



SAP Ariba 

Feature At a Glance

Risk Exposure API

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Feature at a Glance

Introducing: Risk Exposure API

Ease of implementation  High touch
Geographic relevance  Global

Customer challenge

Today, purchasers find it challenging to find suppliers with least risk during the procurement process.

Supplier Risk calculates the Risk exposure, but this information is not available across the procurement process.

Solution area

- SAP Ariba Supplier Risk
- SAP Ariba APIs
- SAP Ariba developer portal

Meet that challenge with SAP Ariba

The Risk Exposure API will make the supplier overall risk exposure and category exposure available outside of the Supplier Risk application. This will enable end users to use Risk Exposure as a part of the procurement decision process.

Implementation information

This feature is automatically on for all customers with the applicable solutions but requires **customer configuration**.

Experience key benefits

The Risk Exposure API allows Buyers to regularly request updates for the Supplier overall and category exposure information which can be integrated into procurement processes and products of the buyer's choice. For example, including Risk exposure into the Ariba suite in supplier onboarding, sourcing or invoicing. Risk exposure information may also be beneficial in other data downloads.

Having the risk exposure information available and integrated will help end users make more informed business decisions.

Prerequisites and Restrictions

- The customer must have an entitlement to SAP Ariba Supplier Risk.
- This API can be used to get overall and category risk exposure for only one supplier per request.
- The Risk Exposure API doesn't push changes to the risk exposure levels for overall and category into SAP Ariba Supplier Risk.
- The Risk Exposure API does not include risk incidents or contributing factors.

Step 1: Risk categories and Configure Risk Exposure

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Risk Categories

Risk categories

 Regulatory and legal*,**	 Environmental and social*,**	 Financial*,**	 Operational**
<ul style="list-style-type: none">• Sanctions and watch lists• Bribery and corruption• Legal• IT security• Fraud• Anticompetitive behavior• Corporate crime	<ul style="list-style-type: none">• Human rights• Labor issues• Health and safety• Environmental issues• Conflict minerals• Unethical practice• Decertification• Ethical Practices• Country risk	<ul style="list-style-type: none">• Bankruptcy• Insolvency• Mergers and acquisitions• Divestiture• Credit rating downgrade• Downsizing• Liquidation• Tax issue• Financial data elements	<ul style="list-style-type: none">• Natural disasters and accidents• Plant disruption or shutdown• Labor issues• Product issues• Project delays• Pandemic events

*Optional third-party add – on available for: Regulatory and Legal, Environmental and Financial risk Categories

** Public API is called, Risk Category Information API and includes 15 custom fields across the 4 Risk categories and a specific end point to bring in sanctions/ watchlist screening results which is available for the legal and regulatory risk category

SAP Ariba Supplier Risk supports 4 comprehensive Risk categories . These risk categories can be used to identify and aggregate risks identified by external data sources.

This risk categories are defined as followed.

- **Legal and regulatory** – provides information that describes supplier activity that relates to the regulatory and compliance obligations that help to uphold and relate to lawful legal requirements.
- **Environmental & Social** – provides information that describes supplier behavior related to environmental protection, labor issues, ethical practices. This information can be very important in protecting your reputation when evaluating the practices of a supplier.
- **Operational-** provides information related to activity that will impact the day to day operations of your business that may not be controlled by your suppliers.
- **Financial** – provides information that may describe the actions that can affect the financial stability of the suppliers you are doing business with.

The external data comes from various sources such as default providers, add-on licensed providers or public API's which can include 15 custom fields and/or compliance data.

Supplier Risk segments and aligns the supplier information to each of the risk categories and presents the information in a supplier profile which helps to monitor the activity of the supplier and ultimately determine the health of the supplier.

