

5. Glossary

	Term	Definition
A	Accepting loss	Means the quantity of a subject substance that has volatilized in the gap inside the tank and released when filling the tank with the substance.
	Actual measurement method	The concentration of a subject substance in exhaust gas or waste actually measured at major exhaust ports (such as smokestacks or exhaust ports) is multiplied by the quantity of exhaust gas, effluent, or waste.
	Adhesion process	In this process, adhesives are coated on paper, metal, or plastic materials by brush or spray coating to be bonded.
	Annual quantity purchased (brought in)	Means the quantity of raw materials or materials purchased in a relevant year, or the quantity brought in without paying for them (acceptance from another establishment of the same business, or acceptance by storage businesses of the substance owned by other businesses). The bringing-in of substances in liquid or gaseous form into storage tanks requires special attention.
	Annual quantity handled	Means the mass of a subject substance contained in raw materials or materials handled in an establishment in a relevant year. For the sake of convenience in this manual, the annual quantity handled is regarded as the sum of the annual quantity produced and the annual quantity used.
B	Breathing loss	Means the quantity of vapor containing a subject substance released from a tank due to pressure change resulting from the temperature change between daytime and nighttime.
	Business	A single entity that performs business activities designated as requiring notification (such as an enterprise)
	Business establishment	A single place where business activities designated as requiring notification are performed. In principle, a "business establishment" is an entity that continuously performs business activities within the same or adjacent premises under the management of one administrative body (such as an enterprise).
	Businesses requiring notification	Those businesses must make a notification of the quantity of subject substances released or transferred. They are specified by type of industry, number of full-time employees, annual quantity of subject substance handled, and presence of specific requirement facilities.
C	CAS No.	Registration numbers for chemical substances assigned by Chemical Abstracts Service, which is one of the departments of the American Chemical Society. This number allows you to check if substances with different names are identical substances. It is effective for information retrieval, and is widely used globally.
	Content	Content is the percentage (%) of the mass of a subject substance contained in raw materials or materials. One of the requirements of products whose quantity must be assessed is that a subject substance is contained in the mass percentage of 1% or more (0.1% or more in the case of specific class 1 designated chemical substances).

Term	Definition
Conversion coefficient to metallic element	Coefficient used for converting the quantity of a chemical compound into the value of metallic element (= Sum of atomic weights of the metallic elements in the compound / Molecular weight of the compound). The value of the element can be calculated by multiplying the quantity of the chemical compound by the conversion coefficient.
Chemical substances converted to element	Of chemical substances to be notified, the quantities of some substances must be converted into metallic element values when notifying the quantity released or transferred. Not only metallic compounds such as water-soluble compounds of zinc and lead and their compounds, but also inorganic cyanogen compounds (excluding complex salts and cyanate), boron and its compounds, and hydrogen fluoride and its water-soluble salts are included in this category. The quantity of these substances must be converted into the value of metallic elements, cyanogen, boron, and fluorine.
Chemical substance management guideline	The guideline defines chemical substance management measures that businesses should take to promote voluntary management of chemical substances and prevent interference with environmental preservation according to Clause 1, Article 3 of the Law. Businesses have an obligation to manage chemical substances according to the guideline and strive to make people aware of the management status.
D Dyeing process	In this process, textiles and clothes are dyed by permeating a dyestuff into them, the quality of textiles is changed by immersing them in a textile treatment agent (to soften them), and excessive adhered pigments are washed away.
E Environmental risk	<p>The risk (possibility) of chemical substances having an adverse impact on human health or ecological system through the environment</p> <p>The magnitude of the risk is determined by the degree of toxicity of chemical substances and degree of exposure to those substances in the course of breathing, eating, skin contact, etc. (degree of exposure), which is conceptually expressed by the following formula.</p> $\text{Environmental risk posed by chemical substances} = \text{Toxicity} \times \text{Degree of exposure}$ <p>Chemical substances cannot be simply divided into safe and toxic groups. For example, long-term or high exposure to even a low-toxicity chemical substance may have an adverse effect. On the other hand, even if the toxicity of a chemical substance is high, short-term or low exposure may decrease the possibility of being adversely affected. Environmental risk cannot be eliminated, but can be minimized to the extent where no adverse effect can be produced by decreasing the exposure or using low-toxicity substances. However, technical or cost restrictions must be taken into consideration.</p>

(cont'd)

