

SLOVENSKI STANDARD oSIST prEN 17173:2018

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Evropski slovar CBRNE

European CBRNE glossary

Europäisches CBRNE-Glossar

Glossaire CBRNE européen

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(Vocabularies)

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izdelki goods

13.310 Varstvo pred kriminalom Protection against crime

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Glossaire CBRNE européen

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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Cont	tents	Page
Europ	ean foreword	3
1	Scope	4
2	Normative references	4
3	Terms and definitions	4
Annex	x A (informative) Control areas and zones	101
Bibliography		102

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European foreword

This document (prEN 17173:2017) has been prepared by Technical Committee CEN/TC 391 "Societal and Citizen Security", the secretariat of which is held by NEN.

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1 Scope

This European Standard contains terms and definitions applications to CBRNE.

Common understanding and communication is important in the implementation of an effective CBRNE response and this communication will be most effective if there is common understanding of the terms used. Many of the terms and definitions listed here have been widely used for many years, while others are the result of cross-cutting experience of areas of CBRNE. The gradual evolution of our understanding of CBRNE and response measures means that CBRNE terminology will continue to develop.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

A1 and A2

categories to determine the type of packaging for transport of radioactive material. The categories are corresponding to the maximum activity, expressed in Becquerel

Note 1 to entry: A1 refers to a non-dispersible solid radioactive material or a sealed capsule containing radioactive material.

Note 2 to entry: A2 refers to the normal form of radioactive material.

Note 3 to entry: The maximum Becquerel values for A1 or A2 differ for various nuclides.

Note 4 to entry: See: ADR.

3.2

abandoned chemical weapons

chemical weapons, including old chemical weapons, abandoned by a state after 1 January 1925 on the territory of another state without the consent of the latter

3.3

absolute zero

lowest possible temperature

Note 1 to entry: At this temperature the atoms of a substance stop transmitting thermal energy - i.e. they are completely stationary.

Note 2 to entry: By international agreement, absolute zero is defined precisely as 0 K on the Kelvin scale, which is an absolute temperature scale, and -273,15 °C on the Celsius scale.

3.4

absorbance

measure of the amount of light absorbed by a sample

Note 1 to entry: This is an important value for most applications because of the existence of a linear relationship between absorbance and concentration.

3.5

absorbed dose

amount of energy deposited by ionising radiation in a unit mass of tissue, expressed in units of Joules per kilogram (I/kg), which is given the special name of "gray" (Gy)

3.6

absorbed radiation dose

measure of the energy transferred by radiation into matter. Its unit is the gray (symbol Gy), where 1 Gy = 1 Joule per kilogram of matter

3.7

accident

unplanned and unintended event that interrupts an activity and sometimes causes injury or damage, including operating errors, equipment failures and other mishaps, the consequences or potential consequences of which are not negligible from the point of view of protection or safety

3.8

Acetyl Cholinesterase, AChE

nervous systems enzyme (molecule produced by a cell to induce a specific biochemical reaction)

Note 1 to entry: AChE breaks down acetylcholine, the transmitter substance at the 'cholinergic' synapses (nerve 'couplings' that permit a nerve cell to pass a signal to another cell).

Note 2 to entry: This is essential for the normal functioning of these synapses, as it enables short impulses and

Acetylcholinesterase Inhibitor, AchEll Hards Hell Chemical that inhibits acetylcholinesterase amount of acetylcholinesterase Inhibits acetylcholinesterase I chemical that inhibits acetylcholinesterase in breaking down acetylcholine, thereby increasing the amount of acetylcholine and causing over-stimulation at the cholinergic synapses

Note 1 to entry: AChEIs are categorized as reversible, quasi-irreversible (or pseudo-irreversible) and irreversible inhibitors, the first two groups being the most relevant.

3.10

active decontamination

employment of chemical, biological or mechanical processes to remove or neutralize chemical, biological or radioactive materials

Note 1 to entry: Active decontamination is conducted when contamination will adversely affect the operational capabilities.

Note 2 to entry: There are three levels of active decontamination employed by operational units: immediate, operational and thorough decontamination.

3.11

Acute Exposure Guideline Level, AEGL

toxicologically substantiated maximum exposure level intended for the protection of the general public against a once-in-a-lifetime exposure

Note 1 to entry: It represents the airborne concentration of a substance at or above which it is predicted that the general population could experience:

notable discomfort (AEGL-1); 1)

- 2) irreversible or other serious, long-lasting effects or an impaired ability to escape (AEGL-2); or
- 3) life-threatening health effects or death (AEGL-3).

Note 2 to entry: See: Exposure limits for chemicals.

3.12

Acute Hazard Area

potential area where the radiation levels are expected to be sufficiently high to indicate that active measures should be adopted to reduce exposure

Note 1 to entry: Unprotected personnel who remains in this area for a significant period can be anticipated to receive acute hazard doses which are high enough to cause some short-term incapacitation, but full recovery is expected.

Note 2 to entry: Operations within this area should be restricted to mission critical tasks only.

Note 3 to entry: See: Acute hazard dose.