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Risk Exposure configuration

The screenshot displays the SAP Risk Exposure configuration interface, divided into three numbered sections:

- 1. Data sources:** A sidebar menu on the left lists various data sources. The 'Default sources' section includes 'Natural disasters', 'Corporate data', 'Country risk', and 'Adverse media', all of which are checked. The 'Licensed sources' section includes 'Financial', which is also checked.
- 2. Category weights:** A table showing the contribution of different risk categories to the overall risk exposure score. The categories and their weights are: Environmental & social (15), Regulatory & legal (15), Operational (15), Financial (55), and Total (must equal 100) (100).
- 3. Field configurations:** A table showing the configuration of fields used in the risk exposure calculation. The table is divided into 'Standard fields', 'Licensed fields', and 'Custom fields'. Each field has a 'Field source', 'Field', 'Risk category', 'Field type', 'Field value', 'Weight', 'Threshold order', 'Less than', 'Greater than', and 'Exposure override' settings.

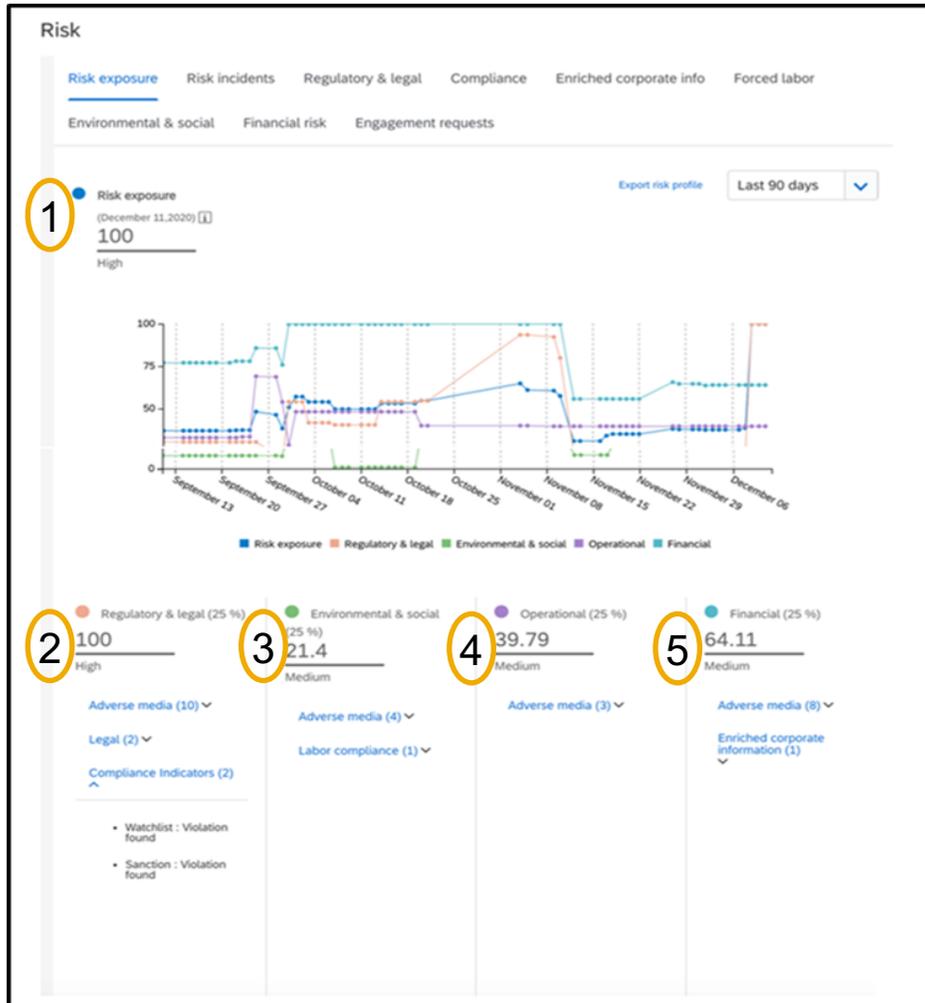
It is recommended that the Supplier Risk Manager confirm that the Risk configuration is set and activated to the preferences based on the customer's risk appetite. Some customers may prefer the out of the box risk configuration settings.

1. Verify that all available data sources are enabled.
2. Category weights are set to the preferred distribution.
3. Field settings are configured to the preferred settings for the enabled data sources.

Proper risk configuration settings will provide insight to the contributing factors of the Risk exposure score that can be used for other procurement decisions and processes.

