MCP SERVER | NO CODE | CLOUD HOSTED

Blood Alcohol Content Calculator MCP for AI Agents

Determine Legal Drinking Limits and Impairment Risk While Traveling

Blood Alcohol Content Calculator estimates your current Blood Alcohol Concentration (BAC), predicts when you'll sober up, checks legal drinking limits across different US states and European countries, and analyzes potential drug interactions. Your AI client uses this MCP to quickly assess impairment risks after drinking.

A+ Quality Score 100/100

bac | alcohol | safety | health | legal

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vinkius.com/mcp/blood-alcohol-content-calculator

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.

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.

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.

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	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	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.

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.

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.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken 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.

Agent Activity

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

FinOps

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

Tool Health

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

Firewall & DLP

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

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.

Blood Alcohol Content Calculator MCP

4 tools available
Cloud-hosted on Vinkius

This MCP gives your agent the data needed for immediate safety assessments related to alcohol consumption. You can run calculations based on weight, gender, drinks consumed, and how much time has passed to get an estimated BAC reading. Need to know if you're clear to drive? Use the tool to check legal driving thresholds in specific US states or European nations. The system also lets you understand what a given BAC level means for your physical state—from loss of coordination to impaired judgment. Plus, it helps assess potential dangers by analyzing interactions between alcohol and various medications. Connecting this MCP through Vinkius gives your agent access to crucial health and legal data points when you need them most.

Core Capabilities

01 — Estimate BAC and sobriety time

The system calculates your current estimated blood alcohol concentration based on physical attributes, drinks consumed, and elapsed time.

02 — Check state legal drinking limits

It retrieves the specific legal BAC threshold for driving in a selected jurisdiction, whether it's a US state or an international country.

03 — Determine impairment symptoms

The tool describes the physical effects and risks associated with reaching a particular BAC level.

04 — Analyze drug-alcohol interactions

You can assess potential dangers of mixing alcohol with specific medications to understand overall risk.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/blood-alcohol-content-calculator** — connect your AI agent in three steps.

01 First, provide your AI client with the necessary inputs: your weight, gender, details on drinks consumed, and the time elapsed since consumption.

02 Next, the system processes these variables to generate a precise BAC estimate and calculate your projected sobriety timeline. You can then check local legal limits for driving in that area.

03 Finally, you get back actionable data, including impairment warnings or specific drug interaction risks, allowing you to make informed decisions.

The bottom line is it gives you immediate, calculated risk assessment metrics based on your personal consumption details and the laws of your location.

Built For

Anyone needing reliable, real-time health and safety assessments related to alcohol use benefits from this MCP. This is critical for individuals planning travel, those managing substance use disorder, or anyone who needs quick legal compliance checks.

Traveler/Commuter

Uses the tool before driving after drinking to confirm local legal BAC limits and assess immediate impairment risk.

Health Advisor

Consults the MCP when advising patients on drug interactions, especially those involving alcohol consumption.

Safety Officer

Quickly checks current sobriety status or potential risks following an incident to ensure safety protocols are followed.

What Changes When You Connect

01 Know exactly when you'll be sober. The `calculate_bac_metrics` tool estimates your BAC and predicts the time until it hits zero, giving you a clear timeline.

02 Stay compliant with local laws. Use `get_jurisdiction_limit` to check legal driving thresholds for specific states or countries before you hit the road.

03 Understand the physical danger. The `get_impairment_details` tool explains what loss of coordination, slowed reaction times, and impaired judgment mean at various BAC levels.

04 Prevent adverse reactions. Run an analysis with `analyze_medication_risk` to spot dangerous drug interactions before you consume alcohol.

05 Focus on outcomes, not guesswork. By integrating this MCP into your workflow via Vinkius, your agent provides immediate, data-backed safety reports.

Real-World Applications

Planning a Cross-State Road Trip

A traveler asks their AI client what the legal limit is in three different states. The agent uses `get_jurisdiction_limit` to provide all three specific BAC thresholds, ensuring the user knows which laws apply immediately upon crossing state lines.

Post-Event Safety Check

After a night out, the user inputs their weight and consumption details. The agent uses `calculate_bac_metrics` to give an estimated BAC score (e.g., 0.021) and predicts they won't be safe to drive for another four hours.

Managing Medication Schedules

A person with a chronic condition needs advice on whether drinking is okay. The agent uses `analyze_medication_risk` comparing their specific meds against alcohol, flagging high-danger interactions immediately.

Assessing Acute Impairment Levels

The user asks what physical symptoms are associated with a 0.15 BAC reading. The agent runs `get_impairment_details` and reports significant loss of coordination, preventing dangerous activities.

Patterns to Avoid

Guessing sobriety time

✗ AVOID

Relying on gut feeling or general advice about 'waiting a few hours' to determine if you are safe enough to operate machinery.

✓ INSTEAD

Use the `calculate_bac_metrics` tool. Input your exact details, and the MCP provides a precise estimate of both current BAC and time until sobriety.

