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GLOSSARY OF TERMS APPEARING IN THE PROTOCOL FOR THE
PROTECTION OF THE MEDITERRANEAN SEA AGAINST POLLUTION FROM LAND-BASED
SOURCES AND ITS ANNEXES I, II AND III

In collaboration with



WHO

INTRODUCTION

Many of the terms used in literature on marine pollution, including its prevention and control, come from a wide range of disciplines - particularly chemistry (analytical, inorganic, organic and physical), physics, oceanography, meteorology, biology and numerous branches of engineering and technology.

A considerable amount of such terms are used in the Protocol for the protection of the Mediterranean Sea against pollution from land-based sources, particularly in its technical Annexes. With the entry into force of this protocol, and the commencement of activities towards its progressive implementation, it has been considered useful to compile a glossary of terms that would both reflect, as far as possible, internationally recognized terminology and, at the same time, the requirements of the protocol itself. While not being in any way legally binding on any Contracting Party in the implementation of any national programmes and measures, the Glossary is designed to facilitate common interpretation of terms, including interdisciplinary communication, as far as possible.

Several sources have been drawn upon in the compilation of this first edition of the Glossary. Where any particular term has been drawn from one specific source, either literally, or in a form only slightly modified to the extent necessary to translate a general definition into one corresponding more accurately with the provisions of the protocol, such source has been identified. Entries without source identification are those where material from more than one source has had to be drawn on and merged.

This Glossary is issued in the hope that it will prove helpful to all persons concerned, professionally or otherwise, with the implementation of the protocol for the protection of the Mediterranean Sea against pollution from land-based sources. Any suggestions from users for modifications, corrections or additions in a future edition would be welcomed.

A

ACID COMPOUND (Annex II, A, 12) - A substance having the properties of an acid (defined as a substance which liberates hydrogen ions in solution). Many of these are acid salts (acids in which only a part of the acid hydrogen has been replaced by a metal) (17).

ADVERSE EFFECT ON OXYGEN CONTENT AND BALANCE (Annex II,A,11; Annex III,B,5) - A transient or permanent decrease in, or depletion of, the oxygen content, resulting for example in changes in the structure of the food web, impairment of the species composition of it, and/or reduction of the productivity of fish. It can also mean such changes as impair the quality of amenities (1).

ALKALINE COMPOUND (Annex II, A, 12) - A substance having the properties of an alkali (defined as a soluble hydroxide of a metal, which yields hydroxyl ions if dissolved in water) (17).

ANTIMONY (Annex II,A,1) - The chemical element antimony.

ARSENIC (Annex II,A,1) - The chemical element arsenic.

AUTHORIZATION FOR THE DISCHARGE OF WASTES (Annex III, Preamble) - An authorization issued by the competent national authorities (for the discharge of specific wastes into specific areas of the marine environment) in accordance with Article 6 of the Protocol (16).

B

BARIUM (Annex II,A,1) - The chemical element barium.

BATHING WATERS (Annex III,E,1(b)) - All marine waters in which either bathing is explicitly authorized by the competent authorities, or bathing is not prohibited and is traditionally practised by a large number of bathers (3).

BERYLLIUM (Annex II,A,1) - The chemical element beryllium.

BIOACCUMULATION (Annex I, Preamble) - The process by which the amount of a substance in a living organism (or its parts) increases with time (20).

BIOCHEMICAL CHANGES AND INTERACTION (Annex III,B,6) - Changes and interaction brought about by biochemical processes (11).

BIOCHEMICAL PROPERTIES OF A WASTE (Annex III,A,7) - Those properties of a waste which determine its reaction to biochemical processes and mechanisms (11).

BIOLOGICAL PERSISTENCE (Annex III,B,1) - The ability to resist death or ill-effects through biological processes and mechanisms (11).

BIOCHEMICAL TRANSFORMATION (Annex III,B,4) - A change in the chemical composition of a substance brought about by biochemical processes.

BIOCIDE (Annex II,A,2) - A chemical or biological substance designed for the purpose of killing, or otherwise controlling, a living organism.

BIOCIDE, DERIVATIVE OF (Annex II,A,2) - A substance derived by any process, whether synthetic or through breakdown, from a biocide.

BIODEGRADABLE (Annex II,A,6) - A substance which is degraded by biological processes.