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Introducing: Risk Exposure API



- This API includes exposure information for Overall and Category.
- A supplier's *risk exposure* is a value that designates the supplier's level of risk.
- Risk exposure configurations are customized in the Supplier Risk application and is based on a range of 1-100.
- The Risk exposure API will provide the level of risk exposure using the configuration that was set in the buyers Supplier Risk realm. The API will use a range of 1-4.
- The levels will be numeric:
 - 4 = High
 - 3 = Medium
 - 2 = Low
 - 1 = Unknown
- A risk exposure of 4 (High) is the most Risky, while exposure of 2 (Low) is least risky.
- If a supplier's risk exposure shows as 1 (unknown), this means there is not enough information to calculate the exposure or there has not been any recent updates to the contributing factors to calculate the current risk exposure.

In the example to the left the Risk Exposure API information for this supplier will be as follows:

1. **Overall Risk Exposure** is 100/High. The Risk Exposure API will provide 4/High
2. **Regulatory & Legal** is 100. The Risk Exposure API will provide 4/High
3. **Environmental & social** is 21.3/Medium. The Risk Exposure API will provide 2/Medium
4. **Operational** is 39.79/Medium. The Risk Exposure API will provide 3/Medium
5. **Financial** is 64.11/Medium. The Risk Exposure API will provide 3/Medium

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Customer implementation teams will enable this feature through these recommended configuration steps.

Step 1: Risk configuration:

- It is recommended that the Supplier Risk Manager confirm that the Risk configuration is set and activated to the preferences based on the customers risk appetite. Some customers may prefer the out of the box risk configuration settings.
- Verify that all available data sources are enabled, category weights are set to the preferred distribution, and field settings are configured to the preferred settings for the enabled data sources. Proper risk configuration settings will provide insight to the contributing factors of the Risk exposure score that can be used for other procurement decisions and processes.

Step 2: Supplier Identification

- SM VENDORID is the unique identifier that is required to request risk exposure information via the Risk exposure API for Supplier Risk. Several options exist for exporting SM VENDORIDs.
 - The Supplier Data API with Pagination can be utilized to retrieve valid supplier SM vendor IDs.
 - A manual CSV export process from SM Admin area creates a file to identify suppliers and their SM vendor IDs.
 - SLP customers may use the Manage->Supplier Data Snapshots to download the onboarding report which contains all vendor IDs as well.
- Log into the developer portal to access the API: <https://developer.ariba.com/api/> - users can log into their existing account or create a new account by following the login instructions
 - **Supplier Data API with Pagination:** Using this API, you can create a client application to retrieve supplier data from your SAP Ariba Supplier Lifecycle and Performance or SAP Ariba Supplier Information and Performance Management (new architecture) solution, including supplier names, addresses, registration, qualification, and preferred statuses, and questionnaire details.
- **Step 3: Risk Exposure API**
 - Log into the developer portal to access the API: <https://developer.ariba.com/api/> - users can log into their existing account or create a new account by following the login instructions.
 - Request Risk exposure for suppliers from step 2 (SM vendor ID).

Step 2: Supplier Identification

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SAP Ariba APIs

User Name **1**

Password **1**

Data center

United States Data Center

Sign In [Forgot password?](#)

Already have a SAP Connect SSO login? [Sign in now](#)

Don't have an account? **2** [Sign up](#)

To view the External API; Risk Exposure API for Supplier Risk; use this link:

<https://developer.ariba.com/api/>

1. The customer can either use their credentials to log in,
2. or click the “sign up” link if they do not have an account.

Build powerful domain specific applications to address your customer needs using a rich environment and user friendly tools offered by SAP Ariba.

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Introducing: Risk Exposure API

Supplier Data API with Pagination: Using this API, you can create a client application to retrieve supplier data from your SAP Ariba Supplier Lifecycle and Performance or SAP Ariba Supplier Information and Performance Management (new architecture) solution, including supplier names, addresses, registration, qualification, and preferred statuses, and questionnaire details.

