



SAFETY DATA SHEET

PRODUCT NAME: Hama-Cide 700

SDS Issue Date: April 23

IDENTIFICATION

Product Name: Hama-Cide 700
Other Names: Cooling tower
Product Code: AHC70020
Uses: Biocide for the control of micro-biological growths in industrial cooling water system
Restrictions: Restricted to Workplace
Supplier: HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Te Rapa, Hamilton
Phone: 07 974 4971 Web: www.hamchem.nz Email: sales@hamchem.nz

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

HAZARD IDENTIFICATION



GHS Classifications

Acute Toxicity – Category 3 (oral)
Skin Corrosion – Category 1C
Serious Eye Damage – Category 1
Skin Sensitisation – Category 1
Hazardous to the Aquatic Environment (Acute) – Category 1
Hazardous to the Aquatic Environment (Chronic) – Category 1

Signal Word: DANGER

Hazard Statements

H301 – Toxic if swallowed
H314 – Causes severe skin burns and eye damage
H318 – Causes serious eye damage
H317 – May cause an allergic skin reaction
H400 – Very toxic to aquatic life
H410 – Very toxic to aquatic life with long-lasting effects

Prevention

P264 – Wash hands thoroughly after handling
P270 – Do not eat, drink or smoke when using this product
P260 – Do not breathe dusts or mists
P280 – Wear protective gloves/clothing and eye/face protection
P272 – Contaminated clothing should not be allowed out of the workplace
P273 – Avoid release to the environment

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Response

P301 + P310 – IF SWALLOWED: Immediately call a POISON CENTRE or Doctor.

P330 – Rinse mouth

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 (or shower)

P363 – Wash contaminated clothing before reuse

P333 + P313 – If skin irritation or rash occurs: Get medical advice/attention.

P304 + P340 – IF INHALED: Remove person to fresh air and keep 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.

P310 – Immediately call a POISON CENTRE or Doctor

P393 – Collect spillage

Storage

P405 – Store locked up

Disposal

P501 – Dispose of container/contents to an approved waste facility in accordance with local/regional/national regulations

COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Tetrakis(hydroxymethyl)phosphonium sulphate	55566-30-8	<30%
Water	7732-18-5	Balance

FIRST AID MEASURES

Ingested: NEVER attempt to induce vomiting. Do not give anything to drink. Always obtain medical attention immediately. Show this sheet to the doctor.

Eye: Immediately rinse with plenty of running water for a prolonged period (at least 15 minutes) whilst keeping the eyes wide open. Always obtain medical advice immediately, even if there are no symptoms. Show this sheet to the doctor.

Skin: Remove all contaminated clothing and footwear. Wash with soap and water. Wash immediately and thoroughly for a prolonged period (at least 15 minutes). In case of inflammation (redness, irritation etc.) obtain medical attention.

Inhaled: Move the person away from the contaminated area. Make the affected person rest. Obtain medical attention. Show this sheet to the doctor.

Aggravated Medical Conditions Caused by Exposure: Skin contact may aggravate existing skin disease.

First aid facilities: Emergency equipment and first-aid box with instructions readily available. Eye fountain. Safety shower.

Advice to doctor: All treatment should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically. No specific antidote available.

Further information: Establish a first aid action plan before using this product. Use appropriate protective equipment when treating a contaminated person. Use first aid techniques to restore vital functions. Place contaminated clothing in a sealed bag for disposal.

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For advice, contact a Poisons Information Centre (*New Zealand 0800 764 766*) or a doctor.

FIRE FIGHTING MEASURES

Extinguishing media: Suitable: All extinguishing agents can be used (water, foam, powders, carbon dioxide, sand...). Not suitable: None. If there is a fire close by, use suitable extinguishing agents.

Hazards from combustion products: Under fire conditions, toxic gases or vapours are released. On combustion or on thermal decomposition (pyrolysis), releases Sulphur oxides, Phosphorus oxides, Carbon oxides (CO + CO₂), Phosphine, Hydrogen.

Precautions for fire fighters and special protective equipment: Fire fighters to wear self-contained breathing apparatus (SCBA) and full protective clothing. If safe to do so, move undamaged containers from fire area. Stay upwind. Evacuate the personnel away from the fumes. If possible to do so safely, shut off fuel to fire. In case of fire close by, cool down the containers/equipment exposed to heat with a water spray.

Hazchem code: 2XE

Flammability: Not applicable.

ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with eyes, skin and respiratory system. If spillage occurs on the public highway, indicate the danger and notify the authorities (police, fire brigade). Use full protective clothing and equipment.

Environmental precautions: Prevent the product from spreading into the environment. Contain the spilled material by bunding.

