

## Glossary (Environment)

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#### **Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes**

PCB is an acronym for polychlorinated biphenyl.

The Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes (enforced in 2001 in Japan) aims to establish a system for storing and disposing of PCB wastes and ensuring reliable and proper disposal.

#### **biodiversity**

Variation and interrelation of living things.

The Convention on Biological Diversity concluded in Rio de Janeiro in 1992 defines diversity on three levels: ecosystem, species, and genetic.

#### **BOD**

An acronym for biochemical oxygen demand.

BOD is used as an index that shows the level of water pollution caused by organic compounds. BOD refers to the amount of oxygen (mg/L) consumed when organic compounds in a body of water are broken down through oxidative decomposition by aerobic microorganisms.

**Brother Earth (a Brother term)**

Logo and slogan (established in 2010) that symbolize the Brother Group's environmental activities.

The Brother Group's environmental activities are publicized worldwide under the unifying message of "Working with you for a better environment."



**Brother eco point program (a Brother term)**

To raise the environmental awareness of employees and thus help prevent global warming, eco points are awarded for eco-conscious actions by employees and their families. Eco points are also awarded for used consumables collected from customers. Brother carries out various environmental contribution activities depending on the number of points earned.

**Brother Green Label (a Brother term)**

Brother's unique environmental label (established in October 2001; revised in February 2007). Brother Industries, Ltd. awards the label to products that meet voluntary environmental standards (Brother Green Label standards) for products.

**CDP**

An international NPO headquartered in London, U.K.

Since 2003, CDP has been working with institutional investors to request major companies worldwide to disclose information about business risks associated with climate change, business opportunities, greenhouse gas (GHG) emissions, etc. CDP evaluates the collected information and publicizes the results.

**chemSHERPA**

An acronym for chemical information sharing and exchange under reporting partnership in supply chain.

This is a system for sharing information about chemical substances contained in products in the supply chain. It started operation in 2015 under the initiative of the Japanese Ministry of Economy, Trade and Industry. It conforms to international standards in order to standardize the format and rules for sharing information.

**Click for the Earth (a Brother term)**

One of Brother's environmental conservation activities that Brother provides with stakeholders. Each visitor is encouraged to choose one activity to support and click the "Donate" button. Brother will make a donation of one yen per click on each visitor's behalf. Your click will help to regenerate forests and to stop desertification.

**COD**

An acronym for chemical oxygen demand.

COD is used as an index that shows the level of water pollution caused by organic compounds. COD refers to the amount of oxygen (mg/L) consumed when organic compounds in a body of water are chemically decomposed by oxidizing agents (potassium permanganate or potassium dichromate).

**tenth meeting of the Conference of the Parties (COP 10) to the Convention on Biological Diversity**

The tenth meeting of the Conference of the Parties (COP 10) to the Convention on Biological Diversity that was held in Nagoya City, Aichi Prefecture. At COP 10, the Strategic Plan for Biodiversity 2011–2020 (commonly known as the Aichi Biodiversity Targets) was adopted to take effective and urgent action to halt the loss of biodiversity.

**Eco Declaration (ECMA370)**

The Eco Declaration is a standardized format and system for disclosing the environmental characteristics of electric home appliances (including fax machines and All-in-Ones) in Europe. The Eco Declaration is useful for comparing two or more products.

**e-learning**

Learning/education and training using the Internet (or an intranet).

**emissions**

Substances emitted or released primarily into the atmosphere.

**environmental accounting**

A mechanism that enables companies, etc., to realize the cost of environmental conservation in business operations and the effect derived from the activities, and to take measurements and report as quantitatively as possible (in monetary or physical units), in pursuit of sustainable development.

**environmental information system (a Brother term)**

The Brother Group established its proprietary environmental information system in cooperation with suppliers to investigate, avoid the use of, and manage chemical substances contained in products. The environmental information system has been improved to quickly comply with laws and regulations in respective countries.

**environmental management system**

A mechanism (e.g. a framework, or a procedure) that enables organizations to set and achieve their environmental policies and targets in promoting voluntary environmental conservation activities.

**ErP Directive (a framework to set ecological design requirements for energy-related products)**

ErP is an acronym for Energy-related Products.

The ErP Directive (enforced in 2005; revised in 2009) establishes a framework for the eco-conscious design of energy-related products, such as air conditioners and refrigerators sold in the EU, to help prevent global warming.

**FSC**

An acronym for the Forest Stewardship Council.

FSC is an international organization that promotes responsible management of forests and certifies distribution and processing of timber from forests as well as timber-producing forests themselves.

**green procurement**

Before products and services are purchased, the need for the purchase should be fully considered. If the purchase is necessary, products and services with minimal environmental impact should preferentially be purchased, without focusing solely on price and quality. This concept is called "green purchase." Green procurement refers to procurement of products and services based on the concept of green purchase.

