



Sodium Hexametaphosphate Solution

AGent

AGent SDS: Sodium Hexametaphosphate Solution [2026.01]

Version No: 2026.01

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Hazard Alert Code: 0

Issue Date: June 2026

Print Date: (auto-fills on print)

AGENT.GHS.AUS.EN.E

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

Product name	Sodium Hexametaphosphate Solution
Chemical Name	Sodium hexametaphosphate, aqueous solution
Synonyms	Calgon Solution; SHMP solution; sodium hexametaphosphate 10-30% solution
Proper shipping name	Not Applicable — NON-DANGEROUS GOODS
Chemical formula	(NaPO ₃) _n in water
Other means of identification	Sodium Hexametaphosphate Solution [2026.01]

Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Water softener; sequestrant; scale and corrosion control — supplied as an aqueous solution.
Uses advised against	None specified in the source SDS.

Details of the manufacturer or supplier of the safety data sheet

Registered company name	AGent Sales & Services Pty Ltd
Address	38 May Holman Drive, Bassendean WA 6054, Australia
Telephone	(+61 8) 6270 4500 / 1300 833 844
Website	agentsales.com.au
Email	admin@agentsales.com.au

Emergency telephone number

Association / Organisation	Hazrad (outside 24-hour emergency response provider)
Emergency telephone numbers	08 9418 4200 (24-hour) — answered by Hazrad on AGent's behalf
Other emergency telephone numbers	Poisons Information Centre 131 126 (Australia) / 0800 764 766 (NZ)

SECTION 2 Hazards identification

Classification of the substance or mixture

NOT classified as hazardous under the GHS criteria adopted by Safe Work Australia, and NOT a Dangerous Good under the ADG Code.

Poisons Schedule (SUSMP)	Not Scheduled (SUSMP — not listed)
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Classification

- Not classified as a hazardous chemical (GHS) — no hazard class allocated

Label elements

Hazard pictogram(s)	None allocated
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Signal word	None (not classified as hazardous)
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Hazard statement(s)

- None allocated — not classified as a hazardous chemical.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

- P264 — Wash hands thoroughly after handling (good practice).
- P280 — Wear eye protection where dust is generated (precautionary).

Precautionary statement(s) 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 (precautionary).
- Not Applicable — no mandatory label response statements (non-hazardous).

Precautionary statement(s) Storage

- P402+P404 — Store in a dry place, in a closed container.

Precautionary statement(s) Disposal

- P501 — Dispose of contents/container in accordance with local, state and federal regulations.

Other hazards

Aqueous solution. Decomposes on strong heating (after evaporation) emitting sodium / phosphorus oxides.

SECTION 3 Composition / information on ingredients**Substances**

See section below for composition of Mixtures.

Mixtures

CAS No.	% [weight]	Name	Classification
10124-56-8	10 – 30	Sodium hexametaphosphate	Not classified
7732-18-5	70 – 90	Water	Not classified

SECTION 4 First aid measures**Description of first aid measures****Eye Contact**

Check for and remove any contact lenses. Immediately rinse thoroughly with plenty of running water for at least 15 minutes, keeping eyelids open. If irritation persists, seek medical advice.

Skin Contact

Remove contaminated clothing and wash affected areas with soap and running water. If irritation occurs, seek medical advice. Launder clothing before reuse.

Inhalation

Move person into fresh air. If not breathing, give artificial respiration. If rapid recovery does not occur, seek medical advice.

Ingestion

Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Contact the Poisons Information Centre (Australia 131 126; New Zealand 0800 764 766).

Most important symptoms and effects, both acute and delayed

Low hazard. May cause mild mechanical irritation to eyes / skin / respiratory tract. Large ingestion may cause GI discomfort (nausea, vomiting, diarrhoea).

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Contact the Poisons Information Centre (Australia 131 126; New Zealand 0800 764 766).

First Aid facilities

Eye wash facilities and a safety shower must be available in any area where this product is handled.

