

Title: Guideline to developing & selecting materials

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Mission & Purpose

Intel Corporation strives to use materials and produce products in a safe and environmentally responsible manner. This guide helps to identify materials that are currently regulated or subject to potential future regulations. It is the expectation that Intel's supply chain work in partnership to ensure that the most benign, technologically feasible materials are being selected. Please note this is not a comprehensive list and just a guideline

General Guidelines on Materials

Not Allowed

The following Glycol Ether use prohibited at Intel : Industry Voluntary phase-out

109-86-4 - ethylene glycol methyl ether
110-49-6 - ethylene glycol monomethyl ether acetate
110-80-5 - 2-ethoxyethanol
111-15-9 - ethylene glycol monoethyl ether acetate
111-96-6 - bis (2-methoxy ethyl) ether

Long Chain Perfluorinated materials - (PFOS & PFOA)

UN Stockholm Convention listed POPs (Persistent Organic Pollutants)

Class I Ozone Depleting Substances (ODS) - Will not be used in any Intel application, including manufacturing processes, any refrigeration or fire suppression equipment. Class II ODS may not be used in the manufacturing process, or in refrigerant or coolant loops attached to new individual pieces of manufacturing equipment, due to the ban on such uses in the European Union (EU). Class II ODS may still be used as refrigerants in large facility chiller systems not located in the EU.

Discouraged

The use of materials with the following classifications are Strongly Discouraged from Use at Intel:

United Nations Global Harmonization Standard toxicological classifications:

GHS classified Carcinogens - Category 1 & 2
GHS classified Reproductive toxicants - Category 1 & 2
GHS classified Acute Toxicity – Category 1 & 2
GHS classified Mutagens - Category 1 & 2

Note - Untested Mixtures containing substances above GHS Cutoff/threshold

REACH Regulation (EC) No 1907/2006 Annex XIV (Authorisation) and REACH Annex XVII (Restriction) listed substances

Arsine - use in manufacturing is limited to Safe Delivery Systems that meet the definition of Sub-atmospheric Gas Sources (SAGS) per NFPA 318, other delivery systems or use of pressurized arsine requires review by Intel.

Articles

Link

Please refer to Intel's Product Content Specification # 18-1201 for more specific details on regulated substances on [Supplier.intel.com](https://supplier.intel.com/static/environment/product-compliance/index.htm)

Definitions

Article - A manufactured item other than a fluid or particle (e.g. silicon wafers, process tools, etc.): (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical, and does not pose a physical hazard or health risk to employees.

Chemical - Any element, chemical compound, biological material, nanoparticle, or mixture of elements and/or compounds (e.g. photoresists, solvents, metal sputter targets, adsorbent, epoxies, fluxes, etc.).