Methods for cleaning up:

- **Recovery:** Recover as much of the product as possible. Absorb the product onto porous material. Transfer the product into a spare container, suitably labeled. Then take the emergency containers to an area reserved for subsequent recycling or disposal.
- **Neutralisation:** Absorb spillage with diatomaceous earth, sand or inert absorbent.
- **Cleaning/decontamination:** Wash non-recoverable remainder with large amounts of water. Recover the cleaning water for subsequent disposal.
- **Disposal:** Place in an appropriate container and dispose of the contaminated material at a licensed site.
- **Dangerous Goods – Initial Emergency Response Guide (IERG) (SAA/SNZ HB76)**
Guide 36: TOXIC LIQUID, ORGANIC, N.O.S

HANDLING & STORAGE

Safe handling advice: Technical measures: ventilation.

Measures: This product must only be handled by skilled operators. Avoid exposure: work in a well-ventilated area. Avoid forming aerosols. Avoid the formation of mists in the atmosphere. Do NOT handle without gloves. Obtain special instructions before use. (Read the technical data sheet). Handle and use in accordance with good occupational hygiene and safety practice. Do not mix with incompatible materials.

Safe storage use: Technical measures: Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

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Storage conditions: Recommended: Store in a cool, dry area.

Incompatible products: Strong reducing agents. Strong oxidizing agents. Strong acids. Strong bases.

Packaging: Polyethylene or polypropylene drums (High density).

Packaging materials: Recommended: Plastic materials (polyethylene, polypropylene) – (high density).

EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure standards: No value assigned for this specific material by Worksafe NZ. Exposure standard for dust not otherwise specified is 10mg/m³ (for inspirable dust) and 3mg/m³ (for respirable dust).

Engineering controls: Avoid splashes (appropriate clothing, protective screens on machines etc). Ensure good ventilation of the work station to keep airborne concentrations below exposure limits and as low as practicable. Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, local exhaust ventilation may be required.

Personal protective equipment:

Eye/face protection: Safety glasses with side shields, or splash-proof chemical goggles, and a full-face shield. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 – Eye Protectors for Industrial Applications.

Hand protection: Glove material: protective gloves made of PVC.

Thickness: 1.23mm

Breakthrough time: >480 minutes

Protection class: 6

Glove material: Nitrile protective gloves

Thickness: 1.23mm

Breakthrough time: >480 minutes

Protection class: 6

Use suitable chemical-resistant protective gloves. Protective gloves must be chosen accordingly to the function of the work station: other chemicals which may be handled, physical protection necessary (resistance to cutting, puncture, heat), dexterity required. The selection of gloves must be taken into account the extent and duration of use at the workstation. Reference should be made to AS/NZS 2162:1 Occupational protective gloves – Selection, use and maintenance.

Respiratory protection: Avoid breathing of vapours/mists. If mist is formed select and use respiratory protective device with a particle filter. Select and use respirators in accordance with AS/NZS 1715/1216. Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715/1716, or any other acceptable International Standard is recommended.

Body protection: Wear suitable long-sleeved clothing (i.e. shirts and pants) including a chemical resistant apron where clothing is likely to be contaminated. Consideration must be given both to durability as well as permeation resistance. It is advisable that a local supplier of personal protective clothing is consulted regarding the choice of material.

Workplace hygiene measures: Use clean and correctly maintained personal protective equipment. Keep personal protective equipment in a clean place, away from the work area. Always wash your hands

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immediately after handling this product, and once again before leaving the workplace. Do NOT eat or drink in the workplace.

Further information: The user is responsible for monitoring the working environment in accordance with local laws and regulations.

PHYSICAL & CHEMICAL PROPERTIES

Appearance: Blue/green
Specific Gravity: 1.06 @ 25°C
Solubility in water: 0.2% @ 25°C/77 F
Flammability limits: Non flammable
Boiling point: 100°C
Melting point: 100C
pH: Not applicable

STABILITY & REACTIVITY

Stability: Stable under normal conditions of use.

Hazardous decomposition products: Sulphur oxides, Phosphorus oxides, Carbon oxides (CO + CO₂), Phosphine, Hydrogen.

Hazardous polymerization: Will not occur.

Incompatibles: Strong bases. Strong reducing agents. Strong acids. Strong oxidizing agents.

Conditions to avoid: Decomposes above 160°C

TOXICOLOGICAL INFORMATION

Acute Health Effects

Swallowed: Harmful if swallowed. Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Eye: Risk of serious damage to eyes. Eye contact will cause stinging, blurring, tearing, severe pain and possible permanent corneal damage.

Skin: May cause sensitization by skin contact. May be irritating to the skin, with effects including redness and itchiness.

Inhaled: Toxic by inhalation. NOT considered to be irritating to the respiratory system.

Local effects: According to OECD method 404: Not irritating to rabbits on cutaneous application. (Unpublished internal reports).

According to OECD method 405: Extremely irritating to rabbits on ocular application. Risk of serious damage to eyes. (Unpublished internal reports).

Acute oral toxicity:

LC₅₀ inhalation (Rat) / 4h: 0.591 mg/l, for males and females. Toxic by inhalation. (Published data).

