JAMP AIS Input Supporting Tool Operation Manual

General Release Version 3XX

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Introduction

■ Outline

This is an operating manual for the AIS Input Support Tool which has been prepared by and within JAMP. It is composed of the three following sections: Operation, Applications and Data. In the Operation section the tool functions are explained. The Applications section provides explanation on the actual operations of the process of preparing an AIS. In the Data section explanation is given on basic technical issues concerning the format (excel macro and xml). The AIS Input Support Tool provided consists of the AIS input format and the macro programs used to automate the input process, both of which are implemented using Microsoft Excel. No additional installation work, etc., is required to operate the Tool. Since the Tool comes in a single Excel file, including the lists of materials and substances to be referred to during operation, all the Tool's functions work with the standard Excel application. The file containing this Tool is called "AIS_ input_support_Ver3xx. xls," with the "xx" to be changed as upgrades are made.

If you obtain the excel file from the internet, first download and save it into your PC, and then re-start It. Please take care that the macros program will not function properly if you try to open it directly from the internet.

■ Operating environment

Operating system: Windows XP/Vista

Application required: Microsoft EXCEL 2000 or above

Resolution: Over 1024 ×768 dots

■ Ownership and copyright

This Tool has been created by JAMP, which is the legal owner and copyright holder. The Tool must not be sold either as a single product or in combination with any other product(s). JAMP also prohibits any combination of the whole or any part of the Tool with any other tool. Should you wish to effect such a combination, please consult JAMP in advance.

■ Distribution

JAMP hereby allows the Tool to be copied and distributed provided that the Tool is to be used to create JAMP AISs.

■ Disclaimer

JAMP assumes no liability whatsoever for any damage resulting from the possession and/or use of this Tool. In addition, JAMP has no obligation with respect to the correction of any error made with the Tool or the maintenance thereof. The information on substances to be reported contained in the Tool is intended only to support the user's input of such information. Therefore, where a user uses the Tool to search for relevant legal regulations, to collate CAS Nos., etc., the user and the user alone shall be held liable for the substance-related information resulting from such search, collation, etc. JAMP shall not be held liable in any way for such information. The user shall therefore assume full liability with respect to any information he/she prepares in an AIS using this Tool.
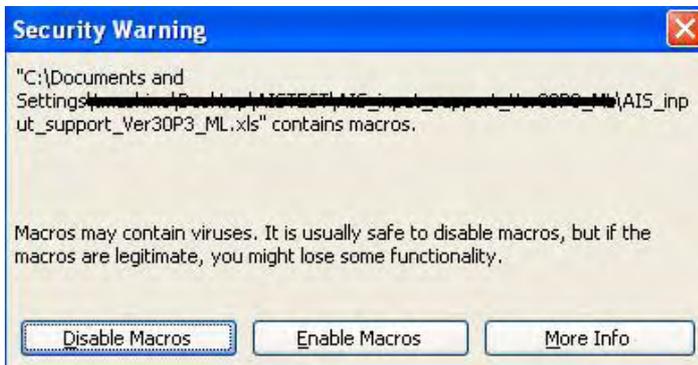
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Operation

■ Start-up

· How to enable macros

This Tool works as a macro program. When you start up the Excel file containing this Tool, the confirmation dialog shown to the left appears first. Select "Enable macros." This confirmation screen might not appear, depending on the Excel security level setting. In addition, there are some cases in which the use of a macro is prohibited. In any such case, please consult your system administrator.


In the case of Excel 2002 or 2003

(1) In the Excel menu, choose **"Tools (T)"** → **"Macros (M)"** → **"Security (S)…"** → **"Security Level"** page, where the "**Level**" is to be set to "**Medium**."

(2) Start up this Tool, which is an Excel file.

(3) In the screen that first appears in Excel, click on "**Enable macros (E)**."

In the case of Excel 2007

(1) After you start up this Tool, a security warning appears below the Excel menu

(the toolbar on the upper part of the screen). Click on "**Options …**"

(2) The Security Option screen appears. Choose "**Enable this content**."

· Selecting Language
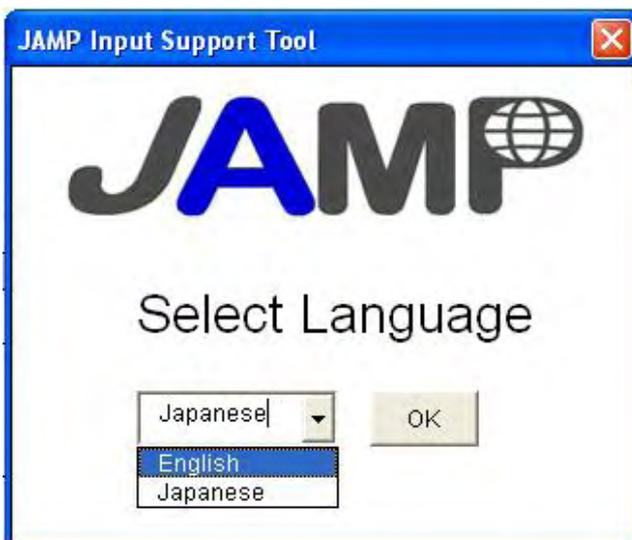
When starting this tool, after processing the "enable macros" operation explained above, the "Select Language" message automatically appears.

Please select "English" or "Japanese".

This language selection can also be done by clicking the "Select Language" button in the "Explanation" sheet after starting this tool.

■ Input_1 Sheet

This sheet contains fields for: 1. Information on the AIS; 2. Information on the corporation issuing the AIS; and 3. Article information and (optional) requester information. Please fill in all the items indicated "Required" in red. The sheet also has a button for importing an XML file.

■ Input_2 Sheet

The contents of Input_2 are shown below.

The structural tree, which will be described later, is shown in the lower half, and occupies a width equivalent to 30 cells. The Figure below is an enlarged view of the left-hand side of the tree.

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■ Input_2 Sheet (continued)

・ Article weight

In the Composition Information section, first fill in the Article weight. Fill in the weight of the article to be reported and the weight unit (choose from kg, g, or mg), and for the Unit Type, choose whether the mass is per article, per meter, per 1m2, or per 1m3. In the Figure above, composition is reported for one unit of an article of 4.2g in weight.

・ Declaration Concerning Composition Information

As shown in the Figure above, the Tool features the following two declaration sentences:

"This article is confirmed to contain declarable substances within the scope of concerned regulations or other documents [specified][indicated] by JAMP."

This sentence is a declaration on declarable substances that are to be listed in the structural tree that follows.

"This article is confirmed NOT to contain any declarable substances within the scope of concerned regulations or other documents indicated by JAMP."

Select this sentence where the article contains none of the declarable substances that are to be listed in the structural tree that follows. Even in this type of case, you will need to fill in the Material Information section.

- **Declaration on the extent of declarable substances**

   As illustrated in the Figure below, declare whether or not this particular AIS covers GADSL and JIG, respectively, in terms of the extent of declarable substances. This selection is mandatory. For instance, if you choose "0. Does not cover xx scope," the GADSL and JIG fields still remain on the List of Composition Information. In addition, if a substance chosen is covered by GADSL or JIG, the information on the substance appears in the corresponding field. Anyone who reads this AIS still needs to be aware that the creator of the AIS, in the form in which he/she created it, declared that those substances that are covered by GADSL or JIG were not considered to be declarable substances.

   At the same time, the creator of an AIS should be aware of the field in which downstream users of the AIS combine the article described therein.

   Where a substance that is covered by GADSL or JIG is chosen, the corresponding field displays one of a number of signs. These signs have the meanings explained below:

GADSL

 P: Prohibited for any use.

 P/D: Prohibited for some uses and requires a declaration for other uses. Consult a GADSL document for details.

 D: Requires a declaration when it is used in excess of the threshold value. Note that the use of such a substance in automobile components is not prohibited.

   For more details, visit http://www.mdsystem.com/html/ja/lis_GADSL_inhframe-5_ja.htm and other relevant websites.

JIG

 A: stands for the "Level A" substances chosen by JIG. The use of any of these substances in a procured item is prohibited, regardless of whether it is used immediately or after the specified date (delivery prohibition).

 B: stands for the "Level B" substances chosen by JIG. Although the use of these substances is not prohibited, efforts are made to learn about, control, and reduce the proportions in which these substances are used.

   For more details, visit http://210.254.215.73/jeita_eps/green/green7.htm and other relevant websites.

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■ Input_ 2   (continued)

・ Structural tree from a product to substances

The AIS expresses a structural tree in five fixed layers, namely, Article-Level-Component-Material-Declarable Substances . An article is the unit type and information about it is recorded in **"Input_1"** as discussed above. The "Level" and "Component" represent the composition of the article's parts. When the report made is about an original part, the "Level" is left blank, as shown in the Figure below. This field is to be used for downstream products, which have more complex structures. While "Material" refers to the material of which the component is composed, "Declarable Substances" refers to the substance from which the Material is made. You can add new lines to the "Level," "Component," "Material," and "Declarable Substances" layers. The "Level" and "Component" layers have "Quantity" fields. The Amount Used for a material or substance is calculated by multiplying "Material Mass" by "Quantity." Where the Quantity field for the "Level" is left blank, the Quantity is deemed to be 1 for the auto calculation. If the Quantity field for the "Component" is left blank, a warning message appears and that particular line is not used in the calculation.

Examples: Used Amount of a material for a single line: Level Quantity x Component Quantity x Material Mass

Used Amount of a substance to be reported for a single line:

Level Quantity x Component Quantity x Substance Mass

These calculations are carried out as part of the auto calculation and the results appear on the right-hand side of this List

· Creating a structural tree

Note: The numbers (1), (2), etc., in the following text correspond to those shown in the Figure above.

◇ Initialization of the List

To initialize the List and make it blank, click button (10). Each cell in the List contains, as necessary, an input tip and a pull-down menu of options, etc.

◇ Adding a Level line

To add a line to the position of the Level in the far left-hand section of the List, click button (2). Where Cell (1) has been selected before clicking on this button, a new line is added at the top. Where a cell with a name corresponding to a Level somewhere in the middle of the List has been selected, a new empty line is added immediately below that cell. Example: (1)'

◇ Adding a Component line

Select Cell (3), "Component Name," and click button (4). Immediately below Cell (3), a new line that runs to the right from "Component" is added. In this case, no new line is added to the left, i.e., in "Level" column. What takes place is that the existing space becomes larger.

◇ Adding a Material line

Select Cell (5), "Use," and click button (6). Immediately below (5), a new line for Material and Substance is added. In this case, no new line is added to the left, i.e., in "Level" or "Component" columns What takes place is that the existing space becomes larger.

◇ Adding a Substance line

Select Cell (7), "Substance Name," and click button (8). Immediately below (7), a new Substance line is added. In this case, no new line is added to the left, i.e., in "Material," "Level" or "Component." What takes place is that the existing space becomes larger.

◇ Deleting a line

Select the cell that represents the line you want to delete and click button (9). Once deleted, a line is unrecoverable. Note that Excel's "Edit (E) > Undo (U)" function does not work either.