BIOLOGICALLY HARMLESS (Annex I, footnote 1; Annex II,A,3) - incapable of causing injury to, or adverse effects on, living organism. Can also be considered synonymous with the term "non-toxic".

BORON (Annex II,A,1) - The chemical element boron.

C

CADMIUM (Annex I,A,5) - The chemical element cadmium (6).

CADMIUM COMPOUND (Annex I,A,5) - A chemical compound containing the element cadmium in any form. For the purposes of emission standards, calculations are normally made on the cadmium contained in any such compound (6).

CARCINOGEN (Annex I,A,8) - An agent-chemical, physical or biological - that can act on living tissue in such a way as to cause a malignancy (19).

CHARACTERISTICS, HYDROGRAPHIC (Annex III,C,1) - See "Hydrographic characteristics".

CHARACTERISTICS, METEOROLOGICAL (Annex III,C,1) - See "Meteorological characteristics".

CHEMICAL CHANGES AND INTERACTION (Annex III,B,6) - Changes and interaction brought about by chemical processes (11).

CHEMICAL PERSISTENCE (Annex III,B,1) - The ability to resist degradation by chemical processes and forces (11).

CHEMICAL PROPERTIES OF A WASTE (Annex III,A,7) - Those properties of a waste which determine its reaction to chemical processes and mechanisms (11).

CHROMIUM (Annex II,A,1) - The chemical element chromium.

COBALT (Annex II,A,1) - The chemical element cobalt.

- CONCENTRATION (Annex II,A,6) - The unit mass of a given substance occurring per unit volume or weight (11).
- CONSTITUENT (OF A WASTE) (Annex III,A,6) - A substance present in a waste (11).
- CONTINUOUS DISCHARGE (Annex III,A,5) - A discharge which is normally uninterrupted in time (11).
- COPPER (Annex II,A,1) - The chemical element copper.
- CRITICAL HABITAT (Annex III,E,2) - Any part of the marine environment likely to be seriously affected by pollution.
- CRUDE OIL (Annex II,A,4) - Chemically, an extremely complex mixture of hydrocarbons, together with organic compounds of sulphur, nitrogen and oxygen (14). For practical purposes, crude oils are normally interpreted as petroleum oils still in the state as obtained from the source, i.e. prior to any refining process.
- CYANIDES (Annex II,A,5) - Salts of hydrocyanic acid (17).

D

- DERIVATIVE OF BIOCIDES (Annex II,A,2) - See "Biocides, derivative of".
- DETERGENT (Annex III,A,6) - A cleaning agent. The term is usually restricted to substances used in solution for cleaning a solid surface by action other than simply dissolution, e.g. by using a surface-active agent (17).
- DILUTION, INITIAL (Annex III,C,3) - See "Initial dilution".
- DISCHARGE AREA (Annex III,C,5) - The area where a discharge is physically made (11).
- DISCHARGE, CONTINUOUS (Annex III,A,5) - See "Continuous discharge".
- DISCHARGE, INTERMITTENT (Annex III,A,5) - See "Intermittent discharge".
- DISCHARGE, POINT OF (Annex III,C,3) - See "point of discharge".
- DISCHARGE, SEASONALLY VARIABLE (Annex III,A,5) - See "Seasonally variable discharge".
- DISCHARGE, THERMAL (Annex II,A,9) - See "Thermal discharges".
- DISCHARGE OF WASTE, AUTHORIZATION FOR (Annex III, Preamble) - See "Authorizations for the discharge of wastes".

DISPERSION CHARACTERISTICS (Annex III,C,4) - The properties or characteristics determining dispersion (of an effluent). In this context, dispersion means the combined effect on a concentration level by motion generating a net water transport (advection) and motion generating no net water transport (diffusion) (11).

DISPOSAL, ON-LAND (Annex III,D(c)) - See "On-land disposal".

E

ECOSYSTEM (Annex III,E,2) - A community of interdependent organisms together with their environment with which they interact (9).

EDIBLE MARINE ORGANISMS (Annex III,E,1(a)) - Any marine organism (or species of seafood) consumed by man.

EFFLUENT (Article 7(b),(e); Annex III,D, Preamble) - Any fluid discharged from a given source into the external environment (19).

EFFLUENT, INDUSTRIAL (Annex III,D, preamble) - See "Industrial effluent".