Term		Definition
G	Group of substances	Means multiple chemical substances that are specified as a group of substances. In addition to "chemical substances to be converted to elements", "straight-chain alkyl benzene sulfonic acid and its salts (carbon number of alkyl base is from 10 to 14 and their mixture)", "xylene", "PCDDs", etc. are considered to be groups of substances.
H	Handling process	Handling process means the processes where subject substances or raw materials or materials containing the subject substance are handled.
I	Individual substance	Individual chemical substance (with a single composition) that make up a group of substances.
	Industries requiring notification	Industries that may release a subject substance to the environment in the process of producing, using, and handling the subject substance are required to make a notification. One of the requirements for notification of the quantity released or transferred is that the businesses are engaged in those industries.
L	Landfill inside the relevant establishment	Means the disposal of waste containing a subject substance to a landfill site inside the establishment.
	Latent quantity released to the medium to which the smaller (larger) quantity is released	Means the quantity of a subject substance that may be released to the medium to which the smaller (larger) quantity is released. If exhaust gas or effluent treatment is not carried out, the quantity becomes equal to the quantity released to the medium to which the smaller (larger) quantity is released. If exhaust gas or effluent treatment is carried out, the quantity calculated by multiplying the latent quantity by the removal efficiency of the treatment becomes equal to the quantity released to the medium to which the smaller (larger) quantity is released.
M	MSDS (Material Safety Data Sheet)	Data sheet (document, magnetic disc, etc.) that shows properties, handling methods, toxicity information of the products containing class 1 designated chemical substances specified by the Law (target of PRTR) or class 2 designated chemical substances (designated chemical substances), the content of the subject substance, etc. It is mandatory for businesses handling specified chemical substances to attach MSDS to the products they provide to other businesses.
	Maximum latent quantity released to the atmosphere	Designated as the quantity calculated by subtracting the quantity discharged as products and the quantity contained in waste from the annual quantity of the subject substance handled. It is the maximum possible quantity that may be released to the environment (atmosphere, water area, and soil).
	Mechanical processing process	Process of shaping metallic or other materials into desired shapes by cutting or polishing.

Term	Definition
Metaric element	A composition consisting of a single element. "Chemical substances to converted to elements" include metallic elements such as zinc and lead, cyanogen, boron, and fluorine that require caluculation of annual quantily handled.
Method using discharge coefficient	The quantity of a subject substance released can be calculated by multiplying the discharge coefficient, which is a typical value of the ratio for handled quantity, by the handled quantity.
Medium to which larger (smaller) quantity is released	Means the medium used to determine the order of calculation when a subject substance is released both to the atmosphere and to water area. Subtracting the smaller quantity released (and the quantity released to soil) first from the maximum latent quantity released to the environment will minimize the error both of the smaller or larger quantity released.
Material balance method	Material balance is used to calculate the quantity of a subject substance according to the "difference between the quantity brought in and discharged from the establishment (or process) (calculated by subtracting the quantity discharged as products, and other released or transferred quantities from the handled quantity)".
Method of using physical properties	A method of calculating released or transferred quantity by estimating the concentration of a subject substance in exhaust gas, effluent, or in waste using saturation vapor pressure or solubility.
N	Number of full-time employees Means the sum of those who are employed without a defined employment period or with an employment period of one month or longer (including part-time employees and student workers) as of April 1 of the relevant fiscal year. Those who were employed for 18 days or more during February and March of the previous fiscal year must also be included in the number of full-time employees.
O	Other processes where solvents are used These include processes where solvent is used, such as the process of peeling off the pigments, etc. adhered to the surface of products or parts by immersing them in solvent, and the process of etching the surface of metallic materials.
P	PRTR(Pollutant Release and Transfer Register) A system under which businesses assess the quantity of specific chemical substances which are hazardous to human health or the ecological system that they release to the environment (atmosphere, water area, and soil), and transfer to outside their business establishments in the form of waste, and notify those quantities. The government then compiles the released or transferred quantities according to estimates based on reports from those businesses and statistical materials, and officially announces the data.
	Printing process This is a process of printing ink on paper, metal plates, and plastic plates by letterpress printing, litho printing, and the intaglio printing method.

Term	Definition
Production	Means the generation of a subject substance by chemical reaction or refining method for the sake of selling or being used as a raw material inside the establishment. In this manual, the quantity of a subject substance generated by chemical reaction or refining method is calculated as the annual quantity produced (including the case where by-product is contained in the product manufactured by the business at the mass percentage of 1% or more [0.1% or more in the case of specific class 1 designated chemical substances], and when it is clear that the substance is contained in exhaust gas, effluent, waste, etc [when the subject substance is generated in the process of effluent treatment, and when the subject substance is separated in the process of reaction or effluent treatment]).
Products	Means goods or semi-processed goods manufactured in the process where a subject substance is handled.
Painting process	This is a process to paint the surfaces of parts and products by spraying or electropainting.
Plating process	This is a process of coating the surface of metallic or non-metallic products with a thin metallic film.
Q Quantity transferred to sewage works	Means the quantity of wastewater containing a subject substance released to sewage works.
Quantity of storage at the beginning (end) of the fiscal year	Means the mass of raw materials or materials stored in an establishment as of April of the relevant fiscal year (or March of the previous relevant fiscal year).
Quantity contained in waste	The quantity contained in waste means the quantity of a subject substance contained in waste such as residue of raw materials or materials in containers, spent oil, waste, the sludge from exhaust gas or effluent treatment facilities, and activated carbon. When the treatment of waste is consigned to a waste treatment service, a notification must be made as "transfer to outside the relevant establishment" (transfer), and when the waste is disposed of in landfills inside the establishment, a notification must be made as "landfill disposal at the relevant establishment".