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・ **Selecting a material**

Level No need to be filled in for Original Parts		Component		Material						Substance			
Add Level		Add Component		Add Material						Add Substance		--- within the Mater	
Name	Quantity	Component Name	Quantity	Use	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	CAS Number	Concentration (wt%)	Substa Mass
Fill in	Fill in	Fill in	Fill in	Select	Select Material	Auto	Fill in	Fill in	Select	Select Substance	Auto	Fill in	Auto
		contact	10	1.base material	Copper alloys	R312		0.2	g	Copper (metallic)	7440-50-8	90	0.18
										Lead	7439-92-	5	0.01
				6.plating	Sn-Pb solder	R351		10	mg	Lead	7439-92-	60	6
		insulator	1	1.base material	Other thermoplastics	P529		2	g	Antimony oxide	1309-64-	30	0.6
				11.painting	Painted resin	S401		3	mg	Lead chromate	11119-70-3	10	0.3

Red letters : Required f — Delete selected row — All Clear — Update Auto calculation sheet

To select a material, click the "Select Material" button. After selecting the cell in which you want to enter or change a material (for instance, the one displaying "Copper alloy" in the Figure above), click the "Select Material" button and a number of materials to choose from is displayed, as shown in the Figure below. Choose the material you want from the List and click "Select and Close." The name of the material selected is then overwritten into the selected cell and the classification sign appears in the cell to its right.

5. Other Information

Select Material

Material Group ID	Group	Name
R103	Steel and iron material	Cast iron
R104	Steel and iron material	Cast iron with lamellar graphite / tempered cast
R105	Steel and iron material	Cast iron with nodular graphite / vermicular cast
R211	nonferrous metals	Cast aluminium alloys
R212	nonferrous metals	Wrought aluminium alloys
R221	nonferrous metals	Cast magnesium alloys
R222	nonferrous metals	Wrought magnesium alloys
R311	nonferrous metals	Copper (e.g. copper amounts in cable harnesse
R312	nonferrous metals	Copper alloys
R330	nonferrous metals	Zinc and Zinc alloys
R340	nonferrous metals	Nickel and Nickel alloys
R350	nonferrous metals	Lead and Lead alloys
R351	nonferrous metals	Sn-Pb solder
R361	nonferrous metals	Lead-free solder
V421	nonferrous metals	Gold
V411	nonferrous metals	Platinum / rhodium
V412	nonferrous metals	Other special metals

List Ver.1.01

Select   Cancel

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■ Input_2　(continued)

・ Selecting a substance

To select a substance, click the "Select Substance" button. After selecting the cell in which you want to enter or change a substance (for instance, the one showing "Lead," etc., in the Figure below), click the "Select Substance" button and a number of substances to choose from is displayed.

The function used to select a substance is explained below.

The Figure above shows a case in which the substance name entered in the selected cell (shown as the background to the Figure) is "Lead." In the list of substances that appears after the "Select Substance" button is clicked, a search for names is carried out using "Lead," which was the substance shown in the cell, and while the search result is being displayed, the first screen appears.

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In the Figure above, the selected cell (shown as the background to the Figure) is empty. The Figure shows the status after the "Select Substance" button has been clicked with the CAS No. being "7439." The substance selected is lead, which first corresponds to CAS No. 7439.

As this example shows, if the selected cell contains a substance name that has been entered into it, clicking the "Select Substance" button begins a search using the name and the search result is displayed on the first screen. If the Substance Name is empty, a CAS-based search takes place using the contents of the CAS No. cell and the result of this CAS search appears on the first screen.

In the uppermost section of the Select Substance screen, the signs EU01-04, IA01 and IA02 appear, which are conditions used for narrowing down the substances displayed. The meanings of these signs are provided in the Substance Details section in the bottom part of the screen.

Example: EU01 stands for 2002/95/EC RoHS.

This Tool displays and handles declarable substances using their English names. There are two reasons for this: first, the primary need for this AIS arises from the relevant EU regulations, the original version of which records substance names in English. In addition, we hope to distribute the AIS internationally. The Japanese names shown on the screen are provided to facilitate searches. Typical names of groups of substances (in both Japanese and English) are also provided to facilitate searches.

* In preparing the Japanese names that appear in the Substance List, we have benefited from the kind cooperation of Japan Chemical Database Ltd. (JCDB).

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· **Selecting a substance**   (continued) – Functions on the Select Substance screen

 (Explanations of the parts numbered (1), (2), (3) --- in the Figure)
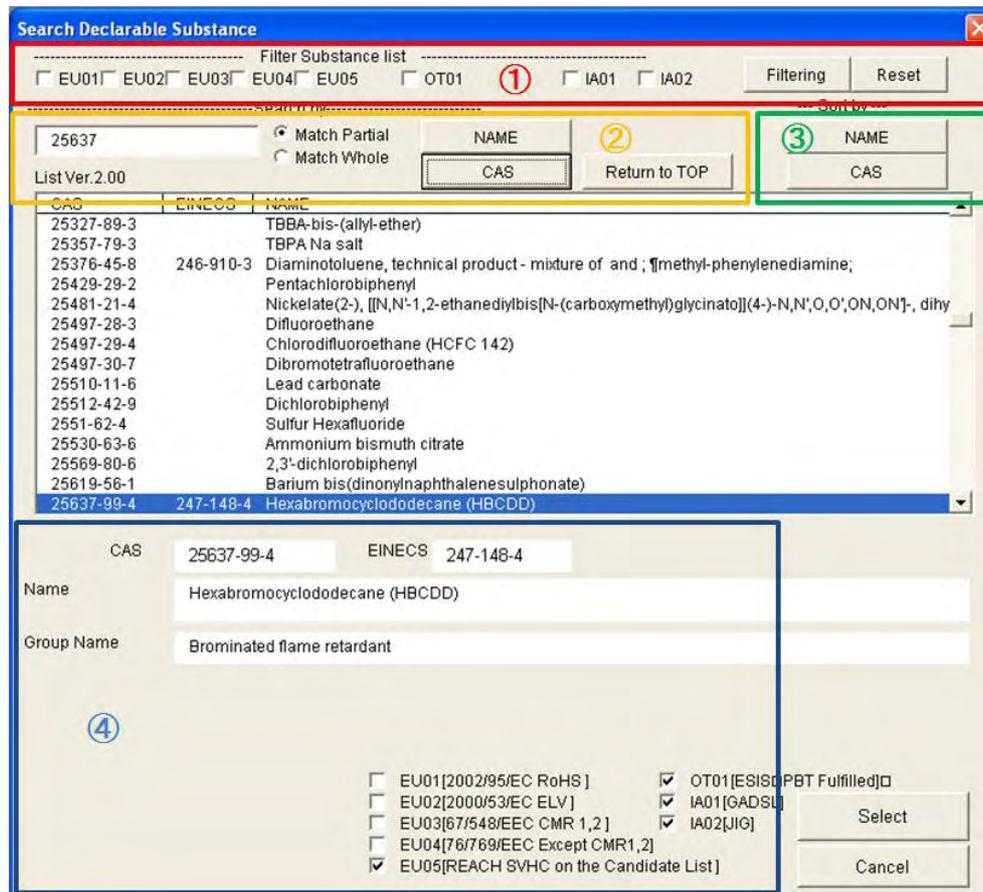
(1): The substances displayed in the List are narrowed down according to these conditions. You can check multiple conditions simultaneously. Where multiple conditions are chosen, a substance must meet at least one of them to be displayed. This process might take several minutes. Clicking "Release" cancels the narrowed down list and returns to the full original list.

(2): Search for substances in the List.

Enter a name or CAS No. in the textbox (the textbox containing "Chlorides" in the Figure), and click one of the "Search using CAS," "Search using a Japanese name," or "Search using an English name" buttons. If you want to find only those substances that match the search word exactly, click○ Perfect Match. The search moves within the List and brings up the result. This Tool does not have a function allowing for only those substances that match the search condition to be extracted and listed. The search proceeds downward, beginning with the current position in the List. To prevent the search from missing any of the items listed, first click "Return to Beginning" to move to the beginning of the List before launching the search. Where multiple items in the List meet the search condition, click the "Search using CAS," "Search using a Japanese name," or "Search using an English name" button repeatedly. Each time you click any of these buttons, the search moves down once.

(3): Sort the List.

(4): Detailed information on the substance currently selected appears.

(5): Click "Select and Close" to copy the contents of (5) into the selected cell's "Declarable Substance" line. Click "Close" to return to the original Excel sheet with no processing.

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■ Auto calculation sheet

The auto calculation function extracts necessary information from the structural tree entered in the Composition Information sheet, makes a calculation, and displays the calculation results. To begin this process, click the "Update Auto calculation sheet" button marked (1) in the Figure below. To keep the latest contents of the Auto calculation sheet, you need to click this button after changing the Composition Information.

| Red letters : Required f | Delete selected row | | All Clear | | Update Auto calculation sheet | ① | |

	Material						Substance					Co
aterial							Add Substance		--- within the Material ----			on
	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit		Substance Name	CAS Number	Concentration (wt%)	Substance Mass	Unit	App cob
f	Select Material	*Auto*	*Fill in*	*Fill in*	*Select*		Select Substance	*Auto*	*Fill in*	*Auto*	*Auto*	*Au o*
aterial	Copper alloys	R312		0.2	g		Copper (metallic)	7440-50-8	90	0.18	g	
							Lead	7439-92-1	5	0.01	g	
ng	Sn-Pb solder	R351		10	mg		Lead	7439-92-1	60	6	mg	
aterial	Other thermoplastics	P529		2	g		Antimony oxide	1309-64-4	30	0.6	g	
ling	Painted resin	S401		3	mg		Lead chromate	11119-70-3	10	0.3	mg	

Before you begin this process, confirm that the article's mass and the unit have been entered correctly. Where either the article's mass or unit is left empty, a message appears and the calculation stops. The Figure below shows an example of an Update Auto calculation sheet.

		JAMP AIS Input support tool							
6. Information To Be declared									....
Common Product Name			Ceramic Capacitor						

Article Mass				Export XML		
Unit Type	Mass	Unit of Mass				
1. Piece	4.2	g		List Version		

Level		Component		Material								Substanc
Name	Quantity	Component Name	Quantity	Use	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit			
		contact	10	1.base material	Copper alloys	R312		0.2	g			Copper (.
				6.plating	Sn-Pb solder	R351		10	mg			Lead
		insulator	1	1.base material	Other thermoplastics	P529		2	g			Antimon
				11.painting	Painted resin	S401		3	mg			Lead ch

7. Specified Chemical Substance Concentration within Article

Substance Name	CAS Number	Concentration within Article	Unit
Copper (metallic)	7440-50-8	42.8571	%
Lead	7439-92-1	3.8095	%
Antimony oxide	1309-64-4	14.2857	%
Lead chromate	11119-70-3	0.0071	%

8.Total Amounts of Material within Article

Material	Material Classification Number	Material Mass	Unit
Copper alloys	R312	2	g
Sn-Pb solder	R351	0.1	g
Other thermoplastics	P529	2	g
Painted resin	S401	0.003	g

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■ Auto calculation sheet　(continued)

The Auto calculation sheet shown on the preceding page contains the following items:

· Information to be Declared

Of the Composition Information entered in Input_2, the lines have been taken out for those substances covered by the regulations, etc., that have been checked. With respect to GADSL and JIG, the lines to which these regulations apply are taken out here if these regulations are covered by the declaration. If not, those lines are not taken out. In addition, among the Composition Information items, note that if the Component Quantity is left empty, that line might be considered invalid and therefore might not be extracted here.

· Specified Chemical Substance Concentration within Article

Based on the Composition Information extracted as the Information to be declared, the Tool calculates the total amount of each substance as a % of the article and displays the result. If the substance names and CAS Nos. of two lines match each other, the two lines are considered to refer to the same substance and its concentration is calculated.

· Total Amount of Material within Article

For each and every material listed in the Composition Information, its total amount is calculated and displayed. This calculation is conducted according to what the classification Nos. say. Where no classification No. is recorded, the mass of the corresponding material does not appear in the calculation results.

In these calculations, the Level and Component quantities are multiplied and the sum is obtained, as discussed in the explanation of "Structural tree from a product to substances" given on Page 3.

