

Chemical Facility Anti-Terrorism Standards (CFATS) Program Quick Reference Guide

Introduction

The U.S. Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) are comprehensive risk-based security regulations intended to prevent the intentional misuse of certain chemicals by sabotage, theft, diversion, or direct attack.

CFATS requires a facility that possesses (or intend to possess) “chemicals of interest” (COI) above the established threshold quantity to report that information to DHS. Many COI outlined in CFATS are used regularly in university research and other facilities. As such, it is important to understand how this law may affect different areas of work.

Chemicals of Interest--Laboratories

Common *low threshold* COI in a *laboratory* setting includes the following:

Chemical of Interest (COI)	Chemical Abstract Service (CAS) #	Maximum Quantities by Building
Aluminum Powder	7429-90-5	99 pounds
Ammonium Nitrate	6484-52-2	399 pounds
Hydrogen Sulfide (23.73%)	7783-06-4	44 pounds
Magnesium Powder	7439-95-4	99 pounds
Nitric Acid (68%)	7697-37-2	399 pounds
Nitric Oxide	10102-43-9	14 pounds
Nitrobenzene	98-95-3	99 pounds
Phosphorus oxychloride (80%)	10025-87-3	215 pounds
Potassium Nitrate	7757-79-1	399 pounds
Triethanolamine (80%)	102-71-6	215 pounds
Triethanolamine HCL (80%)	637-39-8	215 pounds

Chemicals of Interest--Shops

Common *low threshold* COI in shop a *shop setting* includes the following:

Chemical of Interest (COI)	Chemical Abstract Service (CAS) #	Maximum Quantities by Building
Ammonium nitrate, [with more than 0.2 percent combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance]	6484-52-2	399 pounds
Ammonium nitrate, solid [nitrogen concentration of 23% nitrogen or greater]	6484-52-2	1,999 pounds
Anyhydrous Ammonia	7664-41-7	9,999 pounds
Chlorine Gas (9.77%)	7782-50-5	499 pounds
Potassium Nitrate	7757-79-1	399 pounds
Propane	74-98-6	Tanks of 10,000 (lbs.) or more--or total of 60,000 pounds

Low Threshold Chemicals of Interest

Any COI in a cumulative total of more than **99 grams per building**. Since these materials are such low quantity, please contact the CFATS Manager before possessing **ANY** quantity of these materials.

Chemical of Interest (COI)	Chemical Abstract Service (CAS) #
1,4-Bis (2-chloroethylthio) n-butane	142868-93-7
Bis(2chloroethylthio)methane	63869-13-6
Bis(2chloroethylthiomethyl)ether	63918-90-1
1,5-Bis(2-chloroethylthio)n-pentane	142868-94-8
1,3-Bis(2-chloroethylthio)n-propane	63905-10-2
2-Chloroethylchloromethylsulfide	2625-76-5
Chlorosarin	1445-76-7
Chlorosoman	7040-57-5
DF (Methyl phosphonyl difluoride)	676-99-3
Ethyl phosphonyl difluoride	753-98-0
HN1 (nitrogen mustard-1)	538-07-8
HN2 (nitrogen mustard-2)	51-75-2
HN3 (nitrogen mustard-3)	555-77-1
Isopropylphosphonyl difluoride	677-42-9
Lewisite 1	541-25-3
Lewisite 2	40334-69-8
Lewisite 3	40334-70-1
Sulfur mustard (Mustard gas (H))	505-60-2
O-Mustard (T)	63918-89-8
Propylphosphonyl difluoride	690-14-2
QL	57856-11-8
Sarin	107-44-8
Sesquimustard	3563-36-8
Soman	96-64-0
Tabun	77-81-6
VX	50782-69-9

Low Threshold Chemicals of Interest (Gases)

Contact Environmental Health and Safety (EHS) prior to ordering and receiving any of the gases in the following table in **ANY** quantity equal to or greater than the concentration indicated in the table.

