

M C P S E R V E R

N O C O D E

C L O U D H O S T E D

Detergent Load Calculator MCP

Track your detergent stock and plan laundry cycles with precision.

Detergent Load Calculator MCP handles your laundry math. It lets your AI client track how much detergent you have left, how many loads that volume supports, and when you'll run out based on your daily habits. It also checks if your dosage is safe for your specific machine type.

A+

Quality Score 100/100

laundry

detergent

inventory

planning

household-management



SCAN TO VIEW

The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest
managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.

— Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256

Encryption at rest

Ed25519

PKI vault signatures

24h TTL

Ephemeral session keys

V8 Isolate

Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT`https://edge.vinkius.com/{token}/mcp`

Claude



Cursor



VS Code



Windsurf



Grok



Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

06 — Honeypot Trap System

Phantom credentials are injected into isolated environments. If a honeypot is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1)
Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

Get started at cloud.vinkius.com — connect your AI agent in under 60 seconds.

Detergent Load Calculator MCP

4 tools available

Cloud-hosted on Vinkius

Stop guessing how much detergent you have left in the cabinet. This MCP gives your AI agent the ability to manage laundry inventory and plan your cleaning schedule. You can check your current stock levels or figure out exactly how many full cycles a specific bottle will cover. If you're worried about using too much or too little, the tool checks your dosage against safety and efficacy standards for your machine. It even projects your future consumption, so you know exactly how many days of service you have left before you need to buy more. It's a practical way to keep your household or facility running without unexpected shortages.

Core Capabilities

01 — Inventory Tracking

Your agent monitors how much detergent is currently in stock.

03 — Usage Projections

Your agent predicts the number of days until you run out of stock.

02 — Load Calculation

The AI determines the total number of cycles a volume of detergent can support.

04 — Dosage Verification

The tool checks if your detergent amount meets safety standards for your machine.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/detergent-load-calculator — connect your AI agent in three steps.

- 01 Connect your preferred MCP-compatible client to Vinkius.
- 02 Provide your current detergent volume and usage habits to your agent.
- 03 Ask the agent to calculate loads, check dosage, or project future stock.
- 04 Receive immediate, actionable data to plan your next purchase or laundry day.

Connect the MCP to your AI client to start managing your laundry supplies.

Built For

This MCP is for anyone managing laundry supplies for a household or a professional facility.

Household Managers

They use the AI to track cleaning supplies and prevent running out of detergent.

Facility Managers

They hand off inventory tracking and consumption forecasting to their AI agent.

Laundromat Operators

They use the tool to manage detergent stock and plan replenishment cycles.

What Changes When You Connect

- 01

Prevents sudden detergent shortages through consumption forecasting.
- 02

Ensures machine safety by validating dosage amounts.
- 03

Simplifies inventory management by converting volume into laundry cycles.

Real-World Applications

Stock Replenishment

Predict exactly when you need to buy more detergent based on how many loads you do daily.

Machine Safety

Check if a specific dose is appropriate for high-efficiency or standard machines.

Budgeting

Calculate how many loads a specific purchase will provide to understand your cost per load.

Daily Planning

Determine if you have enough detergent left to finish a planned laundry day.

Patterns to Avoid

Ignoring machine compatibility

❌ AVOID

You tell your agent to use a generic amount of detergent for every wash regardless of the machine type.

✓ INSTEAD

Use ``validate_dosage_standards`` to ensure the dose is safe for your specific machine.

Manual stock counting

❌ AVOID

You spend time checking the cabinet every morning to see if you have enough soap for the day.

✓ INSTEAD

Let your agent handle the math by using ``get_inventory_status`` to see how many cycles remain.

Reactive purchasing

❌ AVOID

You realize you're out of detergent only when you start a load and find an empty bottle.

✓ INSTEAD

Run ``simulate_consumption_projection`` to see exactly how many days of service you have left before buying more.

The Right Fit

Connect this MCP if you manage laundry for a household or a professional facility. If you only do one load of laundry a month, you don't need this. The decision comes down to whether you need to forecast consumption to prevent sudden shortages.

Detergent Load Calculator Tools

These tools let your agent track detergent stock, calculate load capacities, and predict when you'll run out.

#	TOOL	DESCRIPTION
01	get_inventory_status	Checks your remaining detergent stock to see how many laundry cycles it will cover.
02	get_load_capacity	Calculates the total number of full laundry loads possible with a specific volume of detergent.
03	simulate_consumption_projection	Predicts how many days of laundry service you have left based on your daily usage patterns.
04	validate_dosage_standards	Verifies if your intended dose per load is safe and effective for your machine type.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U How many loads can I do with 500ml of detergent if I use 40ml per load?



You can perform 12 complete laundry loads, with 20ml of detergent remaining.

U Is 30ml of detergent okay for a high-efficiency machine?



Yes, 30ml is within the recommended range for high-efficiency machines.

U I have 2000ml of detergent, use 50ml per load, and do 2 loads a day. How many days will it last?



Your detergent will last for 20 days.

Frequently Asked Questions

01 How does this MCP help with laundry?

It allows your AI client to calculate how many loads your detergent will last, check if your dosage is safe for your machine, and predict when you will run out of stock.

02 Can I use this with Claude or Cursor?

Yes, you can connect this MCP to any MCP-compatible client like Claude, Cursor, or Windsurf through the Vinkius platform.

03 Does it work for high-efficiency machines?

Yes, the tool includes a feature to validate that your detergent dosage falls within the safe and effective range for standard and high-efficiency machines.

04 How do I know when to buy more detergent?

You can use the consumption projection tool to see how many days of service remain based on your specific daily usage habits.

05 Do I need to host the MCP myself?

No, Vinkius hosts and manages the MCP for you, so it is ready to use as soon as you connect your client.

06 How do I know if my detergent dose is safe for my machine?

You can use the `validate\_dosage\_standards` tool to check if your dose is within the recommended range for standard or high-efficiency machines.

07 Can I predict when I will run out of detergent?

Yes, the `simulate\_consumption\_projection` tool allows you to estimate the number of days remaining based on your current volume and daily laundry habits.

08 How many loads can I get from 1000ml of detergent if each load uses 50ml?

By using `get\_load\_capacity` with a total volume of 1000 and a dose of 50, you will find you can perform 20 complete loads.

Go Live in 60 Seconds

Get your connection token from cloud.vinkius.com, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

`https://edge.vinkius.com/[TOKEN]/mcp`

CLIENT	WHERE TO CONFIGURE
 Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
 Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
 VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add <code>"detergent-load-calculator": { "url": "..." }</code>
 Windsurf	MCP Settings → <code>mcp_settings.json</code> → Add endpoint URL
 ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
 Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

-  Ask ChatGPT 
-  Ask Claude 
-  Ask Perplexity 
-  Ask Gemini 
-  Ask Grok 

READY TO CONNECT

Detergent Load Calculator is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and
start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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DOCUMENT INFORMATION

Generated	September 2026
MCP Server	Detergent Load Calculator MCP
Server ID	01a0caa0-48a4-718f-aaa9-86012782741e
Platform	Vinkius Cloud for AI Agents
Endpoint	https://edge.vinkius.com/{token}/mcp

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