In addition to the above, the auto calculation gives the rate expressed as a % of the sum of reported materials to the article's mass, as well as the subtotal for each line on the right-hand side of the List of Composition Information in Input_2. These calculation results are shown as in the Figure below.

Note: In the case of a continuous auto calculation of composition information that contains more than 100 lines, some PCs might work extremely slowly. In such a case, first export an XML file and exit Excel, which runs this Tool. Then restart this Tool and import the XML file again.

■ Inputting/Outputting an XML file

・ Inputting an XML file

This operation overwrites all the content written into the Tool. If you want to save some data, either output an XML file as described later or save this whole Tool as an Excel file under a different name.

Click the "Import XML" button on the screen for Input_ 1 shown on Page 2 and, as shown in the Figure below, a screen in which you select a file to import will appear.
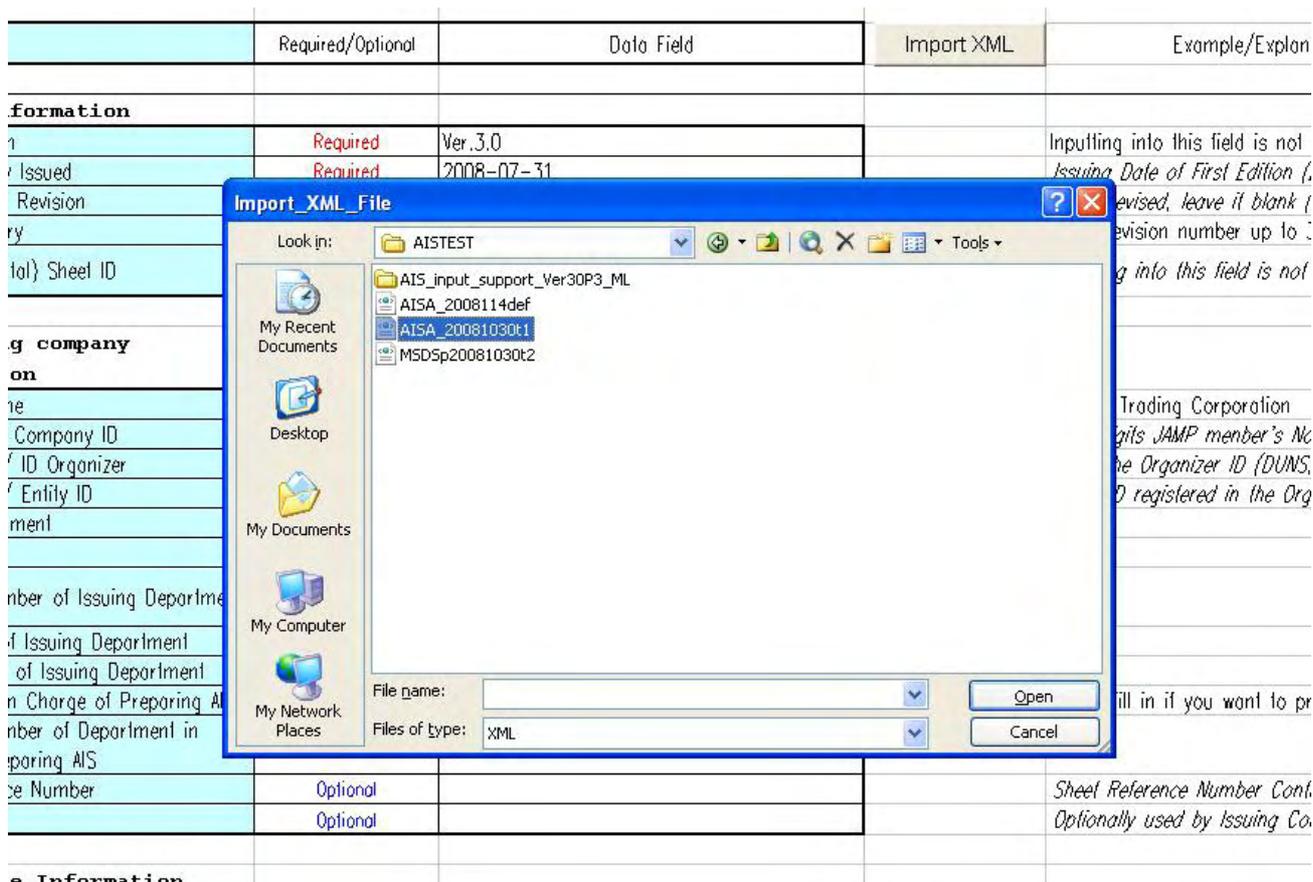
At the third verification stage, only XML files output from this Input Support Tool or Collection Tool can be imported. After selecting a file, click "Open (O)." This importing process may take around 10 seconds to complete.

If the importing process is completed correctly, the message shown in the Figure to the left appears. Click OK to close this screen.

The Auto calculation sheet does not contain any information to be included in an XML file other than information about the material(s) in the article. For this reason, the importing process overwrites only the information about the material(s) in the article.

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· **Outputting an XML file**

Click the "Export XML" button on the Auto calculation sheet screen shown on **"■Auto calculation sheet"** of this manual and the screen shown in the Figure below will appear, in which you can specify the name of the file in which the XML information is to be saved. For this Tool, "AISA_ + date + Product No." is automatically assigned as the file name. Nevertheless, in using such an automatically assigned name, you will have other files created on the same day which will be overwritten with the same name. To prevent this, add some appropriate characters to each file name before you save it.
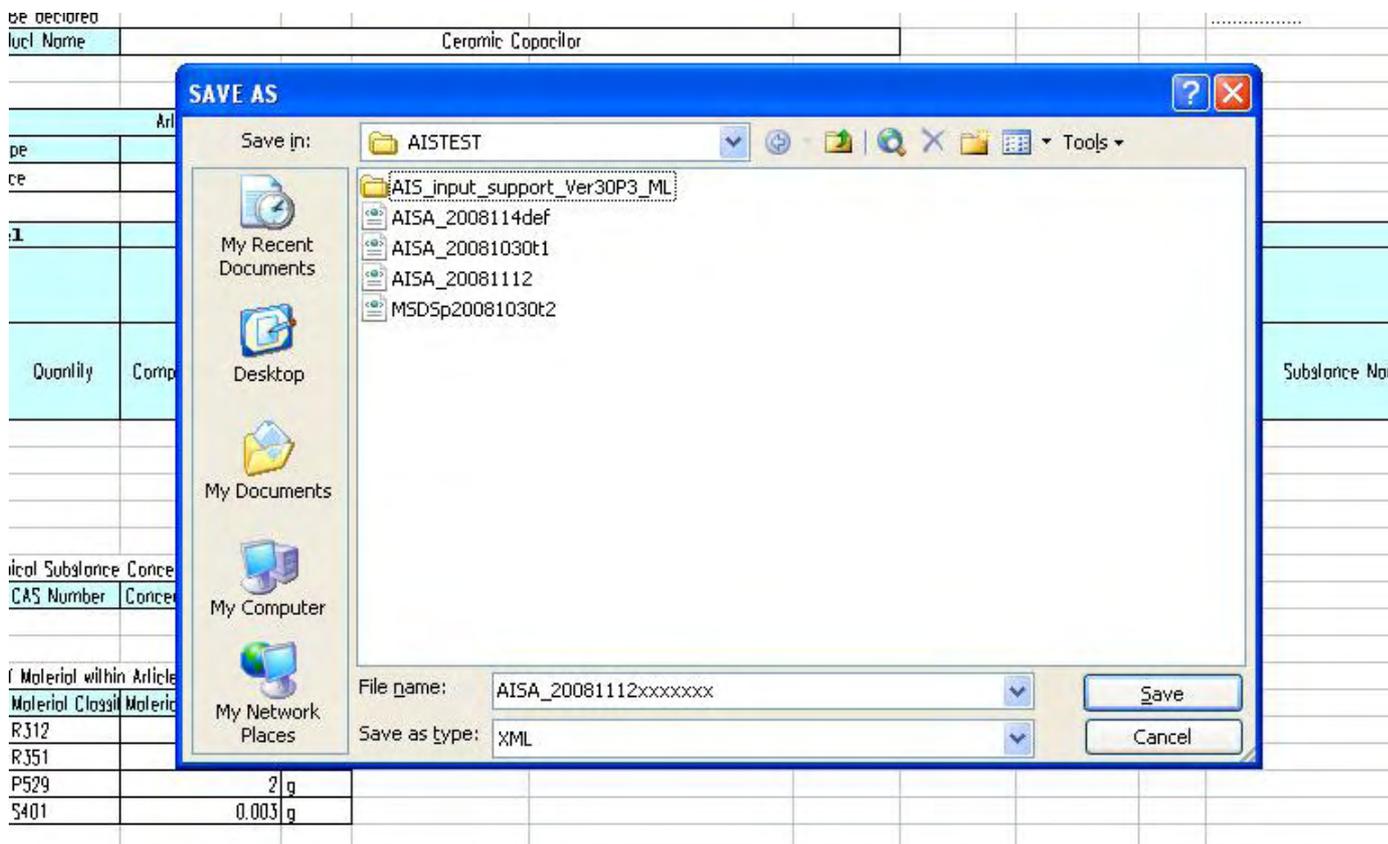
After you have determined the file name and selected the folder in which to store the file, click "Save (S)." A new XML file will be created within a few seconds.

The AIS has the following rules about file names. Please keep these regulations in mind when you change a file name.

AIS files about an original part: AISAxxxxxxxx.xml

Integrated and calculated AIS files: AISBxxxxxxxx.xml

Simplified and calculated AIS files: AISCxxxxxxxx.xml

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■ List Version

There is a "List Version" button in the Auto calculation sheet as shown in below1 .

A Material List and a Substance List are included in this tool. These lists are managed by versions. If the current version of the list in the tool and the version through which the XML file that has been read was prepared are different, a message as shown below will appear if you click the "List Version" button.
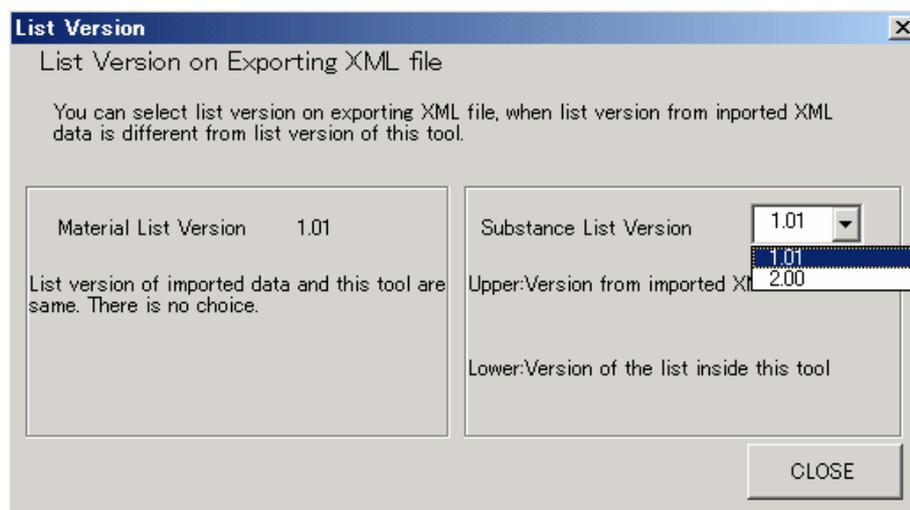

You can select list version on exporting XML file, when list version from imported XML data is different from list version of this tool.