SECTION 5 Firefighting measures

Extinguishing media

Non-combustible. Use extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Fire Incompatibility

Sodium and phosphorus oxides may form on heating to decomposition.

Advice for firefighters

Fire Fighting

Wear self-contained breathing apparatus (SCBA) where decomposition fumes are present.

Fire / Explosion Hazard

Non-combustible solid. Sodium / phosphorus oxide fumes on strong heating.

HAZCHEM Code	Not Applicable
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SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See Section 8 for personal protective equipment requirements.

Slippery when spilt. Wear basic PPE per Section 8. Avoid contact with skin and eyes.

Environmental precautions

Prevent product entering drains. If contamination of sewers / waterways occurs, advise local emergency services.

Methods and material for containment and cleaning up

Minor Spills

Contain the spill. Absorb with inert absorbent (sand, vermiculite, earth). Transfer to a labelled container for disposal. Small residues may be flushed to sewer with plenty of water (where permitted).

Major Spills

Contain and collect as above. Prevent run-off to waterways. Notify the Environmental Protection Authority if waterways are threatened.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling

Provide exhaust ventilation where dust forms. Avoid contact with skin and eyes; avoid inhalation of dust. Observe good personal hygiene; wash hands before eating.

Other information

Keep containers closed when not in use; check regularly for leaks. Store away from incompatible materials (see Section 10).

Conditions for safe storage, including any incompatibilities

Suitable container

Store in a cool, well-ventilated place. Keep containers closed. Protect from freezing. Store away from incompatible materials (see Section 10).

Storage incompatibility

Strong oxidising agents. Store away from incompatible materials (see Section 10).

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

Reference: Safe Work Australia, "Workplace Exposure Limits for Airborne Contaminants" (April 2024) by Safe Work Australia.

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
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SWA WEL 2024	Sodium hexametaphosphate (in solution)	Sodium hexametaphosphate, aqueous solution	No specific WEL assigned	Not assigned in SWA WEL 2024	Not assigned in SWA WEL 2024	No specific WEL for sodium hexametaphosphate. As an aqueous solution there is no airborne dust hazard; control any mist generated to good-practice limits.
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Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
Sodium hexametaphosphate	Not established (DOE PAC)	Not established (DOE PAC)	Not established (DOE PAC)
Ingredient	Original IDLH	Revised IDLH	
Sodium hexametaphosphate	Not established (NIOSH)	Not established (NIOSH)	

MATERIAL DATA

No whole-mixture occupational exposure data are available; manage on a per-component basis (above).

Exposure controls

Appropriate engineering controls

Apply the hierarchy of controls (WHS Reg 36). Where elimination or substitution is not reasonably practicable: provide local exhaust ventilation at points of vapour / mist generation; use closed transfer systems where possible; ensure general ventilation is adequate to keep airborne concentrations below the applicable WEL. Document the risk assessment supporting the chosen control hierarchy.

Individual protection measures, such as personal protective equipment

Eye and face protection

Safety glasses with side shields (AS/NZS 1336 & 1337) as a minimum. Chemical goggles and a face shield (AS/NZS 1336 & 1337) where splash potential exists.

Skin protection

See Hand protection below.

Hands/feet protection

Wear protective gloves and clean body-covering clothing (AS 2161, AS/NZS 2210). Chemical safety goggles / safety glasses with side shields (AS/NZS 1336 & 1337). Use a P1 / N95 particulate respirator where dust is generated (AS/NZS 1715 & 1716).

Body protection

See Other protection below.

