Manufacturers API Documentation (Enterprise SEO Edition): Advanced Schema.org, JSON-LD & Global Canonicalization Guide

Overview

The **Manufacturers API** is a **RESTful, enterprise-grade, SEO-optimized API** designed for global eCommerce ecosystems, product catalog syndication, and manufacturer-to-retailer integrations.

This API provides **programmatic access** to manufacturer profiles, product taxonomies, certifications, compliance metadata, and structured data enriched with **Schema.org, JSON-LD, and OpenGraph tags** for **search engine discoverability**.

It is built with **SEO-first principles**, ensuring that content syndication across multi-channel commerce (B2B, B2C, D2C) remains **indexable, canonicalized, and optimized for knowledge graphs**.

Key Features

- **Authentication & Security**: OAuth 2.0 + HMAC for enterprise-grade authentication.

- **SEO-Optimized Structured Data**: All responses enriched with schema.org/Product, schema.org/Organization, and JSON-LD markup.

- **Internationalization**: Full support for **hreflang tags**, ISO 639-1 language codes, and Unicode-compliant metadata.

- **Scalable Catalog Syndication**: Fetch **millions of SKUs** with cursor-based pagination and **idempotency-safe upserts**.

- **Canonicalization & Deep Linking**: API ensures consistent canonical URLs across regional sites, eliminating **duplicate content penalties**.

- **Observability & Analytics**: Built-in support for **SEO log analysis**, API performance metrics, and structured event streams (OpenTelemetry).

Base URL

https://api.enterprise-seo-manufacturers.com/v1/

Authentication

This API uses **OAuth 2.0 Bearer Tokens** with **HMAC request signing** for enhanced trust and **non-repudiation**.

Request Header Example

Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6Ikp...

X-Idempotency-Key: b1f93e72-9d48-11ee-b9d1-0242ac120002

X-Signature: 1a9c58f3e921a5...

Endpoints

1. Get Manufacturer Profile

GET /manufacturers/{manufacturerId}

Parameters

Name	Type	Required	Description
manufacturerId	string	☐	Unique manufacturer identifier (UUID v4)
lang	string	☐	Language code (ISO 639-1), supports SEO internationalization via hreflang
fields	string	☐	Comma-separated list of fields to fetch (for structured data minimization)

Response (SEO-Optimized JSON-LD)

```
{
  "@context": "https://schema.org",
```

```json
  "@type": "Organization",

  "name": "Acme Manufacturing Ltd.",

  "url": "https://www.acme.com",

  "logo": "https://cdn.acme.com/logo.svg",

  "sameAs": [

    "https://www.wikidata.org/wiki/Q123456",

    "https://www.linkedin.com/company/acme"

  ],

  "manufacturerId": "f27e6b12-92c3-4e23-bc34-73e8f9e4e212",

  "canonicalUrl": "https://www.acme.com/manufacturer/acme",

  "hreflang": [

    {"lang": "en", "url": "https://www.acme.com/en/manufacturer/acme"},

    {"lang": "fr", "url": "https://www.acme.com/fr/manufacturer/acme"}

  ],

  "seoMetadata": {

    "metaTitle": "Acme Manufacturing - Global Manufacturer of Industrial Parts",

    "metaDescription": "Discover Acme Manufacturing, a global leader in industrial solutions...",

    "structuredKeywords": ["industrial parts", "OEM manufacturer", "supply chain SEO"]

  }

}
```

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2. Search Manufacturers (Faceted, SEO-Driven)

GET /manufacturers/search

Query Parameters

Parameter	Type	Required	Description
q	string	☐	Full-text search query (semantic search with TF-IDF + BERT embeddings)
category	string	☐	Product category filter (taxonomy-driven, SEO-friendly faceted navigation)
location	string	☐	Geolocation filter (ISO 3166-1 alpha-2 country codes)
pageToken	string	☐	Cursor-based pagination token
limit	int	☐	Number of results (default: 50, max: 500)

Response Example

```
{
  "results": [
    {
      "manufacturerId": "f27e6b12-92c3-4e23-bc34-73e8f9e4e212",
      "name": "Acme Manufacturing Ltd.",
      "canonicalUrl": "https://www.acme.com/manufacturer/acme",
      "seoRank": 98.7,
      "structuredData": {
        "@context": "https://schema.org",
        "@type": "Organization"
      }
    }
  ],
  "nextPageToken": "eyJpZCI6IjIwMTUtMDEtMDFUMDA6MDA6MDBaIn0="
}
```

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3. Bulk Sync Manufacturers (ETL-Optimized)

POST /manufacturers/bulkSync

Request Example

```
{
  "upsert": [
    {
      "manufacturerId": "f27e6b12-92c3-4e23-bc34-73e8f9e4e212",
      "name": "Acme Manufacturing Ltd.",
      "canonicalUrl": "https://www.acme.com/manufacturer/acme",
      "seoMetadata": {
        "metaTitle": "Acme Manufacturing | OEM Industrial Parts Supplier",
        "metaDescription": "Trusted by Fortune 500 companies..."
      }
    }
  ]
}
```

Notes

- Supports **idempotency** for safe retries.
- Optimized for **ETL pipelines** in enterprise data lakes.
- Ensures **canonicalized metadata propagation** across distributed environments.

Rate Limiting

- Standard Tier: **1,000 requests/minute**
- Enterprise Tier: **10,000 requests/minute with burst scaling**

- SEO crawler-friendly allowances via X-Robots-Tag compliance.

Error Handling

Code	Meaning	SEO Impact & Resolution
400	Bad Request	Ensure structured query syntax follows OpenAPI spec.
401	Unauthorized	Refresh OAuth token, verify HMAC signature.
404	Manufacturer Not Found	Implement fallback canonical URL mapping.
429	Too Many Requests (Rate Limited)	Use exponential backoff, avoid SEO crawler overloading.
503	Service Unavailable	Retry-safe; consider caching for SEO freshness preservation.

Advanced SEO Guidelines

- **Schema.org Compliance**: All entities conform to Organization, Product, and Offer schemas.

- **Canonicalization**: Manufacturers always return a single **canonical URL**.

- **Internationalization**: Automatic hreflang generation prevents duplicate content across locales.

- **Log Analysis**: API logs structured for SEO log-file analysis (crawl budget, indexation monitoring).

- **Knowledge Graph Optimization**: Responses enriched with sameAs (Wikidata, LinkedIn, Crunchbase).

Best Practices for Enterprise SEO Integration

1. **Cache Invalidation at Edge**: Ensure product/manufacturer data freshness for **real-time SERP optimization**.

2. **Structured Data Monitoring**: Run automated **Rich Results Test API** validations during ETL pipelines.

3. **Idempotent Metadata Upserts**: Prevent keyword cannibalization during bulk updates.

4. **Crawl Budget Efficiency**: Optimize API-driven sitemaps to avoid wasted Googlebot hits.

5. **E-A-T Alignment**: Manufacturer data linked with certifications, whitepapers, patents, and industry authority signals.