・Version from imported XML data

・Version of the list inside this tool

The party who receives the exported XML file can, by looking at this list version, make a presumption on when the file was prepared and under which circumstances. When for some reason you amend the data from the exported file, and the amended content reflects that of the latest list version, it is recommended that you update it from the above pop-up.

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Applications

■ How the Component List tree is related to cells

Before explaining how it actually operates, let us first describe how this particular Tool represents the tree structure of the Component List.
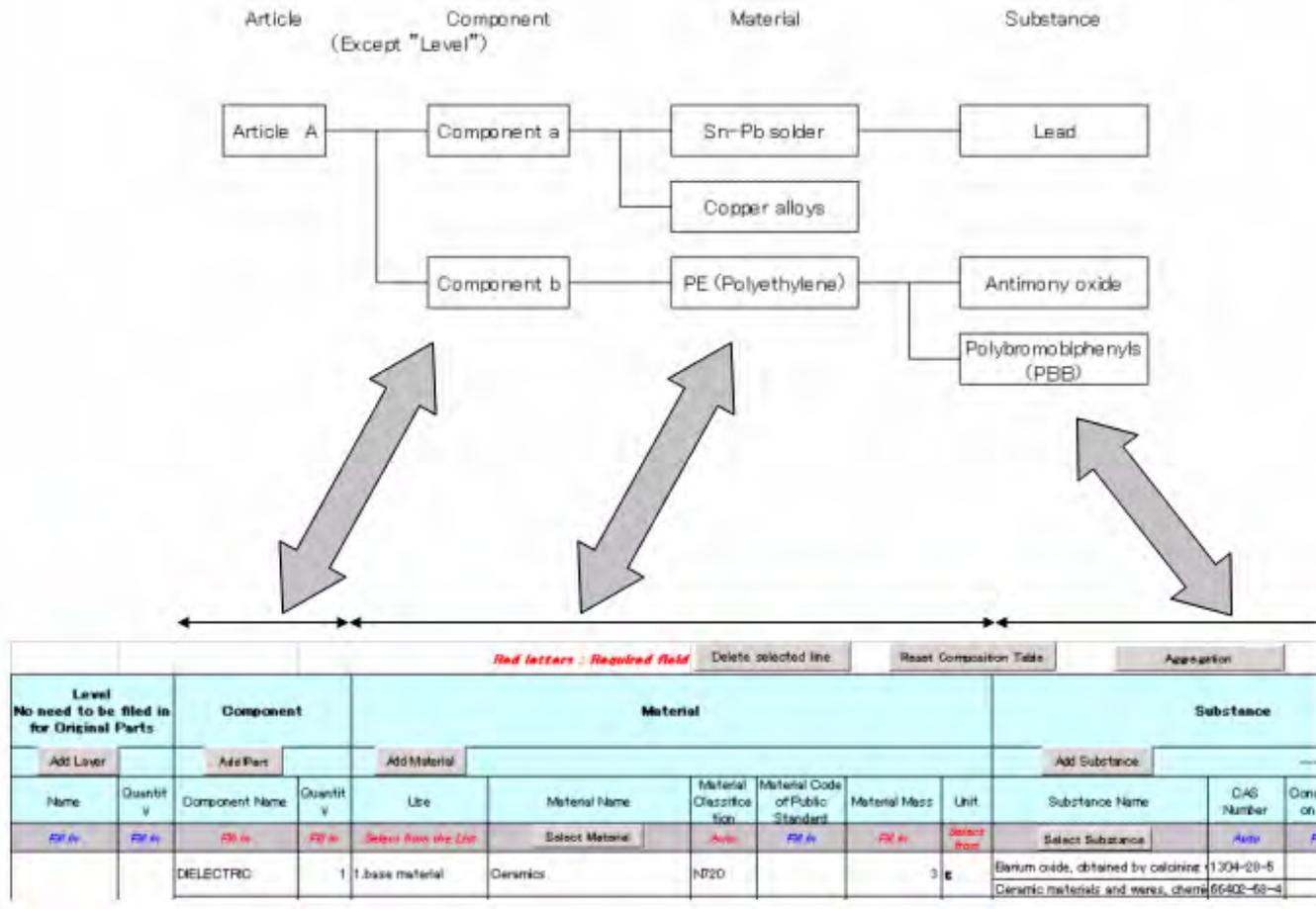
The Figure above illustrates the Component List tree and how it corresponds with specific Tool cells that represent the tree. You will notice that "Solder containing lead" and "Copper alloys" hang from "Component a." With Excel cells, this "Component a" encompasses two Material Lines in order to represent the "hanging." Likewise, this Tool represents a branch in the tree with an additional Line, which you can create by clicking on the corresponding Add button ([Add Level], [Add Component], [Add Material], or [Add Substance]).

■ Entry of article names, etc.   ---- Input_ 1

Let us now begin creating an actual AIS using a blank sheet.

First, fill in the required items on "Input_ 1"

Example				Import XML
Item		Required/Optional	Data Field	
1. AIS Information				
Format Version		Required	Ver.3.0	
Date Originally Issued		Required	2008-07-31	
Date of Latest Revision		Required	2008-10-28	
Revision History		Required	2	
GP(Global Portal) Sheet ID		No need to fill in (Automatically filled)		
2. Issuing company Information				
Company Name		Required	yyy Trading Corporation	
JAMP Member Company ID		Optional		
Company ID / ID Organizer		Optional		
Company ID / Entity ID		Optional		
Issuing Department		Required	Sales	
Address		Required	XXX, XXXX	
Telephone Number of Issuing Department		Required	03-5209-xxxx	
FAX Number of Issuing Department		Optional		
Email Address of Issuing Department		Optional		
Department in Charge of Preparing AIS		Optional		
Telephone Number of Department in Charge of Preparing AIS		Optional		
Sheet Reference Number		Optional		
Remarks		Optional		
3. Article Information				
Manufacturer Name		Required	yyy Electronic Mfg. Co.,Limited	
Common Product Name		Required	Ceramic Capacitor	
Issuing Company Item Number		Required	xxxxxxx	
Multiple Product Name/Product Series Name		Optional		
Remarks		Optional		

Fill in those items marked "Required" in red in the Figure above with the date of issue, contact information for your Department/Division, the name of the article, etc. The Common Product Name is also required. This Common Product Name is an important piece of information communicated down to the end of the supply chain. By contrast, some other items, such as the Issuing Company, Article Information, etc., are regulated so they will not be communicated to anyone beyond the direct supply destinations. (For more details, see Chapter 5 of the JAMP AIS Manual.)

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■ Article mass, selection of JIG/GADSL, declarations, etc.　---- Input_ 2

Input_ 2 contains some required items, in addition to the Composition Information, as indicated by the thick line encircling them in the Figure above. First, there are three items related to the article's mass, namely the "Unit Type," "Mass," and "Mass Unit." All these items are essential for calculations and for recipients of the AIS to process the data. Another piece of essential information is whether GADSL or JIG is covered for the declarable substance, as the AIS recipient considers what issues the recipient can determine based on the particular AIS.

Next, there is a declaration on the Composition Information. If information on the substance exists, choose "1. This article is confirmed to contain declarable substances within the scope of concerned regulations or other documents indicated by JAMP." If you have to leave the Substance field blank because there is no information on the substance, choose "0. This article is confirmed NOT to contain any declarable substances within the scope of concerned regulations or other documents indicated by JAMP."

■ Entry of Component Name and Quantity　　　　---- Input_ 2
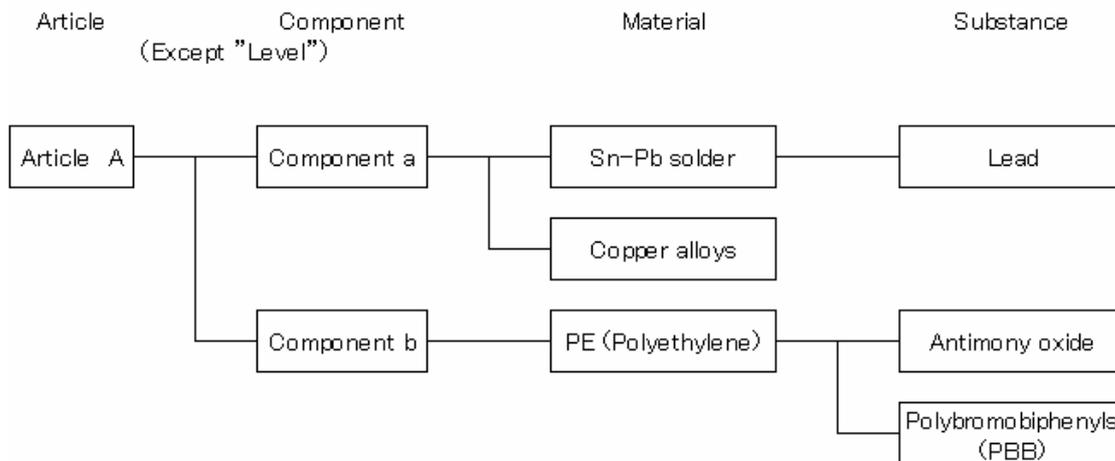
Now enter the actual Component List tree that appeared at the beginning. Enter the Component Name into the blank List first.

The Figure above shows the List into which "Component a" and "Component b" have been entered. Adjust the quantity value as necessary. The Figure shows an entry clue being displayed after the Quantity cell has been clicked.

To select the Material, first click on Cell (1) in the column of material names, then click the "Select Material" button (2) above the Cell. As the Figure below shows, the Material Selection screen appears.

This Figure shows the status after the "**Sn-Pb solder**" item on the list has been clicked. To select this particular material and return to the List, click on "Select and Close." The Figure below shows the status after the Material Selection screen has been closed.

The Material Name and the Classification No. have now been automatically transcribed. "g" has appeared as the unit. This is a result of what was chosen from the item "Article's Mass Weight" in the upper portion of the sheet, which has been automatically copied at this timing.

JAMP

Level No need to be filled in for Original Parts		Component		Material						Subs
Add Level		Add Component		Add Material						Add Substance
Name	Quantity	Component Name	Quantity	Use	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	Nu
Fill in	*Fill in*	*Fill in*	*Fill in*	*Select*	Select Material	*Auto*	*Fill in*	*Fill in*	*Select*	Select Substance	
		Parts A	1	▼	Sn-Pb solder	R351			g		
		Parts B	1								

A Selection must also be made for the material's Use. After selecting "**Sn-Pb solder**," click on the cell to the right of the List and the options prepared in advance will appear, as shown in the Figure below.

Level No need to be filled in for Original Parts		Component		Material					
Add Level		Add Component		Add Material					
Name	Quantity	Component Name	Quantity	Use	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit
Fill in	*Fill in*	*Fill in*	*Fill in*	*Select*	Select Material	*Auto*	*Fill in*	*Fill in*	*Select*
		Parts A	1	8.flame spray coating ▼	Pb solder	R351			g
		Parts B	1	1.base material 2.clad 3.attached agent 4.inner preparations 5.solder joint 6.plating 7.chemical conversion tr 8.flame spray coating					
			1						
			1						

The Figure above shows the status after "6. **plating**" has been chosen. Clicking on this option brings up the screen shown in the Figure below, which indicates the Use has been selected.

Level No need to be filled in for Original Parts		Component		Material					
Add Level		Add Component		Add Material					
Name	Quantity	Component Name	Quantity	Use	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit
Fill in	*Fill in*	*Fill in*	*Fill in*	*Select*	Select Material	*Auto*	*Fill in*	*Fill in*	*Select*
		Parts A	1	6.plating	Pb solder	R351			g
		Parts B	1						
			1						

JAMP

■ Adding another Material to the Component   ---- Input_ 2

We now add a Material Line in order to "hang" another Material onto "Component a."

