



Spill Treatment Kits

Application

SPILL-X Spill Treatment Kits have been developed by Ansul to economically treat small spills of many mineral and organic acids, caustics, and organic solvents or fuels that may occur in laboratories or other work areas where chemicals are used. The convenient Spill Treatment Kits provide easy access to the proper spill control agent for a particular type of chemical spill. The easy to handle polypropylene containers allow for either a pouring-type application of agent or a shaker-type application, depending on the nature of the spilled chemical.

Description

A choice of SPILL-X spill control agents are available in either a Multipurpose Spill Treatment Kit or individual Spill Treatment Kits for acid, caustic, or solvent spills.

▶ SPILL-X® MULTIPURPOSE SPILL TREATMENT KIT



The SPILL-X Multipurpose Spill Treatment Kit contains six (6) handy polypropylene containers with two (2) containers of each type of SPILL-X spill control agent in a convenient storage carton as follows:

▶ SPILL-X-A ACID NEUTRALIZER/SOLIDIFIER

Used to treat small spills of many mineral and organic acids, SPILL-X-A agent can both neutralize and solidify the spilled material, when properly applied. It is a magnesium oxide based spill control agent containing chemical additives, and is a proprietary product. The resultant agent is free-flowing, non-abrasive, and when used on an acid spill will itself produce no toxic by-products. SPILL-X-A agent is red in color to differentiate it from other spill control agents.

▶ SPILL-X-C CAUSTIC NEUTRALIZER/SOLIDIFIER

Used to treat small spills of many caustics and organic bases, SPILL-X-C agent can both neutralize and/or solidify the spilled material, when properly applied. It is a citric acid based spill control agent containing chemical additives, and is a proprietary product. The resultant agent is free-flowing, non-abrasive, and when used on a caustic spill will itself produce no toxic by-products. SPILL-X-C agent is tan in color to differentiate it from other spill control agents.

▶ SPILL-X-S SOLVENT ADSORBENT

Used to treat small spills of many organic liquid solvents and fuels (other than organic peroxides or hydrazine compounds), SPILL-X-S agent can both rapidly adsorb the spilled material and elevate the flashpoint above 140 °F (60 °C), when properly applied. It is a proprietary activated carbon based spill control agent, and conforms to rigorous specifications. The agent is free-flowing, non-abrasive, and when used on an organic solvent or fuel spill will itself produce no toxic by-products. SPILL-X-S agent is black in color to differentiate it from other spill control agents.

▶ SPILL-X-A® ACID NEUTRALIZER SPILL TREATMENT KIT



The SPILL-X-A Acid Neutralizer Spill Treatment Kit contains six (6) handy polypropylene containers of SPILL-X-A Acid Neutralizer/Solidifier in convenient storage cartons as described above.

▶ SPILL-X-C® CAUSTIC NEUTRALIZER SPILL TREATMENT KIT



The SPILL-X-C Caustic Neutralizer Spill Treatment Kit contains six (6) handy polypropylene containers of SPILL-X-C Caustic Neutralizer/Solidifier in convenient storage cartons as described above.

▶ SPILL-X-S® SOLVENT ADSORBENT SPILL TREATMENT KIT



The SPILL-X-S Solvent Adsorbent Spill Treatment Kit contains six (6) handy polypropylene containers of SPILL-X-S Solvent Adsorbent in convenient storage cartons as described above.

Performance

SPILL-X-A Agent for Acid Spills – effective on spills of mineral and organic acids and has been shown by Ansul to be more efficient in cleanup than other spill control treatment methods or agents. The ability of SPILL-X-A agent to safely neutralize and solidify acids is unmatched by any known environmentally nonhazardous material in the marketplace.

SPILL-X-C Agent for Caustic Spills – effective on spills of caustics and organic bases. The ability of SPILL-X-C agent to neutralize/solidify and neutralize caustics is unmatched by any known environmentally nonhazardous material in the marketplace.

Performance (Continued)

SPILL-X-S Agent for Solvent/Fuel Spills
 – effective on spills of many organic liquid solvents and fuels. It reduces evaporative losses by adsorption, and when topped off with an additional layer of SPILL-X-S agent elevates the flash-point of most organic solvents. SPILL-X-S agent will adsorb a wide range of organic solvents, monomers and fuels.

Physical Properties

	<u>SPILL-X-A Agent</u>	<u>SPILL-X-C Agent</u>	<u>SPILL-X-S Agent</u>
Apparent Density	1.042 g/cc	0.980 g/cc	0.48 g/cc
Product pH	12.0 – 12.5	2.39	–
Hygroscopicity	less than 2%	less than 2%	–
Iodine Number	–	–	1100 minimum
Ash	–	–	10% maximum
Maximum Moisture	–	–	3%
Carbon Tetrachloride Number	–	–	67 minimum
Surface Area	–	–	1300-1500 m ² /g
Fill Weight	2.5 lb. (1.13 kg)	2.0 lb. (.91 kg)	1.0 lb. (.45 kg)

