

## SECTION A — HUMAN NECESSITIES

## A62 LIFE-SAVING; FIRE-FIGHTING

## A62D CHEMICAL MEANS FOR EXTINGUISHING FIRES; PROCESSES FOR MAKING HARMFUL CHEMICAL SUBSTANCES HARMLESS, OR LESS HARMFUL, BY EFFECTING A CHEMICAL CHANGE; COMPOSITION OF MATERIALS FOR COVERINGS OR CLOTHING FOR PROTECTING AGAINST HARMFUL CHEMICAL AGENTS; COMPOSITION OF MATERIALS FOR TRANSPARENT PARTS OF GAS-MASKS, RESPIRATORS, BREATHING BAGS OR HELMETS; COMPOSITION OF CHEMICAL MATERIALS FOR USE IN BREATHING APPARATUS

## 1/00 Fire-extinguishing compositions; Use of chemical substances in extinguishing fires

1/02 • containing or yielding a gas phase, e.g. foams (A62D 1/06, A62D 1/08 take precedence) [3]

1/04 • • characterised by the foam stabiliser [3]

1/06 • containing gas-producing, chemically-reactive components [3]

1/08 • containing volatile or gas-charged liquids [3]

3/00 Processes for making harmful chemical substances harmless, or less harmful, by effecting a chemical change in the substances (devices for rendering harmful chemical agents harmless A62B 29/00; consuming noxious gases by combustion F23G 7/06) [1, 2007.01]

Note(s)

1. This group does not cover :
  - chemical or physico-chemical type processes where eradicating or diminishing the dangerousness of harmful chemical substances produces useful products, e.g. cement. These types of processes are covered by the appropriate subclass for making the specific product. However, in situations where processes for making products include a subset of process steps with eradicating or diminishing the dangerousness of a harmful chemical substance as its fundamental goal, and this subset is in itself novel and unobvious, this subset is covered by group A62D 3/00.
2. In this group the following term is used with the meaning indicated:
  - "harmful chemical substances" are chemical waste substances which are too hazardous or toxic to be discarded in an ordinary municipal landfill.
3. In this group, at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place.
4. In this group, it is desirable to add the indexing code(s) of group A62D 101/00 relating to the nature of the harmful chemical substance.

3/02 • by biological methods, i.e. processes using enzymes or micro-organisms [2007.01]

3/10 • by subjecting to electric or wave energy or particle or ionizing radiation [2007.01]

3/11 • • Electrochemical processes, e.g. electrodialysis [2007.01]

3/115 • • • Electrolytic degradation or conversion [2007.01]

3/13 • • to sonic energy [2007.01]

3/15 • • to particle radiation, e.g. electron beam radiation [2007.01]

3/17 • • to electromagnetic radiation, e.g. emitted by a laser [2007.01]

3/172 • • • Gamma rays, i.e. radiation having a wavelength of about 0.003 to 0.03 nm [2007.01]

3/174 • • • X-rays, i.e. radiation having a wavelength of about 0.03 to 3 nm [2007.01]

3/176 • • • Ultraviolet radiation, i.e. radiation having a wavelength of about 3 to 400 nm [2007.01]

3/178 • • • Microwave radiation, i.e. radiation having a wavelength of about 0.3 to 30 cm [2007.01]

3/19 • • to plasma [2007.01]

3/20 • by hydrolysis or destructive steam gasification, e.g. using water and heat to effect chemical change [2007.01]

3/30 • by reacting with chemical agents [2007.01]

3/32 • • by treatment in molten chemical reagent, e.g. salts or metals [2007.01]

3/33 • • by chemically fixing the harmful substance, e.g. by chelation or complexation [2007.01]

3/34 • • Dehalogenation using reactive chemical agents able to degrade [2007.01]

3/35 • • by hydrolysis [2007.01]

3/36 • • Detoxification by using acid or alkaline reagents [2007.01]

3/37 • • by reduction, e.g. hydrogenation [2007.01]

3/38 • • by oxidation; by combustion [2007.01]

3/40 • by heating to effect chemical change, e.g. by pyrolysis [2007.01]

5/00 Composition of materials for coverings or clothing affording protection against harmful chemical agents

7/00 Composition of materials for transparent parts of gas-masks, respirators, breathing bags, or helmets

7/02 • Clear-view sheets which prevent the formation of water drops or ice

9/00 Composition of chemical substances for use in breathing apparatus

**Indexing scheme associated with group A62D 3/00 relating to the nature of the harmful chemical substances [2007.01]**

**101/00 Harmful chemical substances made harmless, or less harmful, by effecting chemical change [2007.01]**

**Note(s) [2007.01]**

When indexing a substance in groups A62D 101/02-A62D 101/08, indexing according to its chemical structure may also be made in one or more of groups A62D 101/20-A62D 101/40.

- 101/02 • Chemical warfare substances, e.g. cholinesterase inhibitors [2007.01]
- 101/04 • Pesticides, e.g. insecticides, herbicides, fungicides or nematocides [2007.01]
- 101/06 • Explosives, propellants or pyrotechnics, e.g. rocket fuel or napalm [2007.01]
- 101/08 • Toxic combustion residues, e.g. toxic substances contained in fly ash from waste incineration [2007.01]

101/20 • Organic substances [2007.01]

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- 101/22 • • containing halogen [2007.01]
- 101/24 • • containing heavy metals [2007.01]
- 101/26 • • containing nitrogen or phosphorus [2007.01]
- 101/28 • • containing oxygen, sulfur, selenium or tellurium, i.e. chalcogen [2007.01]
- 101/40 • Inorganic substances [2007.01]
- 101/41 • • Inorganic fibers, e.g. asbestos [2007.01]
- 101/43 • • containing heavy metals, in the bonded or free state [2007.01]
- 101/45 • • containing nitrogen or phosphorus [2007.01]
- 101/47 • • containing oxygen, sulfur, selenium or tellurium, i.e. chalcogen [2007.01]
- 101/49 • • containing halogen [2007.01]