The screenshot shows the SAP API Explorer interface for the 'Supplier Data API With Pagination'. The left sidebar lists several REST APIs, with 'Supplier Data API With Pagination' selected. The main area displays the API details for the endpoint `POST /vendorDataRequests/`. A description states: 'This API will fetch all the vendor details in increments of 500 vendors per page in either JSON or CSV specified in request body. Optionally you can pass on additional filter parameters to get only a subset of vendors. API accepts query param \$skip to get the next page response.' Below this, there is a 'Parameters' section with a 'Try it out' button. A table lists the parameters, with 'request' marked as required. An 'Example Value' is provided in a dark box, showing a JSON object with fields like 'smVendorIds', 'businessUnitList', 'categoryList', 'outputFormat', 'preferredLevelList', 'qualificationStatusList', 'regionList', and 'registrationStatusList'.

- SM VENDORID is the unique identifier that is required to pull/request supplier level Risk exposure information via the Risk Exposure API
- The Supplier Data API with Pagination should be utilized to fetch supplier SM vendor ID.
- The customer must identify suppliers via the SM VENDORID. Several options exist for exporting SM VENDORIDs
 - The Supplier Data API with Pagination can be utilized to retrieve valid supplier SM vendor IDs.
 - A manual CSV export process from SM Admin area creates a file to identify suppliers and their SM vendor IDs.
 - SLP customers may use the Manage->Supplier Data Snapshots to download the onboarding report which contains all vendor IDs as well.

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SLP customers may use the Manage->Supplier Data Snapshots to download the onboarding report which contains all vendor ids.

Please access the information links below for detailed information related to the Supplier Data Snapshot report

- **How to run supplier onboarding supplier reporting:**

<https://help.sap.com/viewer/f081c6c38fb7466a84d746a7998bfe0e/cloud/en-US/00736bc3df2944ad9bed8815cb7df76a.html>

- **Supplier Onboarding Progress report reference:**

<https://help.sap.com/viewer/f081c6c38fb7466a84d746a7998bfe0e/LATEST/en-US/cb16676b27f04624b9d6cac0fd588924.html>

Step 3: Risk Exposure API

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SAP Ariba APIs

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The screenshot displays the SAP Ariba APIs Developer Area. The top navigation bar includes 'ARIBA NETWORK', 'CATALOG', 'GENERAL', 'NETWORK SUPPLIERS', 'PROCUREMENT', 'STRATEGIC SOURCING', 'SUPPLIER MANAGEMENT', and 'U/AUTOMATION'. The 'SUPPLIER MANAGEMENT' tab is selected and highlighted with a circled '1'. On the left sidebar, the 'REST' section is active, and the 'Risk Exposure API' is selected, highlighted with a circled '2'. The main content area shows the API details for 'Risk Exposure API', including its version (v1), description, rate limit, release notes, and environment details. The environment details table is as follows:

Environment	Description	Value
Sandbox (Mockbox) URL	Sandbox environment with mock sample data. This is not your test or production environment.	https://openapi.qa.cobalt.ariba.com:8443/api/risk-exposure/v1/sandbox
Production & Test URL	Runtime URL to access your test and production realm environments.	https://openapi.qa.cobalt.ariba.com:8443/api/risk-exposure/v1/prod
OAuth Server URL Prefix	OAuth Server used by the Cloud Business Applications.	https://svcsdev1mobile.sc1-lab1.ariba.com

Below the table, there is a 'Detailed Documentation' section with a 'Download API Spec' button. Under 'Schemes', the 'HTTPS' scheme is selected. At the bottom, the API endpoint is shown as `GET /suppliers/{smVendorId}/exposures` with the description 'Retrieve overall and category risk exposure.'

Once the customer has signed in, they should navigate to **Developer Area**

1. **Ariba Network - Supplier Management** to view the available APIs
2. **Risk Exposure API** - Found on the left hand of the screen