Other protection

Long-sleeved chemical-resistant protective clothing and apron (PVC or equivalent)

Respiratory protection

If a risk assessment indicates an inhalation risk exists, wear a half-face or full-face respirator with appropriate filter (selection per AS/NZS 1715; respirator per AS/NZS 1716). Specific cartridge / canister recommendation to be confirmed during respiratory protection risk assessment per AS/NZS 1715.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Property	Value
Appearance	Clear to slightly hazy colourless liquid
Physical state	Liquid
Odour	Odourless
Odour threshold	No data available in source SDS
pH (as supplied)	5.8 – 7.3 (near-neutral)
Melting point / freezing point (°C)	Approx. 0 °C (freezing point of aqueous solution)

Initial boiling point and boiling range (°C)	Approx. 100 °C (water-based)
Flash point (°C)	Not applicable — aqueous, non-combustible
Evaporation rate	Similar to water
Flammability	Not flammable
Upper Explosive Limit (%)	Not applicable
Lower Explosive Limit (%)	Not applicable
Vapour pressure (kPa)	Approx. as water (~2.3 kPa at 20 °C)
Solubility in water	Miscible in water in all proportions
Vapour density (Air = 1)	Approx. as water vapour
Relative density (Water = 1)	1.05 – 1.25 (concentration-dependent)
Partition coefficient n-octanol/water	Not applicable — ionic
Auto-ignition temperature (°C)	Not applicable — non-combustible
Decomposition temperature (°C)	No data available in source SDS
Viscosity (cSt)	Low — similar to water
Molecular weight (g/mol)	Variable — polymeric (NaPO ₃) _n
Taste	Not applicable — do not taste
Explosive properties	None known
Oxidising properties	None known
Surface Tension (dyn/cm or mN/m)	No data available in source SDS
Volatile Component (% vol)	Water
Gas group	Not applicable
pH as a solution (1%)	Near-neutral
VOC g/L	0 g/L — inorganic phosphate solution; no VOC

SECTION 10 Stability and reactivity

Reactivity	No hazardous reactivity under normal conditions. See Section 10.
Chemical stability	Stable under normal conditions of use, storage and temperature.
Possibility of hazardous reactions	Hazardous polymerisation will not occur.
Conditions to avoid	Sources of ignition; direct sunlight; extreme temperatures; moisture.
Incompatible materials	See Section 7. Strong oxidising agents.
Hazardous decomposition products	Oxides of sodium and phosphorus on strong heating.

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled

Dust may cause respiratory irritation.

Ingestion

Large quantities may irritate the GI tract (nausea, vomiting, diarrhoea).

Skin Contact

May cause mild irritation (no irritation in OECD 404 test).

Eye

May cause mild irritation, redness and pain (no irritation in OECD 405 test).

Chronic

No component $\geq 0.1\%$ is an IARC carcinogen. Not a skin sensitiser (OECD 429).

Per-ingredient toxicity

Ingredient	TOXICITY	IRRITATION
Sodium hexametaphosphate	Oral LD50 (rat): > 2000 mg/kg; Inhalation LC50 (rat): > 3.6 mg/L (4 h)	Non-irritant (OECD 404/405); non-sensitiser (OECD 429)

Hazard checklist (whole-product classification basis)

Hazard endpoint	Classified	Hazard endpoint	Classified
Acute Toxicity	—	Carcinogenicity	—
Skin Irritation/Corrosion	—	Reproductive Toxicity	—
Serious Eye Damage/Irritation	—	STOT — Single Exposure	—
Respiratory or Skin Sensitisation	—	STOT — Repeated Exposure	—
Mutagenicity	—	Aspiration Hazard	—

Legend: ✓ = Data available to make classification; — = Data either not available or does not fill the criteria for classification.

Information on possible routes of exposure

May be absorbed by ingestion, inhalation of dust, eye and skin contact.

Additional Information

RTECS	OY3675000
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SECTION 12 Ecological information

Toxicity

Ingredient	Endpoint	Test Duration	Species	Value	Source
Sodium hexametaphosphate	LC50 (rainbow trout, <i>Oncorhynchus mykiss</i>)	96 h	Fish	> 100 mg/L (low toxicity)	AGent SDS
Sodium hexametaphosphate	EC50 (<i>Daphnia magna</i>) / algae	48 h / 72 h	Daphnia / algae	EC50 > 485 mg/L (<i>Daphnia</i>); > 100 mg/L (algae)	AGent SDS

Environmental precaution: Prevent entry to drains, waterways and soak-aways. Notify the relevant Environmental Protection Authority if waterway contamination occurs.

