



Managing Towels, Wipes and Sorbents

Waste/Hazardous Waste #4.61, February 2001

This fact sheet outlines management options for reusable and disposable sorbents — cloth towels, paper wipes, rags, and other absorbent and adsorbent materials.

Inside

Environmental

Concerns 1

Reducing Waste 1

Management Flow

Chart 1

Reusable/Launderable ..

Sorbents 2

Disposable Sorbents 3

Ignitable Solvents 4

F-Listed Solvents 4

Toxicity Characteristic ...

Wastes 4

More Information 4

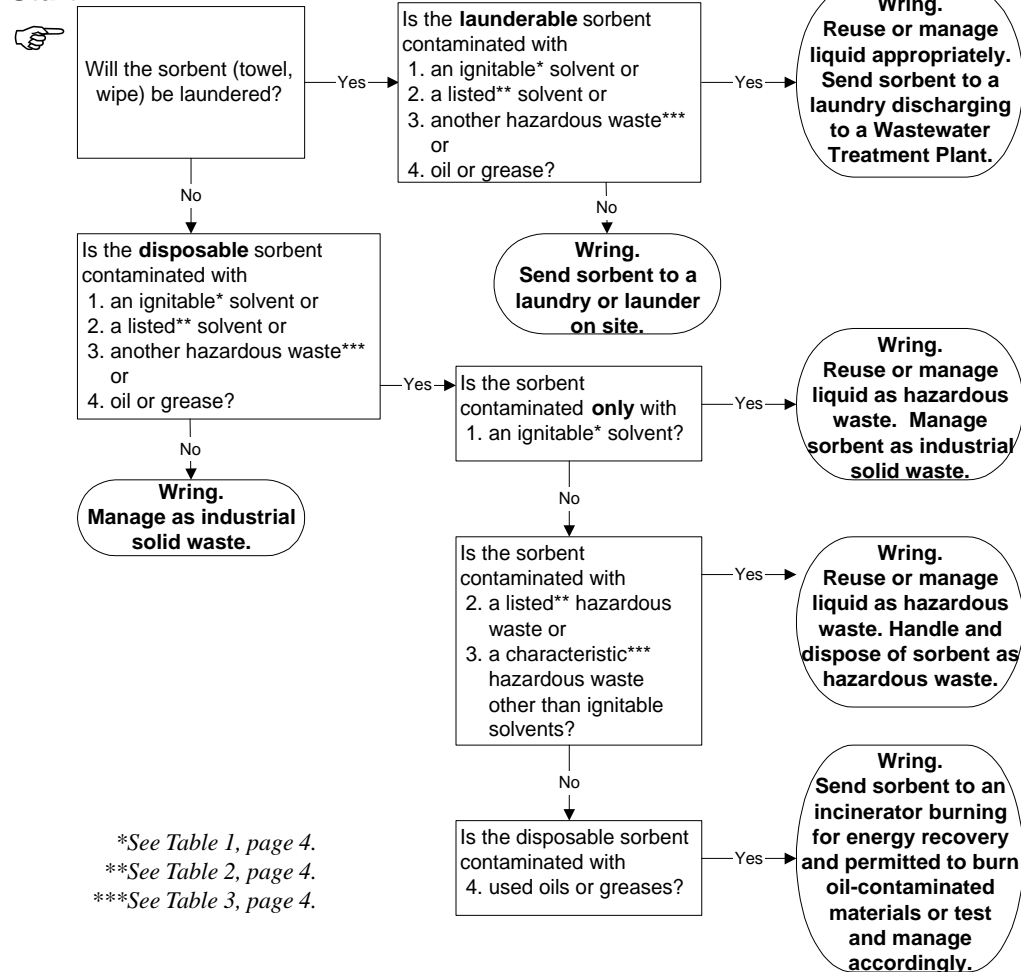
Environmental Concerns

Many businesses use *sorbents* — cloth towels, paper wipes or other absorbent or adsorbent materials — with solvents, paints, inks or oils. Because of these contaminants, used sorbents may be hazardous and require special handling. Inappropriate handling may impact employee health and safety. Improper disposal may result in environmental harm and may increase your liability.