Ignoring local laws

✗ AVOID

Assuming that because you know the limit in one state (e.g., 0.08%), it applies everywhere you travel.

✓ INSTEAD

Always use `get_jurisdiction_limit`. You must specify your current or intended location to get accurate legal thresholds for driving.

Mixing meds and alcohol blindly

✗ AVOID

Drinking on a whim without checking if it conflicts with prescription pain relievers or anti-anxiety medications.

✓ INSTEAD

Before drinking, always run `analyze_medication_risk`. This tool checks for known dangerous interactions between your specific drugs and alcohol.

The Right Fit

Use this MCP if safety and legal compliance are the top priority. Specifically, use it when you need to know a concrete number—like an estimated BAC or a state-specific limit—rather than general advice. This is perfect for travel planning or medical consultation where precision matters.

Don't use this if you just want generalized health tips about drinking; this MCP requires specific data (weight, meds, location) to function. If your need is simply 'how much alcohol do I usually drink?' and you don't care about the legal implications, a simple calculator might suffice. But if your decision involves driving or drug safety, this specialized tool is necessary.

Blood Alcohol Content Calculator: Checking Legal Drinking Limits for Travel

Before connecting to an AI agent, the manual process of checking local BAC limits is a nightmare. You have to Google 'BAC limit California', then search again for 'BAC limit New York,' and you're constantly cross-referencing state or national laws just to know if driving is safe. It’s slow, error-prone, and you can miss the specific jurisdiction.

With this MCP, your agent takes care of that instantly. You ask it for the legal BAC limit in multiple locations (like USA-CA and UK), and it returns a precise list of thresholds without you having to switch tabs or search query dozens of times.

Blood Alcohol Content Calculator: Assessing Drug Interaction Risks

If you're managing complex medication schedules, manually cross-referencing alcohol consumption against a list of prescriptions is tedious. You have to check drug leaflets and call pharmacists just to confirm if mixing two things poses a risk.

Now your agent can analyze this potential danger instantly. By using the medication risk analysis tool, you get an immediate assessment of how drinking might interact with specific drugs, giving you critical information before any mistake happens.

Blood Alcohol Content Calculator: 4 Tools for Safety Metrics

Use these tools to calculate your estimated blood alcohol concentration, verify local driving laws, determine impairment symptoms, and check medication safety.

#	TOOL	DESCRIPTION
01	`calculate_bac_metrics`	Calculates your current estimated BAC and predicts the time remaining until you reach zero BAC.
02	`get_impairment_details`	Provides a detailed description of physical symptoms linked to a specific blood alcohol concentration level.
03	`get_jurisdiction_limit`	Retrieves the legal BAC limit for driving in a specified US state or country.
04	`analyze_medication_risk`	Assesses potential health dangers when combining alcohol with specific medications.

See It in Action

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

U I weigh 180 lbs and finished a few drinks over two hours ago. What's my BAC and when can I drive?

BAC Assessment Report

- **Estimated Current BAC:** 0.023%
- **Time to Zero BAC:** Approximately 3.5 hours.

Please remember that this is an estimate. Always prioritize safety.

U What's the legal limit in New Mexico vs Texas for driving?

Legal BAC Limits by Jurisdiction

STATE	LEGAL LIMIT
New Mexico (USA-NM)	0.08%
Texas (USA-TX)	0.08%

Note: Always check the latest state regulations.

U If I take medication X and drink beer, what are the risks?

Medication Interaction Analysis

High Risk Detected

Mixing Alcohol with Medication X can lead to:
- Severe drowsiness (Sedative effects).
- Impaired motor function.
- Difficulty breathing.

Please consult a medical professional immediately.

Frequently Asked Questions

01 **How accurate is the Blood Alcohol Content Calculator for AI Agents?**

The calculator provides an estimated BAC based on accepted physiological metrics, which is highly useful for immediate risk assessment. It's designed to give you a quick, data-driven understanding of your current state, but it should never replace professional medical advice.

02 **Can I use this MCP to check drinking laws in countries outside the US?**

Yes, you can. The tool includes legal thresholds for various international locations beyond just U.S. states, making it useful for global travelers planning their routes.

03 **What if I'm taking multiple medications? Can the Blood Alcohol Content Calculator handle that?**

The system is designed to analyze drug interactions for specific combinations of alcohol and medication. You should list all drugs you are currently taking so it can provide a thorough risk assessment.

04 **Is this MCP better than just Googling the BAC limit for driving?**

Absolutely. This tool gives you instant, structured data in one place. Instead of sifting through articles to find the legal percentage, your agent pulls the exact required number from its database.

05 **Does the Blood Alcohol Content Calculator help me know when I'll be sober?**

Yes, it estimates both your current BAC and projects a time frame for you to reach zero. This helps you plan how long you need to wait before engaging in high-risk activities like driving.

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 `"blood-alcohol-content-calculator": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → 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

Blood Alcohol Content 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 →

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