Persistence and degradability

Ingredient	Persistence: Water / Soil	Persistence: Air
Sodium hexametaphosphate	Hydrolyses to orthophosphate in water.	Not applicable — non-volatile solid.

Bioaccumulative potential

Ingredient	Bioaccumulation
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Sodium hexametaphosphate	Not expected to bioaccumulate (inorganic phosphate).
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Mobility in soil

Ingredient	Mobility
Sodium hexametaphosphate	Soluble and mobile in water; phosphate is a mobile nutrient.

Other adverse effects

Low toxicity; phosphate content may contribute to nutrient (eutrophication) load. Avoid large uncontrolled discharges.

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal

- Recycle wherever possible.
- Ensure waste disposal conforms to all relevant local, state and federal authority waste disposal regulations.
- Do NOT discharge into sewers or waterways.
- Empty containers should be returned via AGent's Closed Loop container return program where applicable.
- Whatever cannot be saved for recovery or recycling should be managed through an approved waste disposal facility.
- Dispose of in accordance with local, state and federal regulations.

SECTION 14 Transport information

Labels Required	Not Applicable — not regulated for transport
Marine Pollutant	No
HAZCHEM Code	Not Applicable

Land transport (ADG)

UN number	Not Applicable — NON-DANGEROUS GOODS
UN proper shipping name	Not Applicable — NON-DANGEROUS GOODS
Transport hazard class(es)	NON-DANGEROUS GOODS — not classified under the ADG Code for transport by road or rail.
Packing group	Not Applicable
Environmental hazard	Not Applicable
Special precautions for user	Not Applicable — not regulated for transport.
ERG / EIP number	Not assigned — NON-DANGEROUS GOODS.

Air transport (ICAO-IATA / DGR)

UN number	Not Applicable — NON-DANGEROUS GOODS
UN proper shipping name (lowercase)	Not Applicable — NON-DANGEROUS GOODS
ICAO/IATA Class	ERG Code: Not Applicable
Packing group	Not Applicable
Environmental hazard	Not Applicable
Special provisions	Not Applicable — not regulated for transport by air.
Cargo Only Packing Instructions	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.
Cargo Only Max Qty/Pack	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.
Passenger and Cargo Packing Instructions	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.
Passenger and Cargo Max Qty/Pack	Not Applicable — AGent does not transport this product by air. Refer to land transport (ADG) above for the applicable classification.

Sea transport (IMDG-Code / GGVSee)

UN number	Not Applicable — NON-DANGEROUS GOODS
UN proper shipping name	Not Applicable — NON-DANGEROUS GOODS
IMDG Class	NON-DANGEROUS GOODS
Packing group	Not Applicable
Environmental hazard	Not a Marine Pollutant
EMS Number	Not Applicable
Special provisions	Not Applicable — not regulated for transport by sea.

Transport in bulk according to MARPOL Annex II and the IBC Code

Not Applicable — AGent does not transport this product in bulk by sea.

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
Sodium Hexametaphosphate Solution	Not Applicable — AGent does not transport this product in bulk by sea.

Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Sodium Hexametaphosphate Solution	Not Applicable — AGent does not transport this product in bulk by sea.

SECTION 15 Regulatory information**Safety, health and environmental regulations / legislation specific for the substance or mixture**

SODIUM HEXAMETAPHOSPHATE (CAS 10124-56-8) is found on / assessed against the following regulatory lists:

- Australia Hazardous Chemical Information System (HCIS): Not classified as a hazardous chemical
- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Not listed
- Australian Inventory of Industrial Chemicals (AIIC): Listed
- IARC Group classification: Not classified
- Schedule 10 of the model WHS Regulations (prohibited / restricted carcinogens): Not listed
- Schedule 14 of the model WHS Regulations (health monitoring trigger): Not listed

Additional Regulatory Information

Subject to: Work Health and Safety (General) Regulations 2022 (WA); "Workplace Exposure Limits for Airborne Contaminants" (April 2024) by Safe Work Australia; Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code) current edition.