Particle Size Distribution

<u>SPILL-X-A Agent</u>		<u>SPILL-X-C Agent</u>		<u>SPILL-X-S Agent</u>	
<u>Wt. %</u>	<u>Screen Mesh-Tyler Sieves-U.S. Standard</u>	<u>Wt. %</u>	<u>Screen Mesh-Tyler Sieves-U.S. Standard</u>	<u>Wt. %</u>	<u>Screen Mesh-Tyler Sieves-U.S. Standard</u>
0 – 2	20	0 – 3	20	0 – .4	maximum over 40
13.7 – 25.5	40	4 – 8	40	0 – 2	50
40 – 53	100	70 – 80	100	30 – 80	80
13 – 22	200	5 – 8	200	10 – 40	100
6 – 16	(–) 325	1 – 3	325	5 – 25	140
0 – 7	(–) 200	4 – 10	Pan	0 – 10	200

SPILL-X-C Caustic Neutralizer/Solidifier
 (per 2.0 lb. (.91 kg) container)

Treatment Information

SPILL-X-A Acid Neutralizer/Solidifier (per 2.5 lb. (1.13 kg) container)

<u>Type of Acid and % Concentration</u>		<u>Neutralization/Solidification</u>	
		<u>Pints</u>	<u>(L)</u>
Acetic	99%	2.40	(1.14)
Adipic	10%	1.96	(0.93)
Acrylic	99%	1.96	(0.93)
Butyric	99%	1.96	(0.93)
Chlorosulfonic	99%	1.57	(0.74)
Cyanoacetic	50%	1.96	(0.93)
Formic	90%	1.96	(0.93)
Hydroiodic	50%	1.96	(0.93)
Hydrochloric	37%	2.12	(1.0)
Hydrofluoric	49%	1.96	(0.93)
Methacrylic	98%	1.96	(0.93)
Nitric	70%	4.42	(2.08)
Propionic	99%	1.96	(0.93)
Perchloric	70%	2.35	(1.11)
Phosphoric	85%	2.42	(1.15)
Sulfuric	93%	2.42	(1.15)

<u>Type of Caustic</u>	<u>Neutralization/Solidification</u>	
	<u>Pints</u>	<u>(L)</u>
Ammonium Hydroxide (29%)	3.26	(1.54) (Neutralization only)
Aniline	0.72	(0.34)
Diethanolamine	0.71	(0.34)
Diethylamine	0.89	(0.42)
Diethylenetriamine	0.88	(0.42)
Dimethylformamide	0.53	(0.25)
Ethylenediamine	0.70	(0.33)
Morpholine	0.88	(0.42)
Potassium Hydroxide (45%)	2.16	(1.02) (Neutralization only)
Pyridine	0.72	(0.34)
Sodium Hydroxide (50%)	1.36	(0.64)

NOTE: For additional user information, refer to label instructions on the individual containers.

Treatment Information (Continued)

SPILL-X-S Solvent Adsorbent
(per 1.0 lb. (.45 kg) container)