LD₅₀ skin (Rat): >2000 mg/kg, or males and females.

Not classified as harmful by contact with skin. (Unpublished internal reports).

LD₅₀ oral (Rat): 575 mg/kg, for males and females. Harmful if swallowed. (Unpublished internal reports).

Sensitisation: May cause sensitization on contact with skin. (Unpublished internal reports).

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Repeated dose toxicity: On ingestion, repeated dose toxicity (90 days), Rat, for males and females Hepatotoxic effects. No observed effect level (NOEL): 1 mg/kg/day. (Unpublished internal reports).

Specific effects:

- Carcinogenicity: Oral toxicity tests on rats and mice did not reveal any carcinogenic potential. (Published data).

Mutagenicity

Ames test (*S. typhimurium*) (with or without metabolic activation). Negative. (Unpublished internal reports).

Chromosomal aberrations:

Mammalian cells (CHO) In vitro (with or without metabolic activation). Positive. (Unpublished internal reports).

In vitro UDS test (Rat) Negative. (Unpublished internal reports).

Mouse lymphoma test/TK (with or without metabolic activation). Positive. (Unpublished internal reports).

Rodent dominant Lethal test (Rat) In vivo Negative. (Unpublished internal reports).

In vivo micronucleus test (Mouse) Negative. (Unpublished internal reports).

Product is not considered to be genotoxic.

- Reproductive toxicity: Fertility study (2 generations), Rat, no impairment of fertility has been observed on ingestion. (Unpublished internal reports).

Developmental toxicity study: on ingestion (Rat) NOEL, maternal toxicity: 15 mg/kg/day NOEL, foetal toxicity: 30 mg/kg/day. (Unpublished internal reports).

Developmental toxicity study: on ingestion (Rabbit) NOEL, maternal toxicity: 18 mg/kg/day NOEL, foetal toxicity: 18 mg/kg/day. Effects on development were observed. May cause harm to the unborn child. (Unpublished internal reports).

- Neurotoxicity: Screening biochemistry test kit for cholinesterase activity inhibition. The product does not induce inhibition.

ECOLOGICAL INFORMATION

Ecotoxicity:

Effects on the aquatic environment:

Fish: *Oncorhynchus mykiss* LC₅₀ 96h: 119 mg/l.

Fish: *Lepomis macrochirus* LC₅₀ / 96h: 93 mg/l.

Daphnia: *Daphnia magna* EC₅₀ / 48h: 19.4 mg/l.

Fresh water algae: *Pseudokirchneriella subcapitata* EC₅₀ / 96h: 0.20 mg/l.

Bacteria: Activated sludge EC₅₀ / 3hr(s): 24 mg/l.

Persistence/degradability:

Ultimate aerobic degradability:

Simulation study: 70% biodegradation after 21 days. (US EPA FIFRA, Subdivision N, section 162-4).

Readily biodegradable.

Anaerobic biodegradation:

Simulation study: 60% biodegradation after 30 days. (US EPA FIFRA, Subdivision N, section 162-3).

Persistence: Product is not persistent.

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Mobility:

Adsorption/desorption: Log Koc = 2.2

Moderately mobile in soils

Expected behavior of the product. Ultimate destination of the product: WATER.

Degradability:

Abiotic degradation

- Other physic-chemical reactions: Product is easily oxidizable in aqueous media in dilute solutions.

Bioaccumulation: Octanol/water partition coefficient. Not potentially bioaccumulable.

Further information:

M factor = 1 [according to the Globally Harmonized System (GHS) and the 2nd Adaptation to Technical Progress of Directive 1999/45/EC]

DISPOSAL CONSIDERATIONS

Residues from product: Do NOT discharge waste into drains. Dispose of in accordance with relevant local regulations. Dispose of this product as hazardous waste. Incinerate at a licensed installation.

Contaminated packaging: Decontamination/cleaning: Take preliminary precautions based on the dangerous properties of the product. Empty the packaging completely prior to disposal.

Destruction/disposal: Depending on local facilities, recycle or incinerate the packaging at an authorized site.

NOTE: The user's attention is drawn to the possible existence of local regulations regarding disposal.

EPA Hazardous Waste - YES

TRANSPORT INFORMATION

UN Number:	2810
Proper Shipping name:	TOXIC LIQUID, ORGANIC, N.O.S
Dangerous Goods Class:	6.1
Subsidiary Risk:	Nil
Packing group:	III
Hazchem Code:	2X

REGULATORY INFORMATION

HSNO Classifications: 6.1C (o), 8.2C, 8.3A, 6.5B, 9.1A

EPA Approval: HSR002686 – Water Treatment Chemicals (Acutely Toxic, Corrosive) Group Standard 2020

Restrictions: This product is Restricted to Workplace only, due to the Acute Toxicity – Category 3 classification under the Hazardous Substances (Hazardous Property Controls) Notice 2017

OTHER INFORMATION

End of SDS.