National Inventory Status

Country / Inventory	Listed
Australia (AIIC / AICS)	Yes
Canada (DSL)	Not applicable — AGent does not export this product
Canada (NDSL)	Not applicable — AGent does not export this product
China (IECSC)	Not applicable — AGent does not export this product
Europe (EINECS / ELINCS / NLP)	Not applicable — AGent does not export this product
Japan (ENCS)	Not applicable — AGent does not export this product
Korea (KECI)	Not applicable — AGent does not export this product
New Zealand (NZIoC)	Not applicable — AGent does not export this product
Philippines (PICCS)	Not applicable — AGent does not export this product
USA (TSCA)	Not applicable — AGent does not export this product
Taiwan (TCSI)	Not applicable — AGent does not export this product
Mexico (INSQ)	Not applicable — AGent does not export this product
Vietnam (NCI)	Not applicable — AGent does not export this product
Russia (FBEPH)	Not applicable — AGent does not export this product

Legend: Yes = All CAS declared ingredients are on the inventory; No = One or more CAS listed ingredients are not on the inventory (may be exempt or require registration).

SECTION 16 Other information

Revision Date	June 2026
Initial Date	June 2026 (AGent 2026 format)

SDS Version Summary

Version	Date of Update	Sections Updated
2026.01 (AGent 2026 format)	June 2026	Reformatted from the legacy V1.2 document (older Material-Safety-Data-Sheet-era format) to AGent 2026 SDS layout. §8 updated to SWA WEL 2024 (dust n.o.s.); removed superseded legacy abbreviations and exposure-standard references; AICS→AIIC. Classification unchanged (NON-HAZARDOUS CHEMICAL; NON-DANGEROUS GOODS).
V1.2 (legacy AGent format — older Material Safety Data Sheet)	Pre-2026	Older-format document. Declared NON-HAZARDOUS CHEMICAL / NON-DANGEROUS GOODS.

Other information

This SDS is intended as a hazard communication tool to assist in workplace Risk Assessment. It is not an Australian Standard or a definitive document.

Definitions and abbreviations

Abbreviation	Definition
ADG	Australian Dangerous Goods Code
AICS / AIIC	Australian Inventory of Industrial Chemicals (formerly AICS)
AUH	Additional / Australian Hazard statements
BCF	Bioconcentration Factor
BEI	Biological Exposure Index
CAS	Chemical Abstracts Service Registry Number
DNEL	Derived No Effect Level
DSEN	Dermal sensitiser (SWA WEL 2024 notation)
EC50	Effect Concentration causing effect in 50% of test population
EMS	IMDG Emergency Schedule
ERG / EIP	Emergency Response Guide / Emergency Information Panel (SAA/SNZ HB76)
ES	Exposure Standard (legacy term — now WEL)
GHS	Globally Harmonised System of Classification and Labelling
HCIS	Hazardous Chemical Information System (Safe Work Australia)
IARC	International Agency for Research on Cancer
IDLH	Immediately Dangerous to Life or Health
LC50	Lethal Concentration causing death in 50% of test population
LD50	Lethal Dose causing death in 50% of test population
LOAEL	Lowest Observed Adverse Effect Level
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OEL	Occupational Exposure Limit
OTO	Ototoxic (SWA WEL 2024 notation)
PC-STEL	Permissible Concentration — Short Term Exposure Limit
PC-TWA	Permissible Concentration — Time Weighted Average
PNEC	Predicted No Effect Concentration
RSEN	Respiratory sensitiser (SWA WEL 2024 notation)
SDS	Safety Data Sheet
Sk	Skin notation — absorption through the skin a significant route
STEL	Short Term Exposure Limit (15 min TWA)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TEEL	Temporary Emergency Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average (8 hr / 40 hr week)
WEL	Workplace Exposure Limit (Safe Work Australia, April 2024)

WHS	Work Health and Safety
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