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The screenshot displays the SAP Ariba APIs documentation interface. At the top, there's a navigation bar with the SAP logo and 'SAP Ariba APIs'. Below it, a breadcrumb trail shows various API categories. The main content area is titled 'Risk Exposure API' and includes a description: 'Risk Exposure API can be used across SAP Ariba applications to share the overall and category risk exposure of suppliers monitored in SAP Ariba Supplier Risk'. A 'GET' button is visible next to the endpoint: '/suppliers/{smVendorId}/exposures'. Below this, the 'Models' section shows the JSON response structure for the 'ExposureModel' and 'RiskExposureCategoryModel'.

```
ExposureModel {
  realm                string
  smVendorId           string
  erpVendorId          string
  sourceSystem         string
  exposureId           integer($int64)
  exposureCalculationDate string
  exposure             integer($int32)
  exposureLevel        integer($int32)
  riskCategoryExposures [RiskExposureCategoryModel {
    name      string
    exposure  integer($int32)
    exposureLevel integer($int32)
  }]
  responseTimeStamp string
  exposureConfigurationVersion string
}

RiskExposureCategoryModel {...}
```

The API requires all customers and SAP Ariba applications to Pull data based on their own determined frequency.

Feature at a Glance

Introducing: Risk Exposure API

The screenshot displays the SAP API Explorer for the Risk Exposure API. The breadcrumb navigation includes: RIBA NETWORK, CATALOG, GENERAL, NETWORK SUPPLIERS, PROCUREMENT, STRATEGIC SOURCING, SUPPLIER MANAGEMENT, and UIAUTOMATION. The 'Schemes' section shows 'HTTPS' selected. The API endpoint is `GET /suppliers/{smVendorId}/exposures` with the description 'Retrieve overall and category risk exposure.' Below this, a text block explains: 'This API fetches the overall and category risk exposure for the given smVendorId. The API accepts the query parameter realm to get the supplier details for the specified realm.' The 'Parameters' section lists three required parameters:

Name	Description
realm * required string (query)	Identify the requested realm. For example, realm = s4All-3
smVendorId * required string (path)	The supplier you are retrieving risk exposure for.
apiKey * required string (header)	Use any Application Key of an Application(s) you created in developer portal. If you don't have an Application, please create one.

The 'Responses' section shows the 'Response content type' as `application/json`. At the bottom, a table for 'Code' and 'Description' is partially visible.

- This operation will Get data for suppliers with given SM Vendor ID's
- This provides an example of the API parameters

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Detailed feature information

For help regarding how to use the SAP Ariba Developer Portal, including:

- How to set up user accounts/register applications for use on the developer portal
- Step-by-step instructions on how to create an application that consumes the APIs available
- How to incorporate the OAuth authenticational portal

Please use the SAP Developer help guide found in the following link:

<https://help.sap.com/viewer/b61dd8c7e22c4fe489f191f66b4c48d6/cloud/en-US/8907b13c87e240639be8f546251b1e35.html>

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Introducing: Risk Exposure API

Use this information to troubleshoot your queries to the Risk Exposure API.

Error code	Message	Description
400	The apiKey passed in the request is not valid.	The API key passed in the query headers does not match the API key in the OAuth token.
400	The apiKey is missing in the header.	The API key passed in the query headers is missing. Add a valid API key in the header request.
400	The apiKey provided in the header does not match with the apiKey in the token.	The API key passed in the query header does not match the API key in the token. Change the API key in the query header to match the API key in the token.
400	Invalid or missing request parameters: sm_vendor_id or realm	Your request has an incorrect or missing SM vendor ID or realm. Check to make sure the specified realm name and smVendorID are correct, then resubmit your request.
400	Realm YYY in the request does not match with realms in the token. Available realms in token are 'AAA,BBB,CCC'	The specified realm in your request doesn't match the list of realms from the token. Change the realm in your request to one of the available realms in the token.
400	Realm YYY in the request is not available in SR.	The specified realm in the request isn't available in your supplier risk system.
400	Please check the realm in request. Realm value should not be null or empty.	The specified realm in your request can't be empty. Add the realm in your request.
429	Rate limit error	You have exceeded the maximum permitted query rate. See the developer portal discovery page for this API for the applicable query rates.
500	Error retrieving exposure data	The exposure data could not be retrieved for the supplier. This may be due to connection issues or the server is down. Try again after a while.
504	Gateway Time-out	The server timeout time has been exceeded, possibly due to network traffic or reliability issues. Retry your query.

This is an example of the possible error codes that can be used to troubleshoot queries for the Risk Exposure API.