EMISSION (Article 5.3) - A measure of the extent to which a given source discharges a pollutant, commonly expressed either as a rate (amount per unit time) or as the amount of pollutant per unit volume of gas or liquid discharged (19).

EMISSION STANDARD (Article 5.3) - The maximum acceptable release of a pollutant from a given source to a specified medium under specified circumstances (13).

ENDANGERED SPECIES (Annex III,E,2) - Any species of marine life which is in danger of extinction.

ENVIRONMENT, MARINE (Annex I,A:1,2,3,8,9; Annex II,A:3,10,11,13; Annex III: B,1, C,6) - See "Marine Environment".

EUTROPHICATION (Annex II,A,11) - The process of nutrient enrichment of water which leads to enhanced organic growth, but which if carried too far (hypertrophication) causes undesirable effects (8).

F

FAMILY OF SUBSTANCES (Annex I, preamble; Annex II, preamble) - Any number of substances whose composition and/or properties are related.

FLUORIDES (Annex II,A,5) - Salts of hydrofluoric acid (17).

G

GROUP OF SUBSTANCES (Annex I, preamble; Annex II, preamble) - Any number of substances whose composition and/or properties are not necessarily related.

H

HABITAT, CRITICAL (Annex III,E,2) - See "Critical habitat".

HORIZONTAL TRANSPORT (Annex III,C,4) - The motion of water and material along predominantly horizontal paths (11).

HYDROCARBONS (Annex II,A,4) - Organic compounds containing only the elements carbon and hydrogen (17).

HYDROGRAPHIC CHARACTERISTICS (Annex III,C,1) - Temperature and salinity distribution versus depth; currents (including tidal and wind-driven); depth (11).

I

INDUSTRIAL EFFLUENT (Annex III,D,Preamble) - A fluid discharged from a given source containing waste primarily originating from industrial activities (18).

INITIAL DILUTION (Annex III,C,3) - The dilution (of a discharged effluent) obtained during the period when the spreading of the injected material is mainly determined by its own momentum (11).

INTERMITTENT DISCHARGE (Annex III,A,5) - A discharge which is normally interrupted in time for appreciable time periods (11).

L

LEAD (Annex II,A,1) - The chemical element lead.

LOW-WASTE TECHNOLOGIES (Annex III,D(d)) - Industrial or other technological processes resulting in a relatively low amount of waste material generated.

LUBRICATING OILS (Annex I,A,6) - See "Used lubricating oils".

M

- MAJOR CONSTITUENT (OF A WASTE) (Annex III,A,6) - One of the more abundant of the substances present in a waste (11).
- MARINE ENVIRONMENT (Annex I,A:1,2,3,8,9; Annex II,A:3,10,11,13; Annex III: B,1, C,6) - The part of the environment being regularly influenced by salt water of more than 3-5 parts per thousand salinity (11).
- MATERIAL, SYNTHETIC (Annex I,A,7) - See "Synthetic material".
- MERCURY (Annex I,A,4) - The chemical element mercury (7).
- MERCURY COMPOUND (Annex I,A,4) - A chemical compound containing mercury in any form. For the purposes of emission standards, calculations are normally made on the mercury contained in any such compound (7).
- METEOROLOGICAL CHARACTERISTICS (Annex III,C,1) - Air temperatures; wind direction and speed; rainfall (11).
- METHODS OF ELIMINATING WASTES (Annex III,D(b)) - Any method for eliminating the generation of waste.
- METHODS OF RE-USE OF WASTE (Annex III,D(b)) - Any method of using waste, either totally or partially, for other purposes.
- METHODS OF WASTE REDUCTION (Annex III,D, preamble) - Any method of reducing the amount of waste, including the constituents thereof.
- MICRO-ORGANISM, PATHOGENIC (Annex II,A,8) - See "Pathogenic micro-organism".
- MIXING, VERTICAL (Annex III,C,4) - See "Vertical mixing".
- MOLYBDENUM (Annex II,A,1) - The chemical element molybdenum.
- MUTAGEN (Annex I,8) - A factor (often a substance) capable of inducing changes in the hereditary properties of an organism (12).