Reducing Waste

The Minnesota Pollution Control Agency (MPCA) strongly recommends improving housekeeping methods, using sorbents, towels and wipes until they are no longer usable, substituting non-hazardous solvent for hazardous, and utilizing every possible method to reduce the number of sorbents (towels, wipes) generated by your business.

Start



*See Table 1, page 4.

**See Table 2, page 4.

***See Table 3, page 4.

**Chart 1: Sorbents (Towels/Wipes) that are Reused, Recycled and/or Laundered***(See Chart 2 for management of spent launderable sorbents that are no longer reusable.)*

Used with:	Management	Notes
<ul style="list-style-type: none"> • F001, F002, F004 or F005 solvents (<i>see Table 2</i>) • Solvent mixtures containing 10% or more F-listed solvents • Hazardous paints or inks containing toxic metals such as barium or chromium (<i>see Table 3</i>) 	<ol style="list-style-type: none"> 1. Remove free liquid by wringing*. Reuse extracted liquid or manage it as hazardous waste. 2. Manage sorbents as hazardous on site: Store in a covered container marked with the words <i>Hazardous Waste — Solvent Sorbents [Towels/Wipes]</i>. 3. Send sorbents to a commercial laundry which has a discharge permit from its local wastewater treatment plant. If sorbents are picked up weekly or more often, keep a chart of pick-up dates and pounds picked up. (In this case, an accumulation start date and weekly container inspection is not necessary.) 	<ul style="list-style-type: none"> • Air drying of sorbents must be accompanied by solvent recovery and may require a hazardous waste treatment permit. Contact the MPCA for more information. • If you are a small or large quantity generator, train employees on proper sorbent management. • In Greater Minnesota, small and large quantity generators report amount of used sorbents on annual hazardous waste license application.** • Do not launder sorbents on site. • Do not add waste solvents to used sorbents or sorbent storage container. • If you send sorbents to a commercial laundry, current MPCA policy states: No manifest is needed for transport. The laundry does not need a hazardous waste facility permit.
Ignitable solvents only, D001 or F003 (<i>see Table 1</i>)	<ol style="list-style-type: none"> 1. Remove free liquid by wringing.* Reuse extracted liquid or manage it as a hazardous waste. 2. Sorbents containing no free liquid (wrung) can be managed as non-hazardous; no hazardous waste rules apply.*** 3. Send sorbents to a commercial laundry which has a discharge permit from its local wastewater treatment plant. 	<ul style="list-style-type: none"> • Mark container <i>Used Sorbents [Towels/Wipes] — Wrung</i> to distinguish from hazardous sorbents. • In Greater Minnesota, do not report these sorbents on your annual hazardous waste license application.** • Laundering on site may require a discharge permit from your local wastewater treatment plant. Also, check with local fire marshal for fire protection requirements.
Oil	<ol style="list-style-type: none"> 1. Remove free liquid by wringing.* Reuse extracted liquid or manage it as used oil. 2. Send sorbents to a commercial laundry which has a discharge permit from its local wastewater treatment plant. 	<ul style="list-style-type: none"> • Mark the container with the words <i>Used Oil Sorbents [Towels/Wipes]</i>. • No manifest is needed for transport. • Laundry does not need a hazardous waste facility permit. • In Greater Minnesota, do not report these sorbents on your annual hazardous waste license application.**

Mechanical wringing or extractor is best.***In the metro area: check with your county for reporting requirements.*******Anticipated federal rules may require management as hazardous waste.**

Note: *Provided your laundry service approves, it is acceptable to co-mingle hazardous and non-hazardous towels, wipes and/or sorbents that will be sent to a commercial laundry. While on site, follow storage and marking requirements for hazardous waste. If you cannot keep accurate records of the amount of hazardous towels, wipes and sorbents, you must report them all as hazardous.*