3.13

acute hazard dose

potential receive doses, in the Acute Hazard Area, exceeding 75 cGy (but less than 125 cGy) within 24 hours, which is high enough to cause some short-term incapacitation, but full recovery is expected

Note 1 to entry: Operations within this area should be restricted to mission critical tasks only.

Note 2 to entry: See: Acute Hazard Area.

3.14

acute infection

rapid onset of disease with a relatively short duration of symptoms and resolution within days (see in comparison: chronic infection)

Note 1 to entry: Acute viral infections are typically observed with pathogens such as influenza virus and rhinovirus, but also with very severe infections like Ebola haemorrhagic fever.

Note 2 to entry: It is important to distinguish viral from bacterial infections, because acute bacterial infections can be treated with antibiotics, while (some) acute viral infections are treated with antiviral drugs.

3.15

activity

number of disintegrations of radioactive nuclei per second

Note 1 to entry: The unit is the Becquerel, symbol Bq.

3.16

European Agreement concerning the International Carriage of Dangerous Goods by Road, ADR requirements for the trans boundary road transport of dangerous goods

Note 1 to entry: See: Dangerous goods.

3.17

ADR classes

classes of dangerous goods

dangerous goods nine level classification system which based on materials hazardous properties

EXAMPLE Explosives, toxic and infectious substances or radioactive material.

3.18

ADR label

regulations for the transport of dangerous goods (ADR) specified hazard symbol labels dangerous goods

Note 1 to entry: A label is diamond-shaped (i.e. squares set at an angle of 45°), in distinctive colours, and contain a hazard symbol. A label may also contain a class number, an UN number, or a word or phrase describing the hazard (e.g. FLAMMABLE).

3.19

aerogenic infection

airborne infection

infection with viruses, bacteria or fungi (or their spores) by inhalation of the organisms

Note 1 to entry: It can be distinguished between droplets (organisms that are suspended in the air on water droplets, > $100 \, \mu m$) or aerosols (organisms suspended on nuclei of droplets, dust particles or other carrier substances < $10 \, \mu m$).

3.20

aerosol

mixture of small solid or liquid particles dispersed in air or another gas

Note 1 to entry: The solid particle mix is also referred to as smoke, and the liquid particle mix as fog or mist.

3.21

Agent Orange

defoliants

Note 1 to entry: It was used during the Vietnam War (1961–1971).

3.22

agroterrorism

deliberate malicious introduction of an animal or plant disease into the food chain with the goal of generating fear, causing economic losses and impaired food security by disruption or damage of a country's agriculture, and/or undermining social stability

3.23

airbag

passive restraint system used in motor vehicles consisting of a flexible bag that is rapidly inflated by gas (generated by the combustion of a pyrotechnic mixture) during an automobile collision

3.24

alarm

indication from any source (signal or message from a person or device) that the existence of an emergency or a chemical, biological, radiological and nuclear attack or release other than attack may have occurred and required actions to response

Note 1 to entry: See: Instrumental alarm, warning.

3.25

alarm level

lowest concentration of sensor can be detected with confidence

Note 1 to entry: Alarm levels can be set by calibration and may be adjustment.

Note 2 to entry: Alarm levels typically are descripted low level, medium level and high level.

Note 3 to entry: Alarm levels are referred to as the detection limit or sensitivity.

3.26

alert

warning information of a real or threatened danger tricked by instrument, information or individual to forewarn to prepare for action, response or protection

3.27

Alpha radiation

type of radiation emitted during radioactive decay, which is composed of two neutrons and two protons

Note 1 to entry: A few centimetres of air or a thin layer of matter shields alpha radiation so that there are generally no concerns about external exposure because the particles normally do not pass through skin.

Note 2 to entry: It is very dangerous for internal exposure (ingestion or inhalation in the body), so its presence in the environment must be assessed with caution.

3.28

ambient dose equivalent

operational quantity used for assessing effective dose in area monitoring

3.29

ambient monitoring

methods for identifying hazardous substances and determining their amount in air, dust, soil and water or materials in order to test human or animal exposure

3.30

ambient radiation dose

energy from ionising radiation absorbed per unit mass

Note 1 to entry: Expressed in the unit gray (Gy).

3.31

ammunition

generic term related mainly to articles of military application consisting of all kind of bombs, grenades, rockets, mines, projectiles and other similar devices

Note 1 to entry: For civilian purposes ammunition is used for small firearms.

3.32

analysis time

time that a detection instrument needs to detect and identify a threat substance

Note 1 to entry: The analysis time is an important performance indicator for a detection instrument when detection is to be performed in a time sensitive scenario.