Level No need to be filled in for Original Parts		Component		Material						Sub
Add Level		Add Component		Add Material ②						Add Substance
Name	Quonlily	Component Name	Quonlily	Use	Molerial Name	Molerial Classificalion Number	Molerial Code of Public Slandard	Molerial Mass	Unil	Subslance Name
Fill in	*Fill in*	*Fill in*	*Fill in*	*Select*	Select Material	*Auto*	*Fill in*	*Fill in*	*Select*	Select Substance
		Parts A	1	8.flame spray coating ①	Sn-Pb solder	R351			g	
		Parts B	1							

In the Figure above, select Cell (1), Use, then click on the "Add Material" button, (2). Then, as shown in the Figure below, the height of the "Component a" Line becomes twice that of the Material Line and a new Material Line is added.

Level No need to be filled in for Original Parts		Component		Material						Sub
Add Level		Add Component		Add Material						Add
Name	Quonlily	Component Name	Quonlily	Use	Molerial Name	Molerial Classificalion Number	Molerial Code of Public Slandard	Molerial Mass	Unil	Sub
Fill in	*Fill in*	*Fill in*	*Fill in*	*Select*	Select Material	*Auto*	*Fill in*	*Fill in*	*Select*	Sel
		Parts A	1	8.flame spray coating	Sn-Pb solder	R351			g	
		Parts B	1							

Select the Material and Use in this additional line and fill in the Material Mass. Similarly, for "Component b," select "PE **(Polyethylene)**" as the Material and fill in the necessary items. This completes the Material section.

Level No need to be filled in for Original Parts		Component		Material						Sub
Add Level		Add Component		Add Material						Add Substance
Name	Quonlily	Component Name	Quonlily	Use	Molerial Name	Molerial Classificalion Number	Molerial Code of Public Slandard	Molerial Mass	Unil	Subslance Name
Fill in	*Fill in*	*Fill in*	*Fill in*	*Select*	Select Material	*Auto*	*Fill in*	*Fill in*	*Select*	Select Substance
		Parts A	1	8.flame spray coating	Sn-Pb solder	R351		100	mg	
				1.base material	Copper alloys	R312		12	g	
		Parts B	1	1.base material	PE (Polyethylene)	P511		1	g	
			1							

■ Selection of Substance   ---- Input_ 2

The Substance section is located to the right of the Material section.

In the Figure above, click on Cell (1), the Substance name, then click the "Select Substance" button, (2). The Substance Selection screen then appears, as shown in the Figure below.

Since we are assuming a case in which we hope to report on lead, enter "Lead" in the field "Enter search string" and click the radio button, "○," to the left of "Perfect match," to turn the button into "●." Now click the "**Search for a Name**" button.

JAMP
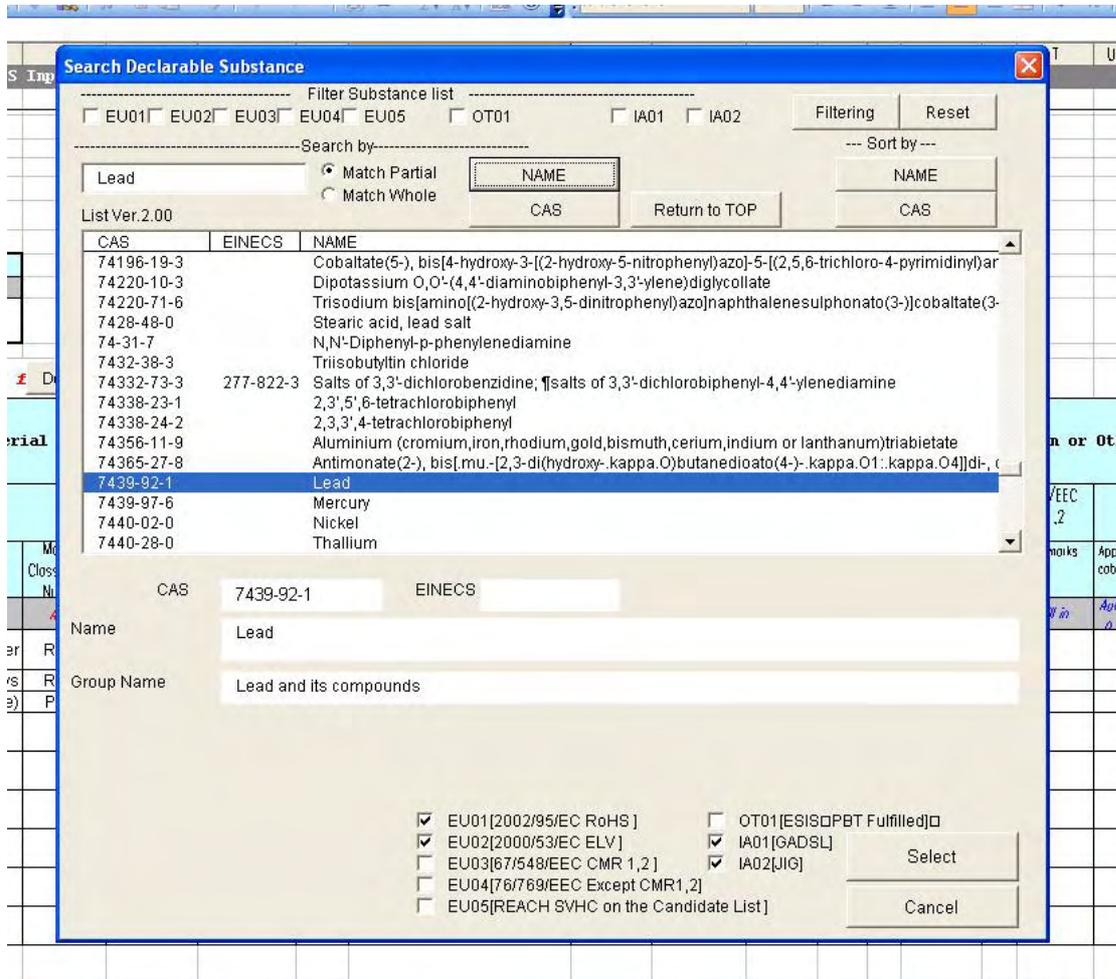
The Figure above shows the result of **"Search for a Name"** for a perfect match with "Lead."　Now click on "Select from the list."

The Figure below shows the result of transcribing the name "Lead," the CAS No., and the information equivalent to ELV, RoHS, GADSL and JIG. This Tool transcribes English names for the following two reasons: first, in order to comply with REACH and other non-Japanese regulations, English names matter, because these regulations are written in English. In addition, as we try to make AIS compatible with multiple languages, it is helpful to have as much information as possible expressed in English.

JAMP

■ Filtering of REACH SVHC on the Candidate List ---- Input_ 2

If you want to search the "REACH SVHC on the Candidate List".

Please check [EU05] and click [Filtering] button.

By doing this, a list showing only SVHC will appear as below.

■ Filling in the substance concentration in the material   ---- Input_ 2

Material					Substance					Conc
					Add Substance		--- within the Material ----			RE on th
Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	CAS Number	Concentration (wt%)	Substance Mass	Unit	Appli cable
Select Material	Auto	Fill in	Fill in	Select	Select Substance	Auto	Fill in	Auto	Auto	Aut o
Sn-Pb solder	R351		100	mg	Lead	7439-92-1		0	mg	
Copper alloys	R312		12	g				0	g	
PE (Polyethylene)	P511		1	g				0	g	

In the Figure above, fill in the Concentration wt% field with the substance concentration in the material. In this example, the "Substance in the **Sn-Pb** solder" is "Lead" and 65% is specified as the lead concentration.

Material					Substance				
					Add Substance		--- within the Material ----		
Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	CAS Number	Concentration (wt%)	Substance Mass	Unit
Select Material	Auto	Fill in	Fill in	Select	Select Substance	Auto	Fill in	Auto	Auto
Sn-Pb solder	R351		100	mg	Lead	7439-92-1	65	65	mg
Copper alloys	R312		12	g				0	g
PE (Polyethylene)	P511		1	g				0	g

After you have filled in the concentration, the mass is automatically calculated and displayed, as shown in the Figure above. In this example, since the material mass is 100 mg and the lead concentration is 65%, the substance mass is 65 mg.

Similarly, for the material "PE," fill in the substance "Antimony trioxide."

Material					Substance				
					Add Substance		--- within the Material ----		
Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	CAS Number	Concentration (wt%)	Substance Mass	Unit
Select Material	Auto	Fill in	Fill in	Select	Select Substance	Auto	Fill in	Auto	Auto
Sn-Pb solder	R351		100	mg	Lead	7439-92-1	65	65	mg
Copper alloys	R312		12	g				0	g
PE (Polyethylene)	P511		1	g	antimony			0	g

Fill in the Substance Name cell with "Antimony" (press Enter for the cell to confirm this entry) and click the "Select Substance" button. As shown in the following Figure, the Substance Search screen is then displayed.

JAMP

In our example, the first option displayed is antimony, a perfect match with what was entered in the Substance Name field. This, however, is not what we want, which is information on antimony trioxide.

JAMP

We therefore start the search again using the CAS No.

Enter "1309-64-4" in the Search field and click the "Jump to TOP" button, (1), then the "Search for a CAS" button, (2).

The search proceeds downwards, starting with the current position on the List. Here, since "antimony" begins with CAS No. 7440, beginning the search with the current position makes the system search first for those substances whose CAS Nos. are higher than 7440. You can find the current position on the List by viewing the position of the slide bar to the right. Therefore, in this example, we should first click the "Jump to TOP" button, (1), to return to the beginning of the Substance List, where we can begin a search that covers all the listed substances. If you forget to first click the "Jump to TOP" button, (1), the search proceeds downwards to the end of the List, then automatically returns to the beginning and continues.

Search Declarable Substance

---------------------------- Filter Substance list ----------------------------
☐ EU01 ☐ EU02 ☐ EU03 ☐ EU04 ☐ EU05   ☐ OT01   ☐ IA01 ☐ IA02   [Filtering] [Reset]

---------------------------------Search by---------------------------------   --- Sort by ---

| 1309-64-4 | ⦿ Match Partial   [NAME]   [NAME]
| | ○ Match Whole   [CAS]   [Return to TOP]   [CAS]

List Ver.2.00

CAS	EINECS	NAME
13059-67-1		Dichlorotrimethylantimony
130596-72-4		Hexanoic acid, 3,5-dimethyl-, lead(2+) salt
1306-19-0	215-146-2	Cadmium oxide (non-pyrophoric)
1306-23-6	215-147-8	Cadmium sulphide
1306-24-7		Cadmium selenide
1306-25-8		Cadmium telluride
130680-19-2		Lead oxide
1307-86-4		Cobalt hydroxide (Co(OH)3)
1307-96-6		Cobalt oxide
1307-99-9		Cobalt selenide (CoSe)
1308-04-9		Cobalt oxide (Co2O3)
1308-06-1		Cobalt oxide (Co3O4)
13094-04-7		Lead(2+) (R)-12-hydroxyoleate
1309-60-0	215-174-5	Lead(□) oxide
1309-64-4		Antimony oxide

CAS [1309-64-4]   EINECS [   ]

Name [Antimony oxide]

Group Name [Antimony and its compounds]