**Chart 2: Sorbents (Towels/Wipes) that are Destined for Disposal After Use**

Used with:	Management	Notes
<ul style="list-style-type: none"> • F001, F002, F004 or F005 solvents (<i>see Table 2</i>) • Solvent mixtures containing 10% or more F-listed solvents • Hazardous paints or inks containing toxic metals such as barium or chromium (<i>see Table 3</i>) 	<ol style="list-style-type: none"> 1. Remove free liquid by wringing*. Reuse extracted liquid or manage it as hazardous waste. 2. Manage sorbents as hazardous; all hazardous waste rules apply. <ul style="list-style-type: none"> • Store in a covered container marked with the words <i>Hazardous Waste — Solvent Sorbents [Towels/Wipes]</i>. • Inspect containers weekly; keep a record of inspections. • Ship within required storage time limits. (Satellite accumulation is an option if you accumulate slowly.) • Use a hazardous waste manifest and licensed hazardous waste transporter and send to a hazardous waste facility. 	<ul style="list-style-type: none"> • Air drying of sorbents must be accompanied by solvent recovery and may require a hazardous waste treatment permit. Contact the MPCA for more information. • If you are a small or large quantity generator, train employees on proper sorbent management. • In Greater Minnesota, report amount of used sorbents on annual hazardous waste license application.** • Do not add waste solvents to used sorbents or sorbent storage container. • Storage time limits are based on generator size. (For more information, request MPCA hazardous waste fact sheet #1.04, <i>Mark and Store Waste Correctly</i>.)
Ignitable solvents only, D001 or F003 (<i>see Table 1</i>)	<ol style="list-style-type: none"> 1. Remove free liquid by wringing.* Reuse extracted liquid or manage it as a hazardous waste. 2. Sorbents that have been wrung dry or that become dry through use are non-hazardous; manage as an industrial solid waste. *** 3. Sorbents that are not dry should be managed as F001 rags above. 	<ul style="list-style-type: none"> • Mark container <i>Used Sorbents [Towels/Wipes] — Wrung</i> to distinguish from hazardous sorbents. • In Greater Minnesota, do not report these sorbents on your annual hazardous waste license application.** • Laundering on site may require a discharge permit from your local wastewater treatment plant. Also, check with fire marshal for fire protection requirements.
Oil	<ol style="list-style-type: none"> 1. Reuse sorbent until unusable. Remove free liquid.* Reuse extracted liquid or manage it as used oil. 2. Store sorbents in a closed leakproof container marked with the words <i>Used Oil Sorbents [Towels/Wipes]</i>. 3. Send to an incinerator burning for energy and permitted to burn oily materials. If not burning, evaluate and, based on results, manage as solid or hazardous waste. 	<ul style="list-style-type: none"> • <i>Optional management:</i> Evaluate for toxicity characteristics (<i>see Table 3</i>). If hazardous, manage like sorbents used with F001 solvents above. If nonhazardous, manage as an industrial solid waste. • In Greater Minnesota, report sorbents that are burned for energy recovery or recycled on your annual license application. Do not report non-hazardous sorbents.** • For more information, request MPCA hazardous waste fact sheet # 4.30, <i>Managing Used Oil and Related Wastes</i>.

*Mechanical wringing or extractor is best.

**In the metro area: check with your county for reporting requirements.

***Anticipated federal rules may require management as hazardous waste.

Additional Requirements

Consult your laundry service and your local fire marshal for additional applicable requirements.