	Term	Definition
R	Recycling	<p>Generally speaking, recycling means to reproduce and reuse waste. The following concept applies in PRTR notifications.</p> <p>When waste is reused within a business establishment If the waste generated by a business establishment is reused within the establishment, notification of "off-site transfer in waste" is not required, or the quantity of waste reused need not be included in the quantity used. (Otherwise, the quantity assessed at the time of purchase or manufacture would be counted twice.)</p> <p>(Example) If solvent is recovered with a solvent recovery system and recycled within the business establishment, or if waste liquid generated by a factory is purified and reused within the factory, you do not have to submit notifications as "off-site transfer in waste."</p> <p>When waste is handed over to an external recycling service</p> <ul style="list-style-type: none"> -1 The waste that is generated within a business establishment and sold to an external recycling service does not fit into the waste defined by the Waste Treatment Law. Therefore, you do not have to submit notifications as "off-site transfer in waste." -2 The waste that is generated within a business establishment and handed over to an external recycling service for free or by paying money fits into the waste defined by the Waste Treatment Law. Therefore, you have to submit notifications as "off-site transfer in waste." <p>In either of the above cases, if you purchase and use raw materials or materials recycled from the waste that was handed over to the external recycling service, you have to include the quantity purchased to the quantity used.</p> <p>(Example) If spent solvent generated within a business establishment is sold to an external recycling service, you do not have to submit notifications as "off-site transfer in waste." If the spent solvent is handed over to an external recycling service for free or by paying money, you have to submit notifications as "off-site transfer in waste."</p>
	Release to public water area	Means the release of effluent containing a subject substance into public water bodies such as rivers, sea areas, lakes, and irrigation channels.
	Release to water area	Means the release of effluent containing a subject substance to outside the establishment. If effluent is discharged to a public water area, notification must be made as "release to public water area" (release), and if it is discharged to sewage works, notification must be made as "transfer to sewage works" (transfer).

Term	Definition						
Release as products	Means the transfer of products containing a subject substance to the next process or selling them to other businesses. The quantity consumed by chemical reaction is included here for calculation. This does not require notification under the PRTR system.						
Release to the atmosphere	Means the release of exhaust gas containing a subject substance from exhaust ports or smokestacks to the atmosphere. The release through joints of pipes or volatalization of solvent component in open areas is included here.						
Release to soil inside the relevant establishment	Means the release of a subject substance to soil inside the establishment through leakage, spraying, or penetration to underground.						
Release	Release means that a subject substance is discharged to the environment (the atmosphere, water area, and soil) during business activities. A notification must be made as "release to the atmosphere", "release to public water area", and as "release to soil inside the relevant establishment", depending on the status of the release. When the waste is disposed of in a landfill site inside the establishment, the notification must be made as "landfill disposal at the relevant establishment".						
Releasing point	Means the points inside an establishment where a subject substance is released to the atmosphere, water area, or to soil in each process inside the establishment, or the points where waste is generated.						
Reaction and mixing process	This is a process of generating a new chemical substance by causing a reaction among raw materials, and manufacturing products by mixing raw materials (without chemical reaction), refining by distillation, and by separating solids and liquids.						
Risk communication	Businesses, citizens, NGOs and the government must strive to share proper information on the environmental risks posed by chemical substances by communicating with each other. This is called risk communication.						
S	<table border="1"> <tbody> <tr> <td data-bbox="236 1532 616 1659">Sterilizing and disinfecting process</td> <td data-bbox="616 1532 1418 1659">In this process, raw materials such as food or lumber, and tools and equipment used in establishments are sterilized or disinfected by spraying sterilizer or disinfectant on them, or filling them into equipment, etc.</td> </tr> <tr> <td data-bbox="236 1659 616 1868">Shape of raw materials or materials (products) whose quantity used must be grasped (requirement of products)</td> <td data-bbox="616 1659 1418 1868">This is called the requirement of products in the Law. The state of raw materials or materials or the shape of raw materials or materials resulting from handling are specified. You must calculate the annual quantity of subject substances handled whose shapes are specified here.</td> </tr> <tr> <td data-bbox="236 1868 616 1977">Subject substance (Class 1 designated chemical substances)</td> <td data-bbox="616 1868 1418 1977">Means class 1 designated chemical substances designated by government ordinance. The quantity of those substances must be assessed and notified.</td> </tr> </tbody> </table>	Sterilizing and disinfecting process	In this process, raw materials such as food or lumber, and tools and equipment used in establishments are sterilized or disinfected by spraying sterilizer or disinfectant on them, or filling them into equipment, etc.	Shape of raw materials or materials (products) whose quantity used must be grasped (requirement of products)	This is called the requirement of products in the Law. The state of raw materials or materials or the shape of raw materials or materials resulting from handling are specified. You must calculate the annual quantity of subject substances handled whose shapes are specified here.	Subject substance (Class 1 designated chemical substances)	Means class 1 designated chemical substances designated by government ordinance. The quantity of those substances must be assessed and notified.
Sterilizing and disinfecting process	In this process, raw materials such as food or lumber, and tools and equipment used in establishments are sterilized or disinfected by spraying sterilizer or disinfectant on them, or filling them into equipment, etc.						
Shape of raw materials or materials (products) whose quantity used must be grasped (requirement of products)	This is called the requirement of products in the Law. The state of raw materials or materials or the shape of raw materials or materials resulting from handling are specified. You must calculate the annual quantity of subject substances handled whose shapes are specified here.						
Subject substance (Class 1 designated chemical substances)	Means class 1 designated chemical substances designated by government ordinance. The quantity of those substances must be assessed and notified.						