**ISO 14001**

An international standard for environmental management systems (published in 1996) established by the International Organization for Standardization (ISO).

**ISO 14064**

An international standard established by the International Organization for Standardization (ISO) regarding calculation, reporting, and verification of greenhouse gas (GHG) emission reductions in organizations and projects (published in 2006).

**LCA**

An acronym for life cycle assessment.

A technique for quantitatively evaluating resource input and environmental impact in the product lifecycle (from procurement of raw materials, to production, logistics, use, and disposal) and their potential impact on the global environment and ecosystem.

**LRQA**

An acronym for Lloyd's Register Quality Assurance Limited.

A certification organization which conducts examinations in the fields of quality, environment, and safety and health, etc. LRQA confirms and provides validation and verification regarding greenhouse gas (GHG) emissions.

**membrane bioreactor**

This is a type of activated sludge process to purify sewage and industrial wastewater. A filtration membrane is used to separate treated water from activated sludge.

**n-hexane extracts**

This is a generic term for nonvolatile substances extracted by n-hexane (volatile liquids that are widely used in solvents). N-hexane extracts are used as an index that shows the oil content (mg/L), etc. in water such as mineral oils and animal/vegetable oils and fats.

**PRTR Law (Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof)**

PRTR is an acronym for Pollutant Release and Transfer Register.

The PRTR Law (enforced in 1999 in Japan) aims to promote voluntary improvement of the management of chemical substances by business operators and to prevent any impediments to the preservation of the environment by taking measures for the confirmation of release amounts, etc. of specific chemical substances in the environment (PRTR) and measures for the provision of information concerning the properties and handling of specific chemical substances (SDS), etc.

**REACH Regulation**

REACH is an acronym for Registration, Evaluation, Authorization and Restriction of Chemicals. This regulation on the registration, evaluation, authorization, and restriction of chemical substances in Europe (enforced in 2007) aims to protect human health and the environment.

**RoHS Directive (directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment)**

RoHS is an acronym for Restriction of Hazardous Substances. This EU directive (enforced in 2006) prohibits the use of harmful substances contained in electrical and electronic equipment (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB), polybrominated diphenyl ether (PBDE)) in principle.

**Scopes 1, 2, and 3**

Scopes are components of greenhouse gas (GHG) emissions in the supply chain. The three different scopes help minimize overlapping calculations and identify target gases.

Scope 1: Direct GHG emissions by business operators

Scope 2: Indirect GHG emissions resulting from use of electricity, heat, and steam supplied by other entities

Scope 3: Indirect GHG emissions other than Scope 1 and Scope 2 (emissions by other entities in connection with business operators' activities)

**SDS**

An acronym for safety data sheet.

SDSs are documents which provide information about properties and the handling of chemical substances when transferring or supplying designated chemical substances and products containing these chemical substances to other business operators, in order to promote improvements in appropriate management of chemical substances by business operators.

**sound material-cycle society**

A society where consumption of natural resources is reduced and environmental impact is minimized.

A sound material-cycle society can be achieved by taking the following steps:

Phase 1: Reducing products, etc. that turn into waste

Phase 2: Reusing waste as resources as much as possible

Phase 3: Properly disposing of waste that cannot be used in any way

**SS**

An acronym for suspended solids.

SSs are insoluble suspended solids in water. These solids are called suspended matter in Japanese Industrial Standards (JIS), and suspended solids in environmental and wastewater standards. SSs pass through 2 mm sieves but remain on 1 µm filtration media.

**SVHC**

An acronym for substances of very high concern.

SVHCs may seriously affect human health and the environment.

**Type I labels**

Awarded by third-party organizations to products that contribute to environmental conservation based on certain standards.

Eco Mark and the Blue Angel are popularly known in Japan and Germany, respectively.

**Type II labels**

Self-declared by business operators regarding the environmental information of their products.

Brother Industries, Ltd. created the Brother Green Label.

**Type III labels**

Awarded to products whose environmental information is disclosed quantitatively based on life cycle assessment (LCA).

In Japan, EcoLeaf is managed and issued by the Japan Environmental Management Association for Industry.

**VOC**

An acronym for Volatile Organic Compounds.

VOC is the general term for organic compounds that are highly reactive at normal room temperature and atmospheric pressure. Typical substances include toluene, xylene, and ethyl acetate, etc. VOCs are understood to be a cause of photochemical smog due to photochemical reactions in the earth's atmosphere.

**WEEE Directive**

WEEE is an acronym for Waste Electrical and Electronic Equipment.

This EU directive (enforced in 2003) imposes obligations on member countries, sales business operators, manufacturers, etc. for waste electrical and electronic equipment in design, sorted collection, and recycling.