☐ EU01[2002/95/EC RoHS]   ☐ OT01[ESIS□PBT Fulfilled]□
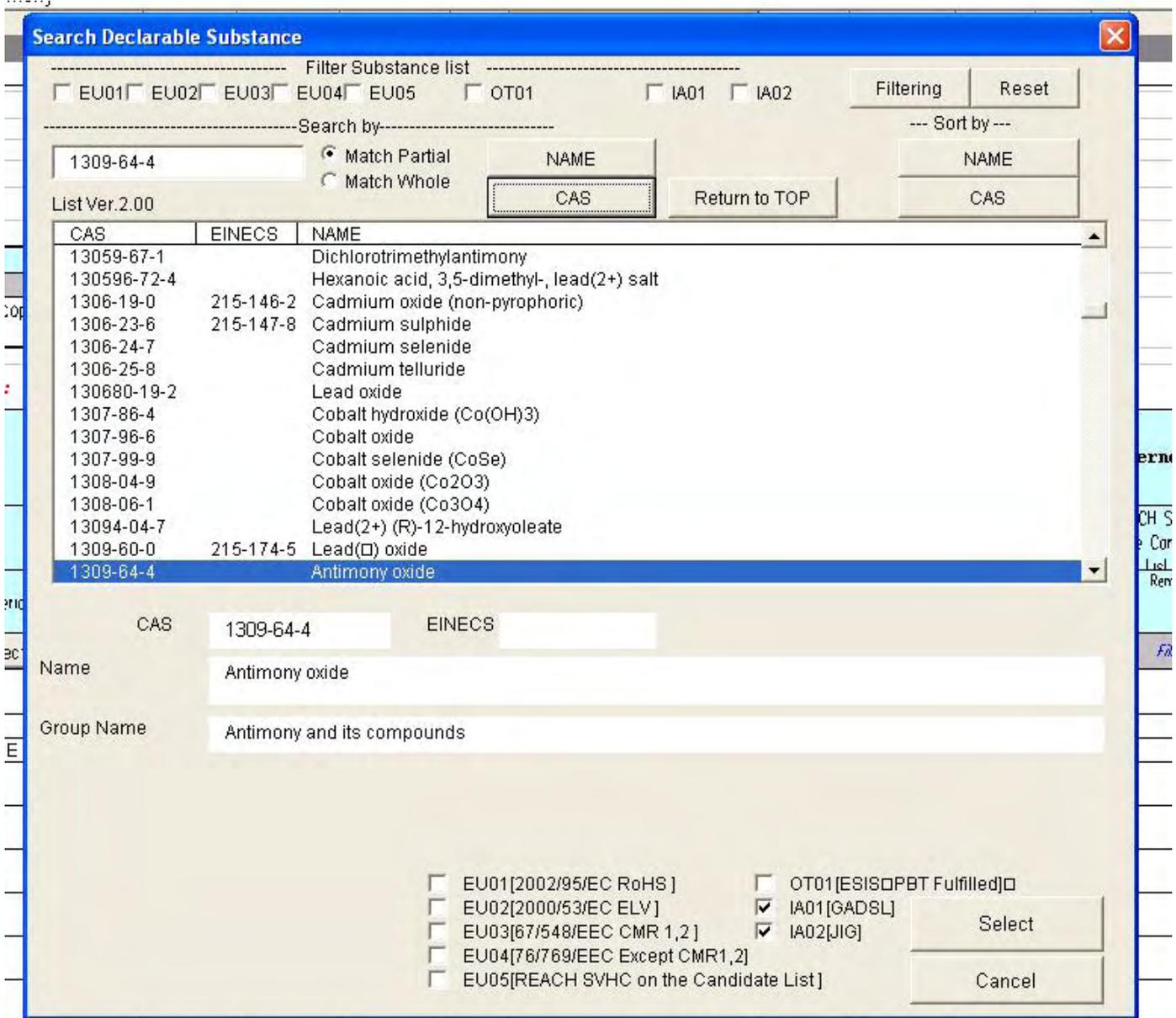☐ EU02[2000/53/EC ELV]   ☑ IA01[GADSL]   [Select]
☐ EU03[67/548/EEC CMR 1,2]   ☑ IA02[JIG]
☐ EU04[76/769/EEC Except CMR1,2]   [Cancel]
☐ EU05[REACH SVHC on the Candidate List]

The Figure above shows the result of a search using the CAS No. "1309-64-4" started at the beginning of the Substance List. The substance we wanted has now appeared. Click on "Select from the List"

letters : Required f	[Delete selected row]				[All Clear]			[Update Auto calculation sheet]	

Material					Substance				
					[Add Substance]		--- within the Material ----		
Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	CAS Number	Concentration (wt%)	Substance Mass	Unit
[Select Material]	*Auto*	*Fill in*	*Fill in*	*Select*	[Select Substance]	*Auto*	*Fill in*	*Auto*	*Auto*
Sn-Pb solder	R351		100	mg	Lead	7439-92-1	65	65	mg
Copper alloys	R312		12	g				0	g
PE (Polyethylene)	P511		1	g	Antimony oxide	1309-64-4		0	g

As the Figure above shows, antimony trioxide (antimony oxide) is now shown in the Substance Name and CAS No. cells.

JAMP

<u>We now add another substance to the material, "PE."</u>

To do this, we click on the Substance field, (1), as shown in the Figure above, then click the "Add Substance" button, (2). This adds an empty Substance Line below the material, "PE," as shown in the Figure below.

Select a substance and fill in the concentration in a way similar to that explained above. This completes the Substance section. In our example, this particular article does not seem to comply with the RoHS Directives. Copper, which has not been covered by the explanations so far, is added.

In the Figure below, to delete the empty Substance Name cell, select it and click the "Delete selected line" button. Repeat this deletion to eliminate unwanted lines. You can select any cell within the List. Please note that once you have deleted a line, the information in the deleted line is unrecoverable.

JAMP

■ Conducting auto calculations   **---- Input_ 2 / Auto calculation sheet**

After completing "Input_ 2" click the "Aggregation" button, (1), for an automatic calculation. "8. Total Amount of Material within Article," a required item of the AIS, is then automatically generated. For this reason, before you export an XML file for reporting, be sure to run this automatic calculation. Automatic calculation results, including "8. Total Amount of Material within Article," can be confirmed in the Auto calculation sheet.

In the Figure above, clicking the "Update Auto calculation sheet" button, (1), brings up the Auto calculation sheet screen, as shown in the Figure below.

Part of the automatic calculation is shown to the right of the List in Input_ 2, in the form of subtotals for the respective lines.

The subtotals displayed include the material mass for each line, the substance mass for each line, and the ratio (%) of the material mass reported to the article. The Figure below shows calculation results displayed to the right of the List in "Input_ 2" This information is not output to the XML file.

Auto calculation results can change depending on whether or not GADSL/JIG was chosen for the substance in "Input_ 2"

Shown on the following page are auto calculation results with "0.

Does not cover GADSL scope" chosen for the declarable substance, as shown in the Figure above.

6. Information To Be declared

Common Product Name: Ceramic Capacitor

Article Mass		
Unit Type	Mass	Unit of Mass
1. Piece	3	g

[Export XML]　[List Version]

Level		Component		Material						Substance --- within the Material ---				
Name	Quantity	Component Name	Quantity	Use	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	CAS Number	Concentration (wt%)	Substance Mass	
		Parts A	1	8.flame spray coating	Sn-Pb solder	R351		100	mg	Lead	7439-92-1	65	65	
		Parts B	1	1.base material	PE (Polyethylene)	PS11		1	g	Antimony oxide	1309-64-4	15	0.15	
										Polybromobiphenyls(PBB)	59536-65-1	20	0.2	

7. Specified Chemical Substance Concentration within Article

Substance Name	CAS Number	Concentration within Article	Unit
Lead	7439-92-1	2.1667	%
Antimony oxide	1309-64-4	5.0000	%
Polybromobiphenyls(PBB)	59536-65-1	6.6667	%

8.Total Amounts of Material within Article

Material	Material Classification Number	Material Mass	Unit
Sn-Pb solder	R351	0.1	g
Copper alloys	R312	12	g
PE (Polyethylene)	PS11	1	g

These auto calculation results carry conditions whose only difference from those referred to two pages earlier is that "0. Does not cover GADSL scope" has been chosen for the declarable substance.

At "6. Information to be declared," the Material Line for copper alloys has been deleted, and for "7. Specified Chemical Substance Concentration within Article," the line for Copper (Metallic) has been erased. Still, at "8. Total Amount of Material within Article," the line for copper alloys remains undeleted. This is because copper is a declarable substance only in GADSL. For a more detailed explanation of such processing, refer to Chapter 5 of the JAMP AIS Manual.

The only information from an "Auto calculation sheet" output by this Tool to an XML file is "8. Total Amount of Material within Article."

JAMP

■ Exporting an XML file ---- Auto calculation sheet

To export an XML file, click the "Export XML" button, (1), in the "Auto calculation sheet"

						JAMP RIS Input support tool									

6. Information To Be declared

Common Product Name	Ceramic Capacitor

	Article Mass		
Unit Type	Mass	Unit of Mass	
1. Piece	3	g	

Export XML ①

List Version

Level		Component		Material						Substance			
										--- within the Material ---			
Name	Quantity	Component Name	Quantity	Use	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	CAS Number	Concentration (wt%)	Substance Mass
		Parts A	1	8.flame spray coating	Sn-Pb solder	R351		100	mg	Lead	7439-92-1	65	65
		Parts B	1	1.base material	PE (Polyethylene)	P511		1	g	Antimony oxide	1309-64-4	15	0.15
										Polybromobiphenyls(PBB)	59536-65-1	20	0.2

7. Specified Chemical Substance Concentration within Article

Substance Name	CAS Number	Concentration within Article	Unit
Lead	7439-92-1	2.1667	%
Antimony oxide	1309-64-4	5.0000	%
Polybromobiphenyls(PBB)	59536-65-1	6.6667	%

8.Total Amounts of Material within Article

Material	Material Classification Number	Material Mass	Unit
Sn-Pb solder	R351	0.1	g
Copper alloys	R312	12	g
PE (Polyethylene)	P511	1	g

Exporting an XML file serves the following two purposes: first, the file is created to temporarily save the AIS data being prepared. Second, the file facilitates the preparation of all data used in reporting.

When generating an XML file to store data being prepared, no special requirements apply. Simply take some control measures to prevent the XML file generated from being used in reporting by mistake.

On the other hand, in preparing data for reporting, the following steps (1) through (3) are required:

(1) All the AIS items to be filled in must be filled in correctly;

(2) At "4. Composition Information," the information on the Component, Material and Substance must be filled in correctly;

(3) The Auto calculation sheet must be updated.

An XML file that does not meet any of these three requirements can create a problem somewhere in the downstream of the supply chain.