**Table 1: Ignitable Solvents**

F003	acetone, cyclohexanone, ethyl acetate, ethyl benzene, ethyl ether, methanol, methyl isobutyl ketone, n-butyl alcohol, xylene and all spent solvent mixtures/ blends containing, before use, only the above spent nonhalogenated solvents.
D001	All liquid solvents and mixtures not listed above having a flash point below 140°F. <i>The flash point can be found on the Material Safety Data Sheet (MSDS).</i>

Table 2: F-listed Solvents (Toxic)

F001	(<i>halogenated and used for degreasing</i>) carbon tetrachloride; chlorinated fluorocarbons, methylene chloride, tetrachloroethylene, 1,1,1-trichloroethane, trichloroethylene and all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more by volume of one or more F001, F002, F004 or F005 solvents.
F002	(<i>halogenated</i>) chlorobenzene, methylene chloride, orthodichlorobenzene, tetrachloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, trichlorofluoromethane, 1,1,2-trichloro-1,2,2-trifluoroethane and all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more F001, F002, F004 or F005 solvents.
F004	(<i>non-halogenated</i>) cresols and cresylic acid, nitrobenzene and all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more F001, F002, F004 or F005 solvents.
F005	(<i>non-halogenated</i>) benzene, carbon disulfide, 2-ethoxyethanol, isobutanol, methyl ethyl ketone, 2-nitropropane, pyridine, toluene and all spent solvent mixtures/blends containing, before use, a total of ten percent or more by volume of one or more F001, F002, F004 or F005 solvents.

More Information

Your metropolitan county and the Minnesota Pollution Control Agency have staff available to answer waste management questions. For more information, contact your metropolitan county hazardous waste office or the MPCA office closest to your county.

Metro County Hazardous Waste Offices

Anoka County	(763) 422-7093
Carver County	(952) 361-1800
Dakota County	(952) 891-7557
Hennepin County	(612) 348-8100
Ramsey County	(651) 773-4466
Scott County	(952) 496-8177
Washington County	(651) 430-6655

Minnesota Pollution Control Agency

Toll free	(800) 657-3864
Brainerd	(218) 828-2492
Detroit Lakes	(218) 847-1519
Duluth	(218) 723-4660
Marshall	(507) 537-7146
Rochester	(507) 285-7343
St. Paul	(651) 297-2274

MPCA Web Site: <http://www.pca.state.mn.us>

Table 3: Toxicity Characteristic Wastes, Maximum Allowable Concentrations & Waste Codes

Hazardous Contaminant	Maximum Allowable Concentration in mg/L	Waste Code
Arsenic*	5.0	D004
Barium*	100.0	D005
Benzene	0.5	D018
Cadmium*	1.0	D006
Carbon tetrachloride	0.5	D019
Chlordane	0.03	D020
Chlorobenzene	100.0	D021
Chloroform	6.0	D022
Chromium*	5.0	D007
<i>o</i> -Cresol	200.0**	D023
<i>m</i> -Cresol	200.0**	D024
<i>p</i> -Cresol	200.0**	D025
Cresol**	200.0	D026
1,4-Dichlorobenzene	7.5	D027
1,2-Dichloroethane	0.5	D028
1,1-Dichloroethylene	0.7	D029
2,4-Dichlorophenoxyacetic acid (2,4-D)	10.0	D016
2,4-Dinitrotoluene	0.13	D030
Endrin	0.02	D012
Heptachlor	0.008	D031
Hexachlorobenzene	0.13	D032
Hexachloro-1,3-butadiene	0.5	D033
Hexachloroethane	3.0	D034
Lead*	5.0	D008
Lindane	0.4	D013
Mercury*	0.2	D009
Methoxychlor	10.0	D014
Methyl ethyl ketone	200.0	D035
Nitrobenzene	2.0	D036
Pentachlorophenol	100.0	D037
Pyridine	5.0	D038
Selenium*	1.0	D010
Silver*	5.0	D011
Tetrachloroethylene	0.7	D039
2,4,5-Trichlorophenol	400.0	D041
2,4,6-Trichlorophenol	2.0	D042
2,4,5-Trichlorophenoxypropionic acid (Silvex)	1.0	D017
Vinyl chloride	0.2	D043

*Toxic Metals

**Laboratory analyses that show any individual cresol above the 200.0 mg/L level are hazardous for that reason. For analyses where *o*-, *m*- and *p*-cresol concentrations cannot be differentiated, the total cresol concentration is used.