Arsine (0.67%) CAS 7784-42-1	Boron Trifluoride (26.87%) CAS 7637-07-2	Carbonyl Fluoride (12.0%) CAS 353-50-4
Chlorine Pentafluoride (4.07%) CAS 13637-63-3	Chlorine Trifluoride (9.97%) CAS 7790-91-2	Cyanogen (11.67%) CAS 460-19-5
Cyanogen Chloride (2.67%) CAS 506-77-4	Diborane (2.67%) CAS 19287-45-7	Dichlorosilane (10.47%) CAS 4109-96-0
Dinitrogen Tetroxide (3.8%) CAS 10544-72-6	Fluorine (6.17%) CAS 7782-41-4	Germane (20.73%) CAS 7782-65-2
Germanium Tetrafluoride (2.11%) CAS 7783-58-6	Hexafluoroacetone (15.67%) CAS 684-16-2	Hydrogen Cyanide (4.67%) CAS 74-90-8
Hydrogen Fluoride, Anhydrous (42.53%) CAS 7664-39-3	Hydrogen Selenide (0.07%) CAS 7783-07-5	Hydrogen Sulfide (23.73%) CAS 7783-06-4
Methylchlorosilane (20%) CAS 993-00-0	Nitric Oxide (3.83%) CAS 10102-43-9	Oxygen Difluoride (0.09%) CAS 7783-41-7
Perchloryl Fluoride (25.67%) CAS 7616-94-6	Phosgene (0.17%) CAS 75-44-5	Phosphine (0.67%) CAS 7803-51-2
Selenium Hexafluoride (1.67%) CAS 7783-79-1	Silicon Tetrafluoride (15%) CAS 7783-61-1	Stibine (0.67%) CAS 7803-52-3
Sulfur Tetrafluoride (1.33%) CAS 7783-60-0	Tellurium Hexafluoride (0.83%) CAS 7783-80-4	Trifluoroacetyl Chloride (6.93%) CAS 354-32-5
Tungsten Hexafluoride (7.10%) CAS 7783-82-6		

Less Common *Laboratory* Chemicals of Interest

Contact Environmental Health and Safety (EHS) prior to ordering or receiving quantities of **.25 pounds or more in concentration of 30%** or more of these materials.

Arsenic trichloride CAS 7784-34-1	N,N-(2diethylamino)ethanethiol CAS 108-02-1	o,o-Diethyl S- [2(diethylamino)ethyl] phosphorothiolate CAS 78-53-5
Diethyl Methylphosphonite CAS 15715-41-0	N,N-Diethyl phosphoramidic dichloride CAS 1498-54-0	N,N-(2- diisopropylamino)ethanethiol CAS 5842-07-9
N,N-Diisopropyl phosphoramidic dichloride CAS 23306-80-1	N,N- (2dimethylamino)ethanethiol CAS 108-02-1	N,N-Dimethyl phosphoramidic dichloride CAS 677-43-0
N,N-(2- diisopropylamino)ethanethiol CAS 5842-07-9	N,N-Diisopropyl phosphoramidic dichloride CAS 23306-80-1	Ethylphosphonothioic dichloride CAS 993-43-1
Isopropylphosphonothioic dichloride CAS 1498-60-8	Methylphosphonothioic dichloride CAS 676-98-2	Nitrogen mustard hydrochloride CAS 55-86-7
Thiodiglycol CAS 111-48-8		

Uncommon *Laboratory* Chemicals of Interest

Contact Environmental Health and Safety (EHS) prior to ordering or receiving quantities of 5 pounds or more of these materials.

Boron tribromide CAS 10294-33-4	Boron trichloride CAS 10294-34-5	Bromine chloride CAS 13863-41-7
Bromine trifluoride CAS 7787-71-5	Nitrogen trioxide CAS 10544-73-7	Nitrosyl chloride CAS 2696-92-6
Phosphorus trichloride CAS 7719-12-2		