N

- NATURAL PROCESSES (Annex II, preamble) - Any physical, chemical or biological process occurring naturally in the environment (11).
- NICKEL (Annex II,A,1) - The chemical element nickel.
- NON-BIODEGRADABLE SUBSTANCE (Annex II,A,6) - A substance which is not degraded by biological processes.
- NON-TOXIC (Annex II,A,13) - Not possessing toxic properties. Can also be considered synonymous with "biologically harmless".
- NOXIOUS (Annex II, Preamble) - Capable of causing harm.

O

OIL, CRUDE (Annex II,A,4) - See "Crude oil".

OILS, LUBRICATING (Annex I,A,6) - See "Used lubricating oils".

ON-LAND DISPOSAL (Annex III,D(c)) - The disposal of wastes on land.

ORGANISM (Annex II,A,8; Annex III,E,1) - Anything capable of carrying on life-processes (9).

ORGANOHALOGEN COMPOUND (Annex I,A,1) - An organic chemical compound containing any of the elements bromine, chlorine, flourine or iodine in any form.

ORGANOPHOSPHORUS COMPOUND (Annex I,A,2) - An organic chemical compound containing the element phosphorus in any form.

ORGANOSILICON COMPOUND (Annex II,A,3) - Any organic chemical compound containing the element silicon in any form.

ORGANOTIN COMPOUND (Annex I,A,2) - An organic chemical compound containing the element tin in any form.

OXYGEN CONTENT AND BALANCE, ADVERSE EFFECT ON (Annex II,A,11; Annex III,B,5) - See "Adverse effect on oxygen content and balance".

P

PATHOGENIC MICRO-ORGANISM (Annex II,A,8) - A micro-organism, normally defined as a living organism which can only be seen with the aid of a microscope, that causes disease (19).

PERSISTENCE (Annex I, Preamble) - The attribute of a substance that describes the length of time that such substance remains in a particular environment before it is physically removed or chemically transformed (12).

PERSISTENCE, BIOLOGICAL (Annex III,B,1) - See "Biological persistence".

PERSISTENCE, CHEMICAL (Annex III,B,1) - See "Chemical persistence".

PERSISTENCE, PHYSICAL (Annex III,B,1) - See "Physical persistence".

PHYSICAL CHANGES AND INTERACTION (Annex III,B,6) - Changes and interaction brought about by physical processes (11).

PHYSICAL PERSISTENCE (Annex III,B,1) - The ability to resist degradation by physical processes and forces (11).

PHYSICAL PROPERTIES OF A WASTE (Annex III,A,7) - Those properties of a waste which determine its reaction to physical processes and forces (11).

POINT OF DISCHARGE (Annex III,C,3) - The exact point where discharge is effected. Also described as the actual point of injection of an effluent (11).

POLLUTION (Article 5.1, Article 6.1, Article 7.1(d), Article 8(a), Article (9) (text), Article 10.1, Article 11.1, 11.2, Article 12.1, Article 15.1; Annex II,A,preamble) - The introduction by man, directly or indirectly, of substances or energy into the marine environment resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of quality for use of sea-water and reduction of amenities (15).

R

RADIOACTIVE SUBSTANCES (Annex I,A,9) - Substances possessing the property of spontaneous disintegration due to the unstable nature of atomic nuclei, accompanied by the emission of either alpha- or beta-particles and/or gamma rays, or of emitting X radiation following orbital electron capture (i.e. a transformation in which the nucleus captures an orbital electron) or of undergoing spontaneous fission (i.e. nuclear fission which occurs without the addition of particles or energy to the nucleus) (17)(19).

RE-USE (Annex III,D(b)) - See "Methods of re-use of waste".

S

SEASONALLY-VARIABLE DISCHARGE (Annex III,A,5) - A discharge which varies on a seasonal time-scale or basis, or which varies with the seasons (11).

SELENIUM (Annex II,A,1) - The chemical element selenium.

SILVER (Annex II,A,1) - The chemical element silver.

SLUDGE (Annex III,A,3) - The accumulated solids separated from liquids such as water or wastewater during processing. Also, the precipitate resulting from the chemical treatment, coagulation or sedimentation of water or wastewater (18).

SLURRY (Annex III,A,3) - A mixture of solids and liquids in a fluid state (18).

SOLID WASTE (Annex III,A,3) - Any refuse or waste material, including semisolid sludges, produced from domestic, commercial or industrial premises or processes, including mining and agricultural operations and water treatment plants (18).