JAMP

Click the "Export XML" button to make the screen appear as shown in the Figure below. Specify the destination to which the file is to be saved, correct the file name as needed, and click on "Save (S)."
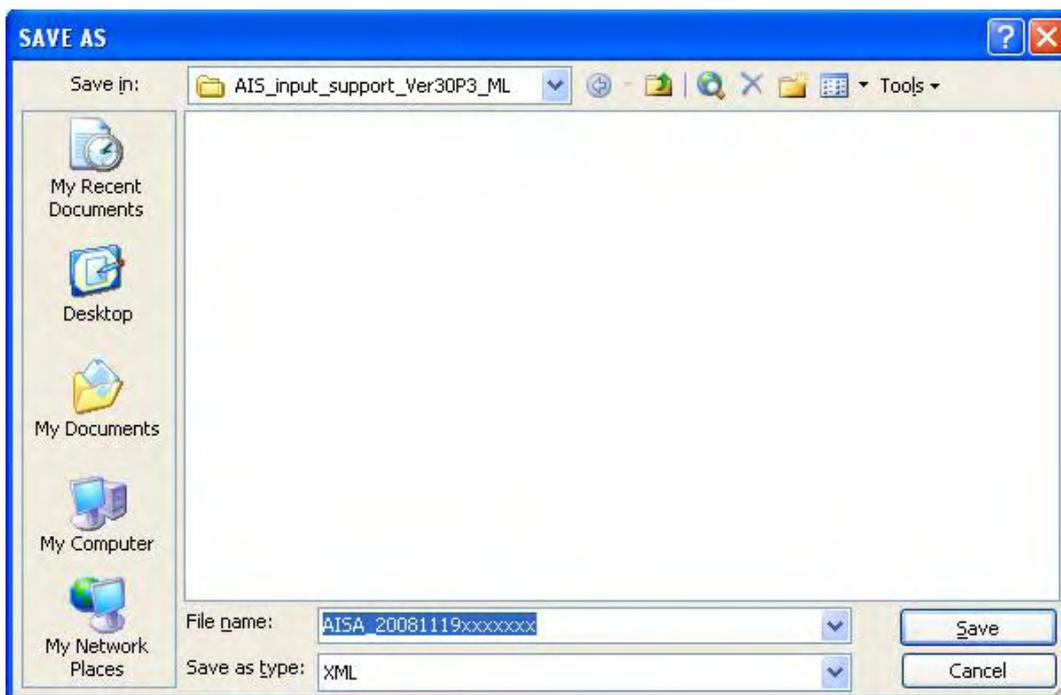
In this example, a file named "AISA_20081119 XXXXXXXX. XML" is exported.

All the entries made in "input_1 and 2" and in "8. Total Amount of Material within Article" from the Auto calculation sheet" are output to the XML file. Of the auto calculation results, the information contained in "input_2" "6. Information to be Declared" and "7. Specified Chemical Substance Concentration within Article" from the "Auto calculation sheet" are not output to an XML file. These items can be calculated from

"4. Composition Information." Information items not output to an XML file are prepared only temporarily to facilitate completion and viewing.

■ Importing an XML file　　　　　　　　　　　**---- Input_1**

To import an XML file, click the "Import XML" button, (1), on "Input_ 1"

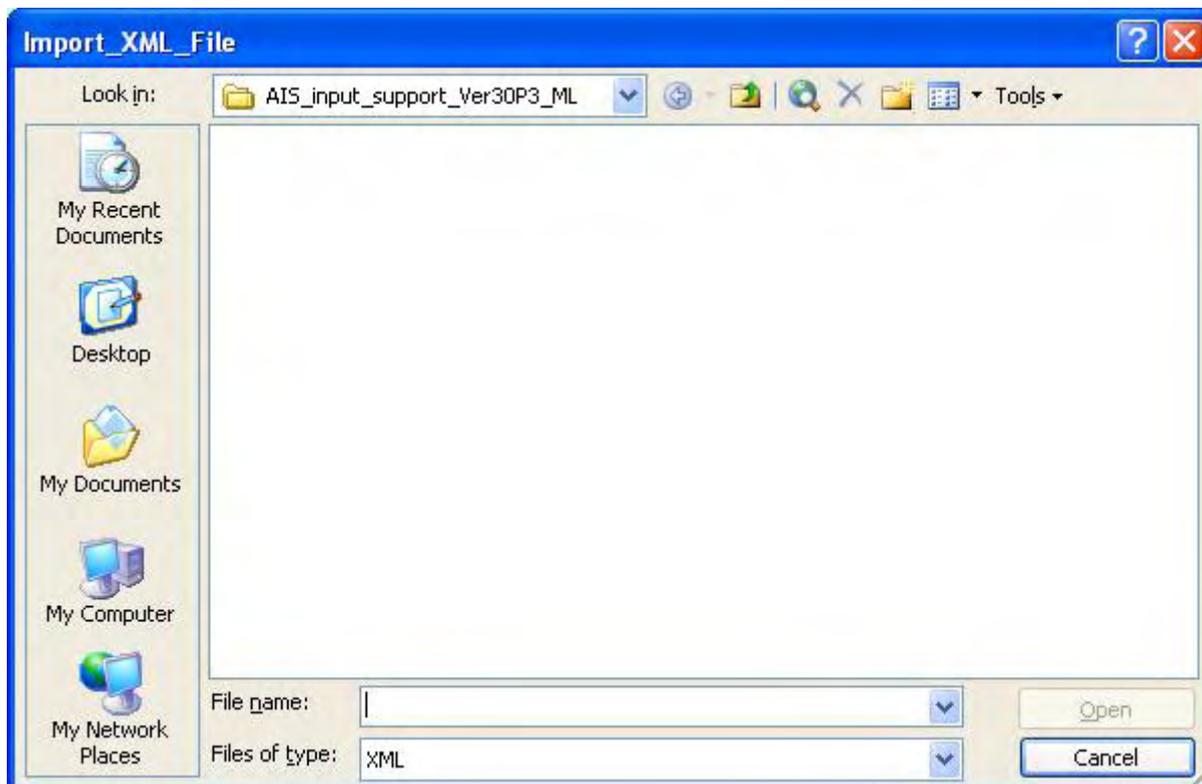| JAMP AIS Input support tool			
Example			
Item	Required/Optional	Data Field	Import XML ①
1. AIS Information			
Format Version	Required	Ver.3.0	Inputting ir
Date Originally Issued	Required	2008-07-31	*Issuing Da*
Date of Latest Revision	Required	2008-10-28	*If not revis*
Revision History	Required	2	Fill in revis
GP(Global Portal) Sheet ID	No need to fill in (Automatically filled)		*Inputting i*
2. Issuing company Information			
Company Name	Required	yyy Trading Corporation	Ex: yyy Tra
JAMP Member Company ID	Optional		*Four digits*
Company ID / ID Organizer	Optional		*Enter the*
Company ID / Entity ID	Optional		*Entity ID r*
Issuing Department	Required	Sales	
Address	Required	XXX, XXXX	
Telephone Number of Issuing Department	Required	03-5209-xxxx	
FAX Number of Issuing Department	Optional		
Email Address of Issuing Department	Optional		
Department in Charge of Preparing AIS	Optional		Please fill
Telephone Number of Department in Charge of Preparing AIS	Optional		
Sheet Reference Number	Optional		*Sheet Refe*
Remarks	Optional		*Optionally*

Clicking this button brings up the screen shown in the Figure below. Specify the file to be imported and click on "Open (O)."

After the file has been imported, the data from the imported XML file will be overwritten into the corresponding fields.

JAMP

See the following page.

Soon after importing the file, as shown in the Figure above, a simple report is displayed, describing the current situation inside the Tool and the status of the imported XML file.

	JAMP AIS Input support tool			
Example				
Item	Required/Optional		Data Field	Import XML
1. AIS Information				
Format Version	Required		Ver.3.0	
Date Originally Issued	Required		2008-07-31	
Date of Latest Revision	Required		2008-10-28	
Revision History	Required		2	
GP(Global Portal) Sheet ID	No need to fill in (Automatically filled)			
2. Issuing company Information				
Company Name	Required		yyy Trading Corporation	
JAMP Member Company ID	Optional			
Company ID / ID Organizer	Optional			
Company ID / Entity ID	Optional			
Issuing Department	Required		Sales	
Address	Required		XXX, XXXX	
Telephone Number of Issuing Department	Required		03-5209-xxxx	
FAX Number of Issuing Department	Optional			
Email Address of Issuing Department	Optional			
Department in Charge of Preparing AIS	Optional			
Telephone Number of Department in Charge of Preparing AIS	Optional			
Sheet Reference Number	Optional			
Remarks	Optional			

The need for revision can arise for a variety of reasons, including, but not limited to, the following: because a significant concentration of an unidentified impurity has been detected in the material, or because the division/department responsible has changed its name. Since an AIS is prepared for each and every article (product), where an Article Number has been changed, you are advised to prepared version 1 of the new Article Number instead of revising the existing AIS.

In the Figure above, a revision has been made because the reporting on "Article A," the article which has been prepared so far in this explanation, has been changed for certain reasons. The items that have been changed are "Date of Latest Revision" and "Revision History."

To export an XML file after a revision, click the "Export XML" button in the Auto calculation sheet. After making any change to "Input_ 2", be sure to click on "Update Auto calculation sheet" to update the auto calculation results.

JAMP

■ Preparing an empty AIS ---- Input_ 2

The "Blank List" button, (1), for the List of "input_2" ist makes the List blank. The Figure above shows the result of clicking this button. There are 4 empty lines. If you need more lines, click on Cell (2), which says "Description of Level and Name Column," then click the "Add Level" button (3). Each such double click adds a single line. Outside this frame border, the cells are protected and cannot be filled in. In addition, each cell has its necessary functions, such as options to choose from, input restrictions, etc. You are therefore advised to follow the instructions above to add a line. The Figure below shows the result of adding a line.

JAMP

■ Copying data between AISs　　　　　　---- Input_ 2

An explanation is now provided on how to copy data between two AISs.

First, name and save the Excel sheet with empty lines we prepared on the preceding page. To do this, use the corresponding function in Excel itself. The Figure below shows how a file name is set up.
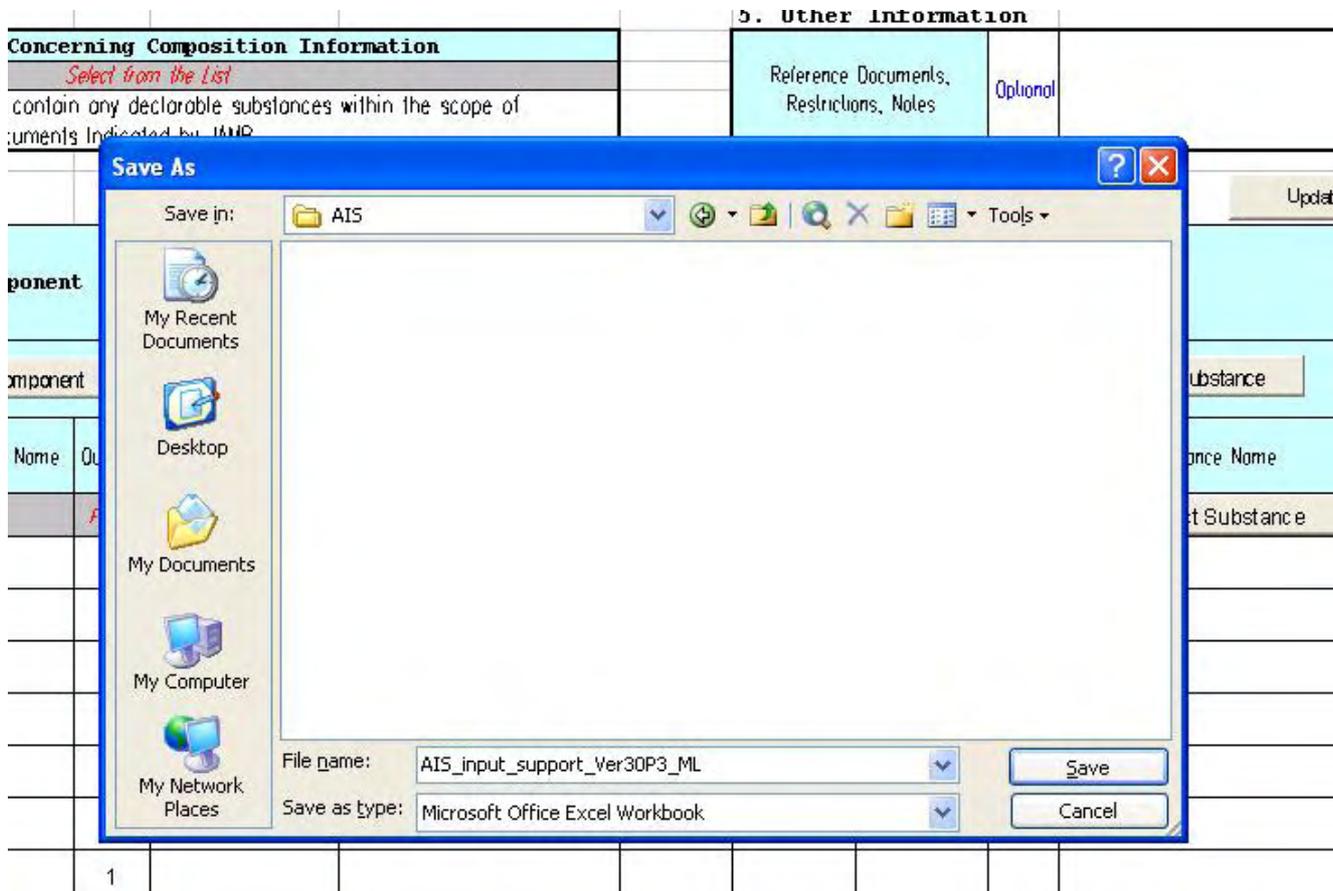
We now have an AIS Tool with many blank lines. Keep this Excel sheet open and perform the following operation: open the Tool we have been using so far and import the XML file that contains the necessary data. The two Tools then appear on the same screen. The result is shown on the screen on the following page.