Term	Definition
Storage process	This is a process to store raw materials, materials, products, etc. in the storage facilities inside the establishment such as storage tanks.
Specific class 1 designated chemical substances	Of the subject substances specified as class 1 designated chemical substances, those that are recognized as carcinogenic, and which meet the requirements of the annual quantity handled (0.5 t/year or more) and the content (mass percentage of 0.1% or more) are specified as specific class 1 designated chemical substances, and so stricter regulations apply to them.
Specific requirement facilities	Specific requirement facilities are specified as buildings, structures, and other facilities (owned by businesses engaged in metal mining, crude oil, and natural gas industries), sewage water terminal treatment facilities (owned by businesses engaged in sewage water treatment businesses), general and industrial waste treatment facilities specified by the law governing waste treatment and cleaning (owned by businesses engaged in waste treatment and industrial waste treatment industries), and specific facilities specified by the Law Concerning Special Measures for PCDDs. That businesses have specific requirement facilities is one of the requirements for notification, as well as that they meet the requirement of the annual quantity of a subject substance handled.
T Toxicity	One of the properties of chemical substances (including melting point or density) that indicates the toxic state of the substance. The toxicity of chemical substances is divided into acute toxicity and chronic toxicity depending on the period of time required to have adverse impact on human health or the ecological system. Toxicity includes carcinogenicity and reproductive toxicity. The level of toxicity posed to humans is rarely certain because the results of animal experiments are applied to humans. Acute toxicity means that only one dose of or short-term exposure to a chemical substance results in symptoms or death within several days in animal experiments. Chronic toxicity, meanwhile, means that repeated dose of or long-term exposure to a chemical substance results in symptoms or death after several months. Carcinogenicity and reproductive toxicity, which are classified as chronic toxicity, have an effect at lower concentration compared with acute toxicity.

	Term	Definition
	Transfer	<p>Transfer means the movement of waste containing a subject substance to outside business establishments as a result of business activities. Transfer includes the case where treatment of waste is consigned to a waste treatment service, or waste is carried to another establishment of the relevant business for treatment. "Transfer" does not apply to the case where a subject substance is carried to another place as products of the relevant business. In such a case, notification is not necessary.</p> <p>It also applies to the case where a substance is carried to another place as waste to be recycled. On the other hand, if a substance is sold to another business for recycling, it is considered as merchandise and so notification is not required.</p> <p>When making a notification, "transfer" must be classified as "transfer to outside the relevant business", and "transfer to sewage works" which is the case where wastewater containing a subject substance is released to sewage works, etc.</p>
	Transfer to outside the relevant establishment	Means to treat or disposed of the waste containing a subject substance generated inside the establishment in a place other than the premises of the establishment, or to recycle the waste with no value outside the establishment.
U	Use	Means to accept a subject substance (or raw materials or materials containing the substance) from outside the establishment and manufacture products containing the substance, or use it for painting or washing. For the sake of convenience in this manual, the case where a subject substance (or raw materials or materials containing the substance) is brought into a storage tank is regarded as "use".
W	Water-soluble	If a substance is water-soluble, it means that the mass percentage of 1% or more (10 g/L or more) of the substance is dissolved in neutral water (pH7) at room temperature (25).
	Washing process	In this process, stains adhered to products and parts are washed away by using a water-based detergent (such as surface active agent) or non-water-based detergent (such as chlorine-based solvent). This process includes the process of dry-cleaning clothes.