3.33

analytical technique

fundamental scientific phenomenon that has proved useful for providing information on the composition of substances

3.34

analytic method

specific application of analytic technique to solve an analytic problem

3.35

Annual Limit of Intake, ALI

corresponds to the quantity or radioactivity of a specific radionuclide, which, if inhaled or ingested by a worker or member of the general public, corresponds to the corresponding annual dose limit

3.36

antidote

drug (with a known action mechanism) given to a patient to counteract the toxic effects of a poison by modifying its toxicokinetics or toxicodynamics, and whose administration reliably produces a significant benefit

EXAMPLE Atropine and oximes as antidotes for nerve agents; physostigmin as an antidote for atropine or BZ; opioid antagonists (naloxone or naltrexone) for fentanyl and other opioids; British anti-Lewisite (BAL, dimercaprol) for Lewisite; and hydroxycobalamin (vitamin B12a, Cyanokit®) for cyanides.

3.37

antitoxin

antibodies derived from plants, animals or microorganisms that counteract a specific toxin

Note 1 to entry: OR: An antibody with the ability to neutralize a specific toxin.

3.38

As Low As Reasonably Achievable, ALARA

risk management principle that mandates the minimum exposure of personnel to chemical, biological, radiological and nuclear hazards, subject only to the overriding demands of the operational mission

3.39

assembly point

area at the outer cordon for people assembling and awaiting evacuation from the scene

Note 1 to entry: See: Assistance centre, Annex A.

3.40

assessment

process and the result of analysing systematically and evaluating the hazards associated with agents, sources and practices, and associated protection and safety measures

3.41

assistance centre

any facility (whether physical or virtual) set up during response to and recovery from an emergency to provide a range of assistance to different categories of people affected by the emergency

3.42

asymptomatic carrier

healthy carrier

contracted an infectious agent without showing any apparent signs of the disease

Note to entry 1: Carriers are capable of transmitting the agent to others. Carriers can be persons, animals or other organisms.

3.43

atom

basic component of matter containing protons, neutrons and electrons

Note 1 to entry: The massive protons and neutrons are situated in the centre of the atom, the nucleus. The much less massive electrons surround the nucleus. The number of electrons is equal to the number of protons.

3.44

atomic energy

energy produced by atoms that is released in nuclear reactions, more specifically in the fission or fusion of the nucleus

Note 1 to entry: See: Nuclear energy.

3.45

atomic number

number of protons in the nucleus of an atom, which is equal to the number of electrons surrounding it

Note to entry 1: Chemical elements are made up of atoms and all the atoms of a particular element have the same atomic number.

3.46

Atomic Absorption Spectrometry, AAS

spectrometric analytical method used to determine traces and major concentrations of individual chemical elements

Note 1 to entry: The method is based on the absorption of radiation by free atoms in the gaseous state.

3.47

atropine

antidote, which is used in combination with oximes, e.g. obidoxime, to counteract poisoning from organophosphates

Note 1 to entry: It is an antagonist to acetylcholine and counteracts the high amount of the molecule at the 'cholinergic' receptor sites, which is why atropine is called an 'anticholinergic'.

Note 2 to entry: See: Nerve agents.

3.48

authorised carrier

person or entity which arranges the transport of radioactive material including special fissile material on its own behalf or on behalf of others, in their name or on its own, even if using the means of others responsible for the staff, vehicles and structures which are made available

Note 1 to entry: In some countries, carriers previously approved by the competent authorities must only carry out transportation by land, sea or air of special fissionable material in any quantity of radioactive material.

Note 2 to entry: See: Carrier.

3.49

autoignition temperature

lowest temperature at which substances will spontaneously ignite in a normal atmosphere without an external source of ignition, such as a flame or spark

Note 1 to entry: This temperature falls as the pressure or concentration of oxygen increases.

3.50

aviation security

combination of measures and human and material resources intended to safeguard civil aviation against acts of unlawful interference that jeopardize the security of civil aviation

3.51

avirulent

bacterium, virus, fungus or parasite, which is able to infect an animal and/or human without inducing a clinical disease

Note 1 to entry: Infection can be verified by determining the immune response.

3.52

background radiation

continuously present radiation in the environment and is emitted from a variety of natural and artificial sources

Note 1 to entry: See: Natural background radiation.

3.53

bacterium

prokaryotic, in most cases a single-cell, self-reproducing microorganism of few micrometres in size, lacking a true nucleus and organelles

Note 1 to entry: It is surrounded by a cytoplasmic membrane and in most cases additionally by a cell wall.

Note 2 to entry: Some of bacterium are capable to induce disease in humans, animals or plants.

3.54

Becquerel

unit of radioactivity, symbol Bq, which corresponds to one nucleus disintegration per second

Note 1 to entry: In the past, the unit curie was widely used, corresponding to 37 billion disintegrations per second.

3.55

beta radiation

emitted by a nucleus during radioactive decay

Note 1 to entry: Beta particles have a charge: those that are negatively charged are electrons and those that are positively charged are called positrons.

Note 2 to entry: Most beta particles can be blocked by a few millimetres of plastic, aluminium or glass.

Note 3 to entry: See: Natural background radiation.

3.56

binary device

binary or multicomponent device as a chemical weapon or system containing relatively non-toxic initial substances (precursors or key components

Note 1 to entry: When the ammunition (bomb, projectile, grenade, etc.) is fired, the initial substances are mixed and allowed to react, producing a chemical warfare agent.