SOURCE OF POLLUTION (Article 6.1; Annex II,A, Preamble) - Any material or agent capable of causing pollution. Also, any location from where pollution originates.

STANDARD, EMISSION (Article 5.3) - See "Emission standard".

SUBSTANCE (Article 5.1, Article 6.1; Annex I,A: preamble,1,2,3,8,9;B; Annex II,A: preamble,3,6,10,11,13;B; Annex III: preamble,A,6) - Any physical, chemical, or biological material or agent.

SUBSTANCES, FAMILY OF (Annex I,preamble; Annex II,preamble) - See "Family of substances".

SUBSTANCES, GROUP OF (Annex I, preamble; Annex II, preamble) - See "Group of substances".

SURFACE-ACTIVE SUBSTANCE (Annex II,A,6) - Commonly known as a surface-active agent or surfactant. A substance introduced into a liquid in order to affect (usually to increase) its spreading, wetting and similar properties (i.e. properties which depend on its surface tension) (17).

SYNTHETIC MATERIAL (Annex I,A,7) - Any material or substance artificially prepared from the component elements or from simpler materials, not obtained directly from natural sources (17).

T

TELLURIUM (Annex II,A,1) - The chemical element tellurium.

TERATOGEN (Annex I,A,8) - A substance exposure to which during pregnancy results in developmental anomalies and/or abnormalities in the postnatal development of the offspring (12).

THALLIUM (Annex II,A,1) - The chemical element thallium.

THERMAL DISCHARGES (Annex II,A,9) - Discharges of water at above ambient level.

TIN (Annex II,A,1) - The chemical element tin.

TITANIUM (Annex II,A,1) - The chemical element titanium.

TOXICITY (Annex I, preamble; Annex III,B,2) - The capacity of a substance to cause injury to a living organism (13). A measure of incompatibility of a substance with life. This quantity is the reciprocal of the absolute value of dose (1/LD₅₀) or concentration (1/LC₅₀) (12).

TRANSFORMATION, BIOCHEMICAL (Annex III,B,4) - See "Biochemical transformation".

TRANSPORT, HORIZONTAL (Annex III,C,4) - See "Horizontal transport".

TREATMENT (Article 9; Annex III,D(a)) - The processing of a waste to alter its physical, chemical, or biological characteristics in order to facilitate disposal (18). Biological treatment is the treatment of water or sewage for the removal of organic matter with the assistance of living organisms (18).

U

URANIUM (Annex II,A,1) - The chemical element uranium.

USED LUBRICATING OILS (Annex I,A,6) - Any semiliquid or liquid used product totally or partially consisting of mineral or synthetic oil, including the oily residues from tanks, oil-water mixtures and emulsions (2). Does not normally include discharges of oil from oil production, refining and storage installations.

V

VANADIUM (Annex II,A,1) - The chemical element vanadium.

VERTICAL MIXING (Annex III,C,4) - The vertical exchange and transfer of material or energy through random motion not generating any net water transfer (11).

W

WASTE, BIOCHEMICAL PROPERTIES OF (Annex III,B,1) - See "Biochemical properties of a waste".

WASTE, CHEMICAL PROPERTIES OF (Annex III,B,1) - See "Chemical properties of a waste".

WASTE DISCHARGE, AUTHORIZATION FOR (Annex III, Preamble) - See "Authorization for the discharge of wastes".

WASTE ELIMINATION (Annex III,D(b)) - See "Methods of eliminating waste".

WASTE, PHYSICAL PROPERTIES OF (Annex III,B,1) - See "Physical properties of a waste".

WASTES (Annex III:Preamble; A1,2,3,7;D,preamble) - In the general sense, all discarded materials and substances in any form. Includes industrial wastes - materials that are not prime products, arising mainly from the manufacturing industries as by-products of manufacturing processes; sewage - the water supply of a community after it has been fouled by various uses, and which may be a combination of the liquid or water-carried domestic, municipal and industrial wastes, together with such ground-water, surface water and storm-water as may be present. Sewage that has not been subjected to any treatment process is known as Crude sewage (18).

WASTE RE-USE (Annex III,D,(b)) - See "Methods of re-use of waste".

Z

ZINC (Annex II,A,1) - The chemical element zinc.

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