UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of Oceanic and Atmospheric Research
Global Monitoring Laboratory
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ABO Banned Construction Materials List:

(Current as of 2022)

• Chlorofluorocarbons (CFCs)

Used as refrigerants, solvents, foam blowing agents, spray cans, and heat exchange medium (no longer manufactured in the U.S.)

Molecule:	Name:	Commonly known as:
CCl_3F	trichlorofluoromethane	CFC-11, R-11, Freon-11
CCl_2F_2	dichlorodifluoromethane	CFC-12, R-12, Freon-12
$CClF_3$	chlorotrifluoromethane	CFC-13, R-13, Freon-13
CCl_2FCClF_2	trichlorotrifluoroethane	CFC-113, R-113, Freon-113

• Hydrochlorofluorocarbons (HCFCs)

Used as refrigerants, solvents, foam blowing agents, spray cans, and heat exchange medium

Molecule:	Name:	Commonly known as:
$CHCl_2F$	dichlorofluoromethane	HCFC-21, R-21
$CHClF_2$	chlorodifluoromethane	HCFC-22, R-22
$C_2HCl_2F_3$	dichlorotrifluoroethane	HCFC-123
CF_3CHClF	chlorotetrafluoroethane	HCFC-124, R-124
CCl_2FCH_3	dichlorofluoroethane	HCFC-141b, R-141b
$CClF_2CH_3$	chlorodifluoroethane	HCFC-142b, R-142b
$C_2H_2ClF_3$	chlorotrifluoroethane	HCFC-133a

• Hydrofluorocarbons (HFCs)

Used as refrigerants, foam blowing agents, and aerosol propellants (in spray cans)

Molecule:	Name:	Commonly known as:
CF_3CH_2F	tetrafluoroethane	HFC-134a, R-134a
CH_3CHF_2	difluoroethane	HFC-152a, R-152a
CHF_3	trifluoromethane	HFC-23, R-23, Freon-23, fluoroform
$C_2H_3F_3$	trifluoroethane	HFC-143a, R-143a
CF_3CHF_2	pentafluoroethane	HFC-125, R-125, Freon-125
$CF_3CH_2CF_2CH_3$	pentafluorobutane	HFC-365mfc, R-365mfc
$C_3H_2F_6$	hexafluoropropane	HFC-236fa
$C_3H_3F_5$	1,1,1,3,3-pentafluoropropane	HFC-245fa
C_3HF_7	heptafluoropropane	HFC-227ea, R-227ea
CH_2F_2	difluoromethane	HFC-32, R-32
CF_3CFCH_2	2,3,3,3-tetrafluoropropene	HFO-1234yf, R-1234yf, YF
CF_3CHCHF	1,3,3,3-tetrafluoro-1-propene	HFO-1234ze, R-1234ze

* Or any refrigerant blends containing these chemicals above, such as:
R-404a, R-507a, R-410a, R-407c.

- **Halons**

Used in fire suppression and extinguishing systems

Molecule:	Name:	Commonly known as:
$CBrClF_2$	bromochlorodifluoromethane	halon-1211
$CBrF_3$	bromotrifluormethane	halon-1301
$C_2Br_2F_4$	dibromotetrafluoroethane	halon-2402

- **Chlorocarbons**

Used as solvents, cleaning agents, degreasing agents, and other less common applications

Molecule:	Name:	Commonly known as:
CH_3Cl	chloromethane	methyl chloride
CH_2Cl_2	dichloromethane	methylene chloride
$CHCl_3$	trichloromethane	chloroform
CCl_4	tetrachloromethane	carbon tetrachloride
CH_3CCl_3	trichloroethane	methyl chloroform
$C_2H_4Cl_2$	1,2-dichloroethane	dichloroethane
C_2Cl_4	tetrachloroethene	perchloroethene (PCE)
C_2HCl_4	trichloroethene	TCE

- **Bromocarbons**

Molecule:	Name:	Commonly known as:
CH_3Br	bromomethane	methyl bromide
CH_2Br_2	dibromomethane	methylene bromide
$CHBr_3$	tribromomethane	bromoform
CH_2BrCl	bromochloroethane	

- **Iodocarbons**

Molecule:	Name:	Commonly known as:
CH_3I	iodomethane	methyl iodide

- **Others**

Molecule:	Name:	Commonly known as:
N_2O	nitrous oxide	(common oxidizer)
SF_6	sulfur hexafluoride	(used in electric transformers)
COS	carbonyl sulfide	carbonyl sulfide
C_6H_6	benzene	benzene
$C_3H_2F_4$	tetrafluoroprop-1-ene	HFO-1234yf
SO_2F_2	sulfuryl fluoride	Vikane, Zythor, ProFume
NF3	nitrogen trifluoride	nitrogen fluoride, trifluoramine
C2F6	hexafluoro ethane	carbon hexafluoride
CF4	carbon tetrafluoride	tetrafluoromethane

Typical construction applications for these banned compounds include: "blue-board" and "pink-board" insulation sheets (most contain HCFCs), blown foam insulation containing prohibited chemicals as ingredients and/or propellants, spray-can dusters, even ones that say "ozone-friendly", and solvents/sealants/adhesives using prohibited chemicals (examples include glues, caulks, paints, paint thinner, liquid nail, etc).