Type of Solvent or Fuel	Flashpoint		Adsorption		Additional Agent Required To Reduce Evaporation		Additional Agent Required To Elevate Flashpoint To Above 140 °F (60 °C)	
	°F	°C	Pints	(L)	lb.	(kg)	lb.	(kg)
Flammable:								
Acetone	0	-18	1.60	0.76	1.91	0.87	2.16	1.44
Acrylonitrile	30	-1	1.60	0.76	1.91	0.87	2.16	1.44
Avgas 100	-46	-43	1.20	0.57	1.50	0.68	2.27	1.48
Benzene	12	-11	1.20	0.57	1.09	0.49	0.55	0.25
Butylacetate	72	22	1.04	0.49	1.09	0.49	1.39	0.63
Butylether	77	25	0.96	0.45	0.55	0.25	0.80	0.36
Butyraldehyde	20	-7	1.04	0.49	1.09	0.49	0.73	0.33
Carbon Disulfide	-22	-30	0.88	0.42	0.64	0.29	0.43	0.20
Cumene	111	44	1.04	0.49	1.36	0.62	2.45	1.11
Cyclohexane	-4	-20	0.96	0.45	0.27	0.12	1.48	0.67
Decane	115	46	1.04	0.49	1.09	0.49	0.84	0.38
1,2-Dichloroethane	56	13	0.72	0.34	0.37	0.17	0.53	0.24
Diethylamine	-15	-26	1.20	0.57	1.64	0.74	0.50	0.23
1-Diethylamino-2-Propanol	92	33	1.20	0.57	1.09	0.49	0.55	0.25
N,N-Diethylethanolamine	120	49	0.80	0.39	0.43	0.20	0.72	0.33
Dimethylformamide	136	58	0.64	0.30	0.05	0.02	0.19	0.09
Ethanol	55	13	0.96	0.45	0.27	0.12	0.77	0.35
Ethylenediamine	110	43	0.96	0.45	1.36	0.62	1.39	0.63
Ethylene-Glycoldimethylether	104	40	1.04	0.49	0.27	0.12	1.09	0.49
Fuel Oil #2	120	49	0.96	0.45	1.09	0.49	0.95	0.43
Gasoline (50-100 Octane)	-45	-43	0.96	0.45	0.37	0.17	0.51	0.23
Gasoline (100-130 Octane)	-50	-46	1.36	0.64	1.09	0.49	1.18	0.54
Gasoline, Unleaded	-40	-40	1.36	0.64	1.09	0.49	1.18	0.54
Heptane	25	-4	1.28	0.61	1.09	0.49	0.18	0.08
Hexane	-7	-22	0.96	0.45	1.60	0.73	1.07	0.49
Isopropylalcohol	53	12	1.44	0.68	2.35	1.07	1.28	0.58
Isopropylamine	-35	-37	1.20	0.57	0.55	0.25	2.09	0.95
Jet A-1 Avtur	110-150	43-66	0.88	0.42	0.29	0.13	1.15	0.52
Methanol	52	11	0.96	0.45	0.27	0.12	0.57	0.26
Methyl Ethyl Ketone	22	-6	1.20	0.57	1.09	0.49	6.18	2.80
Methylisobutylketone	73	23	1.52	0.72	1.09	0.49	2.39	1.08
Morpholine	100	38	0.96	0.45	0.55	0.25	1.00	0.45
Nonane	88	31	1.04	0.49	0.27	0.12	1.32	0.60
Octane	56	13	0.80	0.39	0.51	0.23	0.86	0.39
Pentane	-40	-40	0.88	0.42	1.39	0.63	1.07	0.49
Petroleum Ether	20	-7	1.92	0.91	3.05	1.38	1.39	0.63
Pyridine	68	20	1.60	0.76	1.91	0.87	0.57	0.26
Styrene	88	31	1.04	0.49	1.09	0.49	0.84	0.38
Toluene	40	4	0.96	0.45	0.55	0.25	1.00	0.45
Triethylamine	20	-7	0.96	0.45	1.09	0.49	0.45	0.20
Vinyl Acetate	18	-8	1.44	0.68	1.18	0.54	1.71	0.78
Xylene, O-	90	32	1.20	0.57	1.09	0.49	1.18	0.54
Xylene, P-	81	27	0.96	0.45	0.27	0.12	0.98	0.44
Nonflammable:								
1-Amino-2-Propanol	171	77	0.96	0.45	0.27	0.12	0.98	0.44
Aniline	158	70	0.88	0.42	0.45	0.20	0.00	0.00
2-Butoxyethanol	160	71	0.80	0.39	0.55	0.25	0.00	0.00
Carbon Tetrachloride	N/A	-	0.88	0.42	0.27	0.12	0.00	0.00
Chloroform	N/A	-	1.04	0.49	1.36	0.62	0.00	0.00
Diethanolamine	305	152	1.20	0.57	1.36	0.62	0.00	0.00
Diethyleneglycol Dimethylether	201	94	0.88	0.42	0.45	0.20	0.00	0.00
Diethylene Triamine	215	102	1.20	0.57	0.27	0.12	0.00	0.00
Ethanolamine	200	93	0.88	0.42	0.82	0.37	0.00	0.00
5-Ethyl-2-Methylpyridine	165	74	0.88	0.42	0.45	0.20	0.00	0.00
Toluene Diisocyanate	275	135	0.88	0.42	0.45	0.20	0.00	0.00
1,1,1-Trichloroethane	N/A	-	0.64	0.30	0.32	0.15	0.00	0.00
1,1,2-Trichloroethane	N/A	-	1.92	0.91	1.44	0.65	0.00	0.00
Triethylene Tetramine	275	135	1.20	0.57	3.53	1.60	0.00	0.00

NOTE: For other chemicals for which SPILL-X agents are suitable, refer to the Ansil Spill Control Treatment Guide, Form No. SC-76278.

Ordering Information

- ▶ **SPILL-X MULTIPURPOSE SPILL TREATMENT KIT** – contains six (6) handy polypropylene containers with two (2) of each type of SPILL-X spill control agent in convenient storage carton (Part No. 77358).
- ▶ **SPILL-X-A ACID NEUTRALIZER SPILL TREATMENT KIT** – contains six (6) handy 2.5 lb. (1.13 kg) polypropylene containers of SPILL-X-A Acid Neutralizer/Solidifier in convenient storage carton (Part No. 77255).
- ▶ **SPILL-X-C CAUSTIC NEUTRALIZER SPILL TREATMENT KIT** – contains six (6) handy 2.0 lb. (.91 kg) polypropylene containers of SPILL-X-C Caustic Neutralizer/Solidifier in convenient storage carton (Part No. 77261).
- ▶ **SPILL-X-S SOLVENT ADSORBENT SPILL TREATMENT KIT** – contains six (6) handy 1.0 lb. (.45 kg) polypropylene containers of SPILL-X-S Solvent Adsorbent in convenient storage carton (Part No. 77265).

Available Support Materials

Ansul Spill Control Treatment Guide (SC-76278)

▶ Other SPILL-X Spill Control Products

For complete details on the full line of SPILL-X Spill Control Products, contact your authorized Ansul Spill Control Products distributor or Ansul at 715-735-7411.

▶ SPILL-X® SPILL CONTROL AGENTS



▶ PORTABLE SPILL-GUN® APPLICATORS



CHEMICAL SPILL TREATMENT KIT



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