

STATE OF COLORADO

Bill Owens, Governor
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Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

September 6, 2005

RE: Recycling Unit Waste Disposal

Dear Owners/Managers:

The Colorado Department of Public Health and the Environment Hazardous Materials Waste Management Division is sending this letter to businesses that use recycling/distillation units. **If you recycle paints and solvents at your facility, this letter applies to you.**

The purpose is to clarify the hazardous waste regulations as they apply to the disposal of recycling unit/distillation waste. During a recent survey conducted, we found that many businesses that use recycling/distillation units are illegally disposing of waste pucks, sludge, or residue from the unit in the trash.

Typically lacquer thinners contain solvents like toluene and/or methyl ethyl ketone. Use of these lacquer thinners creates a listed hazardous waste. Any wastes that are in contact with the spent lacquer thinners including recycling/distillation waste, still bottoms, pucks, sludge, etc., are listed hazardous wastes and must be disposed of at a hazardous waste disposal facility. These wastes are hazardous regardless of analysis showing no detection of the listed compounds. **Whether your waste is wet or dry, it is illegal to dispose of the waste from recycling/distillation units in the trash if your lacquer thinner contains listed solvents.**

The Division believes there are many benefits to recycling through the use of recycling/distillation units. However the misconception that the waste from recycling/distillation units can be thrown into the trash has resulted in illegal disposal that can cause harm to human health and the environment.

If your waste is hazardous, you cannot throw it into the trash. This waste must be sent to a hazardous waste disposal facility. Hazardous waste thrown into the trash could result in an enforcement action with fines up to \$15,000 per day per violation.

If you were informed by a vendor that the waste generated from the recycling/distillation unit can legally be disposed of in the municipal trash, please contact us immediately. We will contact these sales people and their companies and give them the correct information.

If you have questions regarding this issue or any other hazardous waste regulations, call the Customer Technical Assistance line at 303-692-3320 or check our website at <http://www.cdphe.state.co.us/hm/>. We appreciate your cooperation in complying with the Colorado Hazardous Waste Regulations.

Sincerely,

Joyce Williams, Hazardous Waste Compliance Unit

Recycling Unit Waste Disposal Frequently Asked Questions



Colorado Department
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1. How do I know if this letter applies to my business?

If you recycle any solvents, degreasers, or lacquer thinners in your business, this letter may apply to you. Check the Material Data Safety Sheet (MSDS) and product label for each product that you use to see if any of the compounds listed in Table 1 are present. Be aware that these compounds may be listed under a synonym or a manufacturer-specific code, so check the CAS number for each compound, too. If you need assistance obtaining an MSDS, contact your product supplier or the product manufacturer.

2. What do I do if my solvent or lacquer thinner has one or more of these compounds?

If your solvent or thinner has one or more of these compounds, check the MSDS and product label to determine what percentage (by volume) of the product is made up of those compounds. If the product is made up of 10% or more of one or more of the listed compounds, then this letter applies to your business and you are generating F-listed hazardous wastes.

3. What if I blend my solvents and thinners before use?

If you mix or blend your solvents and thinners before use, determine the percentage of each compound listed in Table 1 that is in each product before blending. Knowing the proportion of each product blended, determine the percentage of each listed compound in the resulting blend. If the blended material has a total of 10% or more of one or more of the compounds listed in Table 1 before you use it, then this letter applies to your business and you are generating F-listed hazardous wastes.

4. What if I mix my used solvents and lacquer thinners all together after use and the resultant mixture has less than 10% by volume of one or more of the compounds listed in Table 1?

The determination whether or not you are generating an F-listed solvent is based on the concentration of the compounds in the solvent or solvent mixture before use. Once you use a product containing 10% or more of one or more of the compounds listed in Table 1, you have generated an F-listed hazardous waste. If you mix this used solvent or thinner with other wastes, the resultant mixture is also an F-listed hazardous waste even if the other wastes do not contain any listed compounds.

5. If I use a recycling or distillation unit to recycle my used solvents and thinners, why is the resultant sludge or “puck” hazardous waste?

Although the sludge or hard puck resulting from the recycling of F-listed solvents or solvent mixtures bears little resemblance to the original waste, it is hazardous waste because it is “derived from” a listed hazardous waste.

6. How can I avoid having to manage my recycling or distillation unit residues as hazardous waste?

You can avoid having to manage your recycling or distillation unit residues as hazardous waste by switching the types of solvents and thinners that you use to products that do not contain compounds listed in Table 1 at concentrations greater than or equal to 10% by volume. Remember, putting even a very small amount of a listed hazardous waste into the recycling or distillation unit will cause all of the resulting sludge or puck to be a listed hazardous waste.

