stable under recommended storage conditions; will not undergo hazardous polymerisation.
Possibility of hazardous reactions	Hazardous polymerisation not expected. Violent reaction with small amounts of water, producing heat, toxic gases and spatter.
Conditions to avoid	Heat sources, direct sunlight, elevated storage temperature (daily average above 35 °C), ingress of humidity and moisture. Always close the lid.
Incompatible materials	Water (small amounts), acids, organic materials, nitrogen-containing compounds, dry-powder extinguishers, oxidisers, corrosive liquids, combustibles.
Hazardous decomposition products	Chlorine.

11 Toxicological information

Likely routes of exposure	Inhalation of dust or fumes; skin and eye contact; ingestion.
Symptoms related to exposure	Corrosive effects by all routes — see Section 4.2.
Delayed and chronic effects	No data available

Numerical measures of toxicity

Endpoint	Species	Route	Value
LD50 (acute oral)	Rat	Oral	850 mg/kg (calcium hypochlorite; source data)

Numerical value relates to the calcium hypochlorite component, not the mixture as supplied — read-across from source component data.

Acute toxicity — dermal	No data available
Acute toxicity — inhalation	No data available
Skin corrosion / irritation	Skin corrosion Category 1B (source classification).
Serious eye damage / irritation	Serious eye damage Category 1 (source classification).
Respiratory sensitisation	No data available
Skin sensitisation	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	Calcium hypochlorite: IARC category 3 (source data).
Reproductive toxicity	No data available
STOT — single exposure	Category 3 — may cause respiratory irritation (source classification).
STOT — repeated exposure	No data available
Aspiration hazard	No data available

12 Ecological information

Aquatic toxicity

Species	Endpoint	Value	Duration
No data available	No data available	No data available	No data available

Source classifies the mixture Aquatic Acute Category 1 (H400 — very toxic to aquatic life) but reports no numerical ecotoxicity endpoints.

Persistence and degradability — method	No data available
Persistence and degradability — result	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	No data available

13 Disposal considerations

Waste residues	No data available
Disposal methods	Dispose of in accordance with municipal, provincial and national regulations.
Contaminated packaging	Recycle where possible.
Waste classification (NEM:WA 59 of 2008, GN R635)	No data available

14 Transport information

Mode	UN no.	Proper shipping name	Class	PG
Road (SANS 10228 / ADR)	UN 1748	CALCIUM HYPOCHLORITE, DRY	5.1	II
Rail (RID)	UN 1748	CALCIUM HYPOCHLORITE, DRY	5.1	II
Sea (IMDG)	UN 1748	CALCIUM HYPOCHLORITE, DRY	5.1	II
Air (IATA)	UN 1748	CALCIUM HYPOCHLORITE, DRY	5.1	II

Marine pollutant	Yes (all modes; source data).
Transport in bulk (IMO instruments)	Transport in bulk according to MARPOL 73/78 Annex II and the IBC Code (source data).
Special precautions for user	Keep away from heat and combustibles; never allow contact with water in transit storage.

15 Regulatory information

Safety, health and environmental regulations specific to the product	Occupational Health and Safety Act 85 of 1993; Regulations for Hazardous Chemical Agents, 2021; NEM:WA 59 of 2008; Occupational Health and Safety Act, 1993 — Regulations for Hazardous Chemical Substances; Regulation EC 1272/2008 [EU-GHS/CLP] (source citations).
NRCS VC 8054 status	No data available
Ecolabel certification	No data available
Chemical safety assessment	A chemical safety assessment has not been carried out (source statement).

16 Other information

Date of preparation	18 August 2026
Latest revision	Rev 1.0, 18 August 2026
Summary of changes	First GEARTH issue (Rev 1.0). Safety content transferred unchanged from the source manufacturer's MSDS (dated 5 February 2025; source product Frexus Dry-Tech); no data re-tested or re-derived.
Full text of hazard (H) statements	H272 May intensify fire; oxidiser. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H400 Very toxic to aquatic life.
Full text of precautionary (P) statements	P210, P220, P260, P264, P270, P273, P280 (prevention); P370+P378, P301+P312, P301+P330+P331, P303+P361+P353, P363, P304+P340, P310, P305+P351+P338, P391 (response); P403+P233, P405 (storage); P501 (disposal) — full texts as printed in Section 2.2.
Key to abbreviations	GHS — Globally Harmonized System; OEL — occupational exposure limit; STOT — specific target organ toxicity; PG — packing group; SG — specific gravity; CAS — Chemical Abstracts Service; HCA — hazardous chemical agents.
Classification method	Classified by the source manufacturer per SANS 10234:2008 and Regulation EC 1272/2008 [EU-GHS/CLP]. Alignment with UN GHS Rev 10 to be confirmed.
Training advice	Use as instructed (source training note). Handlers must be familiar with corrosive-materials and oxidiser handling procedures.
Disclaimer	This information is based on present knowledge and describes the product for the purposes of health, safety and environmental requirements only. It does not constitute a guarantee of the properties of the product. Final determination of suitability for any use is the sole responsibility of the user.

SIGN-OFF

Prepared by	GEARTH (Pty) Ltd
Document ref	SDS-GEA-025
Revision	1.0 (18 August 2026)
Supersedes	None — first GEARTH issue
Next review	August 2028