Level — No need to be filled in for Original Parts		Component		Material						Substance			
Add Level		Add Component		Add Material						Add Substance		--- within the Mole	
Name	Quantity	Component Name	Quantity	Use	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	CAS Number	Concentration (wt%)	Subst Mass
Fill in	Fill in	Fill in	Fill in	Select	Select Material	Auto	Fill in	Fill in	Select	Select Substance	Auto	Fill in	Auto
		Parts A	1	8.flame spray cooling	Sn-Pb solder	R351		100	mg	Lead	7439-92-1	65	
				1.base material	Copper alloys	R312		12	g	Copper (metallic)	7440-50-8	95	1
		Parts B	1	1.base material	PE (Polyethylene)	P511		1	g	Antimony oxide	1309-64-4	15	0
										Polybromobiphenyls(PBB)	59536-65-5	20	
			1										

Level — No need to be filled in for Original Parts		Component		Material						Substance			
Add Level		Add Component		Add Material						Add Substance		--- within the Mole	
Name	Quantity	Component Name	Quantity	Use	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	CAS Number	Concentration (wt%)	Subst Mass
Fill in	Fill in	Fill in	Fill in	Select	Select Material	Auto	Fill in	Fill in	Select	Select Substance	Auto	Fill in	Auto
			1										
			1										
			1										
			1										

The Figure below shows how an area of the List above is selected using functions in Excel itself.

Level — No need to be filled in for Original Parts		Component		Material						Substance			
Add Level		Add Component		Add Material						Add Substance		--- within the M	
Name	Quantity	Component Name	Quantity	Use	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	CAS Number	Concentration (wt%)	Su
Fill in	Fill in	Fill in	Fill in	Select	Select Material	Auto	Fill in	Fill in	Select	Select Substance	Auto	Fill in	
		Parts A	1	8.flame spray cooling	Sn-Pb solder	R351		100	mg	Lead	7439-92-1	65	
				1.base material	Copper alloys	R312		12	g	Copper (metallic)	7440-50-8	95	
		Parts B	1	1.base material	PE (Polyethylene)	P511		1	g	Antimony oxide	1309-64-4	15	
										Polybromobiphenyls(PBB)	59536-65-	20	
			1										
			1										

Level — No need to be filled in for Original Parts		Component		Material						Substance			
Add Level		Add Component		Add Material						Add Substance		--- within the Mole	
Name	Quantity	Component Name	Quantity	Use	Material Name	Material Classification Number	Material Code of Public Standard	Material Mass	Unit	Substance Name	CAS Number	Concentration (wt%)	Subst Mass
Fill in	Fill in	Fill in	Fill in	Select	Select Material	Auto	Fill in	Fill in	Select	Select Substance	Auto	Fill in	Auto
			1										
			1										
			1										
			1										

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The Figure below shows pasting what was copied from the left List on the preceding page onto the right List using functions in Excel itself. (Operations with Excel: Edit (E) menu – Copy (C). Specify the copy destination cell and Edit (E) menu – Paste (P).)

In this way, you can use Excel's own functions to copy a batch of information on materials and substances, or a batch of information on the substances and materials contained in a Component, etc., between two AIS Tools. Keeping information on many general purpose components within a single tool can streamline the completion of a new AIS.

Note:

While it is efficient to prepare a list by copying information between multiple Excel sheets, we do not recommend this method for users who are not well acquainted with Excel operations because it requires that Excel's own functions are used. Users who are not familiar with Excel may make some unexpected errors in the course of such copying. In addition, with respect to the information contained in the AIS created in this way, an auto calculation should be conducted and an XML file exported. This XML file should then be imported and the information displayed on the tool's screen checked. This procedure of "Aggregation," "Export XML" and "Import XML" activates the Tool's checking function. This also normalizes any unexpected state that may arise from copying data.

Data

■ **Excel macros**

   A macro, in the precise sense of the term, refers to a method for setting up, recording and reusing an operating procedure and programs. Excel can also be used to create a macro to record and rerun an operating procedure. This kind of macro is written in a programming language called "VBA" (Visual Basic for Applications), which lets you add new functionalities to Excel as you wish. Our Tool has also used programs created in VBA to add to Excel such necessary functionalities as the search for substances, the import and export of XML files, and so on. For this reason, if you have added a VBA program to Excel, people say things like "a macro is used."

   Since users can add macros as they wish, a malicious user can create and distribute a macro that makes computers malfunction, alters data stored in computers, etc. To prevent such incidents, Excel has some restrictions on the use of macros.

   To run a macro, either of the following procedures must be followed:

   (1) In the Excel menu, choose **"Tools (T)"** → **"Macros (M)"** → **"Security (S)…"** → **"Security Level"** page, where the "**Level**" is to be set to "**Medium**."

   (2) Start up this Tool, which is an Excel file.

   (3) In the screen that first appears in Excel, click on "**Enable macros (E)**."

   In the case of Excel 2007:

   (1) After you start up this Tool, a security warning appears below the Excel menu (the toolbar on the upper part of the screen). Click on "**Options …**"

   (2) The Security Option screen appears. Choose "**Enable this content**."

   While Excel is running the macro, if the operation cannot proceed, the "**Runtime error:** '**1004'**" message will be displayed. In such a case, delete the message using "**Exit (E)**." Depending on the situation, the subsequent operation might become unstable. We therefore recommend that you save the data and restart the Tool. If the same operation conducted again results in the same "**Runtime error:** '**1004'**," report the situation to the JAMP Secretariat. The consortium will use your reports in its efforts to improve the Tool further.
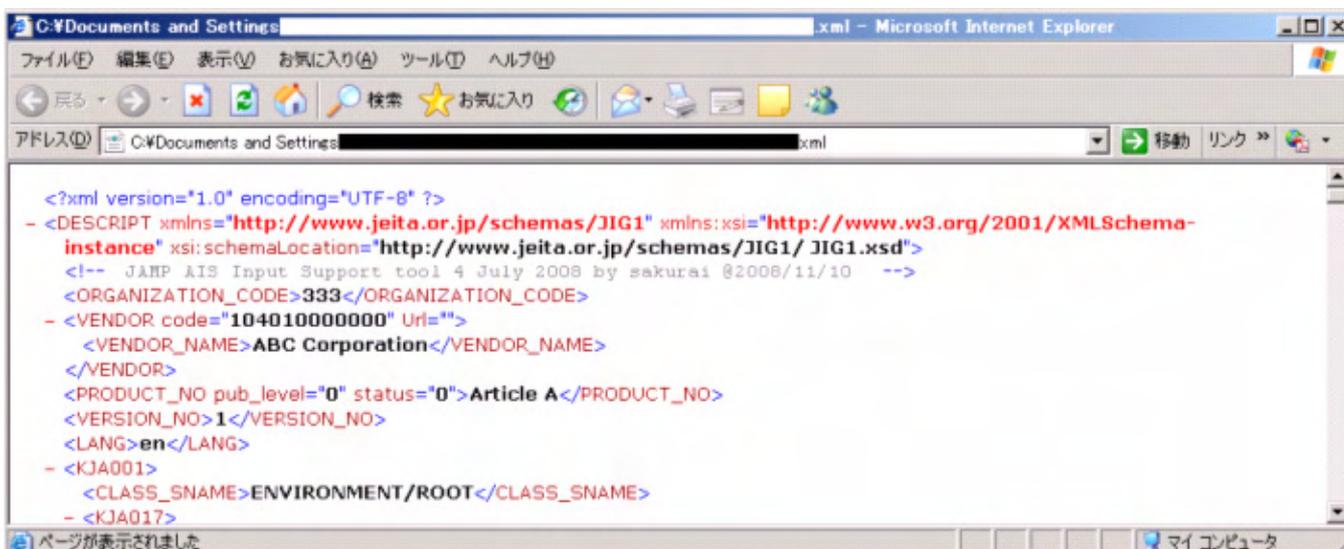
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■ What is XML?

XML stands for "eXtensible Markup Language," which describes information of many different kinds. Since this particular technology is designed for the Internet, general explanations on the language can be found all over the Internet. You are advised to read these explanations. XML files are written in text format and consist of individual data and tags that surround them and define their respective data types. In this way, each piece of data carries a description of its data type. In addition, since the language lets you define the structure of different pieces of data, you can represent, for instance, the Component List's tree structure in a visually understandable form. Although it is a rather new technology that first appeared in 1998, XML has already been used to process orders placed and received for commodities and to exchange distribution data, medical charts and so on over the Internet. In addition, international information exchange standards essentially make the use of XML a prerequisite.

■ AIS XML files

The Figure below shows only a small part of the beginning of an AIS XML file created with our Tool and displayed in Microsoft Internet Explorer. AIS basically communicates information using such XML files.

To save AIS data, you can name a whole Excel sheet and save it. You can also export an XML file much smaller in size and save the data contained in it to save on file storage capacity.

We provide developers with XML schemas and an environment information dictionary for XML files used with AIS.

■ AIS tools

AIS tools can include the following, each of which serves a different purpose:

- <u>Preparation support for original parts ("upstream articles"). Example: "AIS Input Support Tool"</u>;
- <u>Preparation support for complex articles ("mid- and downstream articles"). Example: "JAMP AIS tool for Integration and Simplification"</u>;
- <u>Viewing. Examples: "AIS Input Support Tool / JAMP AIS tool for Integration and Simplification".</u>

In addition, such tools can be classified as follows according to where AIS is used:

- <u>For general PCs</u>
- Internal office systems
- Links between corporations and JAMP

The tools underlined above are already offered by JAMP as of July 2008. They can be used with general standalone PCs. (The OS used must be Windows and the Excel application is required.) As explained on the previous page, AIS basically communicates information in the form of standardized XML files. This means that any tool can handle AIS information as long as it meets the XML file standard. In addition, JAMP hopes that many such tools will become available in the future. JAMP has an attestation system to certify tools offered to the general public. In this system, JAMP confirms whether or not a given tool satisfies the standard in an effort to maintain a certain level of compatibility.

In addition, JAMP is working to build up information infrastructure that facilitates the smooth provision and receipt of AIS information that is created. Please see how this infrastructure building program is progressing by looking at the JAMP and other websites.

(This section was written on November , 2008.)

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