Table 1 F-listed solvents and common synonyms (not comprehensive list)

Ingredient	CAS Number	Synonyms
Acetone	67-64-1	2-propanone, Dimethyl ketone, Propanone, Allylic alcohol, Dimethylformaldehyde, Dimethylketal, DMK, Ketone propane, Pyroacetic acid, Pyroacetic ether
Benzene	71-43-2	Benzol, Coal naphtha, Cyclohexatriene, Phenyl hydroxide, Annulene, Benzole, Benzolene, Carbon oil, Phenyl hydride, Pyrobenzol, Phene
Carbon disulfide	75-15-0	Carbon bisulfide, Carbon sulfide, Dithiocarbonic anhydride, Sulphocarbonic anhydride
Carbon tetrachloride	56-23-5	Carbon tet, Benzinoform, Freon 10, Halon 104, methane tetrachloride, R10, Perchloromethane, Necatorina
Chlorobenzene	108-90-7	Phenyl chloride, MCB, Chlorobenzol, Tetrosin SP
Chloroform	67-66-3	Trichloromethane, Methyl Trichloride, TCM, R20, Freon 20, Trichloroform, Methene Trichloride, Formyl Trichloride
Chlorotrifluoromethane	75-72-9	Trifluoromethyl chloride, ARCTON 3, Freon 13, R13, Trifluorochloromethane, Trifluoromonochlorocarbon
Cresols, cresylic acid	1319-77-3	Methyl phenol, Tar acids, Hydroxytoluenes, Oxytoluene,
m-cresol	108-39-4	Methylphenois, Tekresol, Bacillol
o-cresol	95-48-7	
p-cresol	106-44-5	
Cyclohexanone	108-94-1	Cyclohexyl ketone, Anone, Hytrol O, Nadone, Pimelic ketone, Sextone, Hexanon, Ketoexamethylene
Dichlorodifluoro methane	75-71-8	ARCTON 12, CFC-12, Freon 12, Halon 122, Isotron 12, UCON 12
2-ethoxyethanol	110-80-5	ethylene glycol ethyl ether, Cellosolve, ethyl glycol, hydroxy ether, EGEE, Poly-solv EE, Solvulose, Dowanol EE, Ektasolve EE, ethyl cellosolve, Glycol ether EE, glycolethyl ether, Jeffersol EE, Oxitol
Ethyl acetate	141-78-6	Acetic ether, Acetidin, Vinegar naphtha, Ethyl ethanoate, Acetic acid, Ethyl ester
Ethyl benzene	100-41-4	Phenylethane, EB, Ethylbenzol
Ethyl ether	60-29-7	Diethylether, Diethyloxide, ether, Ethoxyethane, ethyl oxide, Pronarcol
Isobutanol	78-83-1	Isobutyl alcohol, isopropylcarbinol, Fermentation butyl alcohol, 2-methyl-1 propanol, methyl propanol

Methanol	67-56-1	Carbinol, Methylol, Pyroxylic spirits, Wood alcohol, Wood naphtha, Wood spirit, Methyl alcohol, Colonial spirit, Coat-B 1400, Hydromethane, Methyl hydroxide, Hydroxymethane, Surflo-B17, Wilbur-Ellis Smut-Guard
Methylene chloride	75-09-2	Dichloromethane, Methylene dichloride
Methyl ethyl ketone	78-93-3	2-butanone, 3-butanone, butanone, MEK, Methyl acetone, Meetco, 2-oxybutane
Methyl isobutyl ketone	108-10-1	Hexone, Isopropyl acetone, MIBK, MIK, 4-methyl-2-pentanone
n-butyl alcohol	71-36-3	Butanol, Methylolpropane, Butyl alcohol, 1-butanol, 1-hydroxybutane, Butyl hydroxide, Hemostyp, Propylcarbinol, Propylmethanol
Nitrobenzene	98-95-3	Nitrobenzol, Oil of Mirbane, NB
2-nitropropane	79-46-9	dimethylnitromethane, 2-NP, Ni-par S-20, Isonitropropane, Sec-nitropropane
Ortho-dichlorobenzene	95-50-1	1,2-dichlorobenzene, Chloroben, Dilantin DB, Dowtherm E
Pyridine	110-86-1	Azine, Azabenzene, CP 32
Tetrachloroethylene	127-18-4	Perchloroethylene, Perc, PCE, Perclene, Tetracap
Tetrafluoromethane	75-73-0	ARCTON 0, Carbon fluoride, Carbon tetrafluoride, Freon 14, Halon 14, R14, Perfluoromethane
Toluene	108-88-3	Methylbenzene, Phenylmethane, Toluol, Methylbenzol, Antisal 1a, methacide, CP 25, Methylbenzol
1,1,1-trichloroethane	71-55-6	Aerothene, Chlorothene, Inhibisol, Algylen, Methyl chloroform, TCEA, Trielene
1,1,2-trichloroethane	79-00-5	Vinyl trichloride, 1,1,2-TCE, Ethane 1,1,2-trichloro, beta-Trichloroethane
Trichloroethylene	79-01-6	Perm-a-chlor, TRI, Triclene, Vestrol, ethylene trichloride
Trichlorofluoromethane	75-69-4	Fluoro chloroform, CFC-11, Arcton 9, Arcton 11, Genetron, Racon, Isotron, Freon 11, UCON 11
1,1,2-trichloro-1,2,2-trifluoroethane	76-13-1	Gensolv D, TTE, Arcton 63, Arklone P, Freon 113, R113, 1,1,2 trichlorotrifluoroethane, Daiflon S 3, Flugene 113, Genetron 113, TCTFE, UCON 113
Xylene	1330-20-7	Dimethylbenzene, Methyltoluene, Xylol, Aromatic Oil, Violet 3



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